

REPUBLIC OF TURKEY  
PRIME MINISTRY



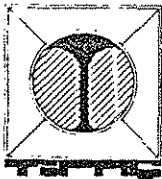
SOUTHEASTERN ANATOLIA PROJECT  
REGIONAL DEVELOPMENT ADMINISTRATION

AGRICULTURAL COMMODITIES MARKETING SURVEY  
PLANNING OF CROP PATTERN  
AND  
INTEGRATION OF MARKETING AND CROP PATTERN STUDIES

VOLUME VI

Appendix D - E - F

AUGUST • 1992 ANKARA



TİPAŞ Tarım - Turizm - İnşaat  
Pazarlama ve Ticaret A.Ş.  
Ankara - Turkey



AFC Agriculture and Food  
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Appendix D: COMPUTER PROGRAM FOR TURGAP

COMPUTER PROGRAM FOR TURGAP

\$TITLE TURGAP-CALIB  
\$OFFSYMLIST OFFSYMKREF

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* -----*
*          *
*          *          T U R G A P          *
*          *          *
*          *          *          MODEL          *
*          *          *
* -----*
*          *
*          *          PERIOD   : 2010          *
*          *          *
*          *          *          VERSION   : BASE RUN          *
*          *          *
* -----*
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*          *          1. SET SECTION ( DEFINITIONS )          *
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\* LAND, LABOR, AND TRACTOR POWER SET DEFINITIONS  
\* FOR THE REST OF TURKEY (ROT).

\* DRY LAND CLASSIFIED ACCORDING TO RAINFALL  
\* IRRIGATED LAND CLASSIFIED ACCORDING TO TEMPERATURE

SETS S AGREGATED LAND TYPES  
/ DRY-EITH, DRY-GOOD, DRY-VGOOD, \*  
IRR-EITH, IRR-GOOD, IRR-POOR, TREE, PASTURE /

L LABOR DIVIDED INTO 4 QUARTERS PER YEAR  
/ LABOR-1Q, LABOR-2Q, LABOR-3Q, LABOR-4Q /  
M TRACTOR POWER DIVIDED INTO 4 QUARTERS PER YEAR  
/ TRACTOR-1Q, TRACTOR-2Q, TRACTOR-3Q, TRACTOR-4Q /  
\* FERTILIZER TYPES FOR ROT AND GAP

F FERTILIZER  
/ NITROGEN, PHOSPHATE /

\* SEED INPUT FOR ROT AND GAP

D SEEDS  
/ S-COMWHEAT, S-DURWHEAT, S-CORN, S-RYE, S-BARLEY, S-RICE,  
S-CHICKPEA, S-DRYBEAN, S-LENTIL, S-DRYPEA,  
S-POTATO, S-EARLYPOT, S-ONION,  
S-FRETOMAT, S-CONTOMAT, S-AUBERGIN, S-MELON, S-CAULIFLW,  
S-WATMELON, S-CARROT, S-CABBAGE, S-CUCUMBER, S-OKRA,  
S-PEPPER, S-LETTUCE, S-SPINACH, S-SQUASH, S-LEEK,  
S-GRUNDNUT, S-SESAME, S-SUNFLWER, S-SOYABEAN,  
S-LINSEED, S-COLZA, S-COTTON, S-TOBACCO, S-SUGRBEET,  
S-ALFALFA, S-VETCH, S-SORGHUM /

\* CROP PRODUCTS

OCR OUTPUT ALL CROPS  
/ COMWHEAT, DURWHEAT, CORN, RYE, BARLEY, RICE,  
CHICK-PEA, DRY-BEAN, LENTIL, DRY-PEA,  
POTATO, EARLY-POT, ONION,  
FRE-TOMATO, CON-TOMATO, AUBERGINE, MELON, CAULIFLOWER,  
WAT-MELON, CARROT, CABBAGE, CUCUMBER, OKRA, PEPPER,  
LETTUCE, SPINACH, SQUASH, LEEK,  
GROUNDNUT, SESAME, SUNFLOWER, SOYABEAN,  
LINSEED, COLZA, COTTON, TOBACCO, SUGARBEET,  
PISTACHIO, HAZELNUT, TAB-OLIVE, OIL-OLIVE, TEA,  
TAB-GRAPE, WINE-GRAPE, SULTANA, FRE-FIGS, DRY-FIGS,  
ORANGE, LEMON,

Appendix D: COMPUTER PROGRAM FOR TURGAP

APPLE, PEARS, FRE-PEACH, PRO-PEACH, APRICOT, CHERRY,  
WILDCHERRY, POMEGRAN,  
ALFALFA, VETCH-FOD, VETCH-GRA, CORN-SIL, SORGHUM, SORGH-SIL /

\* CROP PRODUCTS EXCLUDING FEED CROPS

O1(OCR) OUTPUT CROPS  
/ COMWHEAT, DURWHEAT, CORN, RYE, BARLEY, RICE,  
CHICK-PEA, DRY-BEAN, LENTIL, DRY-PEA,  
POTATO, EARLY-POT, ONION,  
FRE-TOMATO, CON-TOMATO, AUBERGINE, MELON, CAULIFLOWR,  
WAT-MELON, CARROT, CABBAGE, CUCUMBER, OKRA, PEPPER,  
LETTUCE, SPINACH, SQUASH, LEEK,  
GROUNDNUT, SESAME, SUNFLOWER, SOYABEAN,  
LINSEED, COLZA, COTTON, TOBACCO, SUGARBEET,  
PISTACHIO, HAZELNUT, TAB-OLIVE, OIL-OLIVE, TEA,  
TAB-GRAPE, WINE-GRAPE, SULTANA, FRE-FIGS, DRY-FIGS,  
ORANGE, LEMON,  
APPLE, PEARS, FRE-PEACH, PRO-PEACH, APRICOT, CHERRY,  
WILDCHERRY, POMEGRAN/

OFRX(OCR) ALL FRUIT OUTS  
/ HAZELNUT, TAB-OLIVE, OIL-OLIVE, TEA,  
TAB-GRAPE, WINE-GRAPE, SULTANA, FRE-FIGS, DRY-FIGS,  
ORANGE, LEMON, APPLE, PEARS, FRE-PEACH, PRO-PEACH, APRICOT,  
CHERRY, WILDCHERRY/

\* LIVESTOCK PRODUCTS

O2 OUTPUT ANIMALS  
/ SHEEP-MEAT, SHEEP-MILK, SHEEP-WOOL, SHEEP-HIDE,  
GOAT-MEAT, GOAT-MILK, GOAT-WOOL, GOAT-HIDE,  
ANGOR-MEAT, ANGOR-MILK, ANGOR-WOOL, ANGOR-HIDE,  
COW-MEAT, COW-MILK, COW-HIDE,  
BUFAL-MEAT, BUFAL-MILK, BUFAL-HIDE,  
POLTR-MEAT, EGGS /

- \* THE FOLLOWING SET DEFINITIONS (FROM G1 TO TE) ARE ALL FOR THE
- \* LIVESTOCK PRODUCTION. G'S DENOTE THE INPUTS IN RAW FORM.
- \* T'S DENOTE THE INPUTS IN DIGESTABLE ENERGY.

G1 FEED -- STRAW AND HAY  
/ F-COMWHEAT, F-DURWHEAT, F-CORN, F-RYE, F-BARLEY,  
F-PULSES, F-VETCHG /

G2(OCR) FEED -- CONCENTRATES  
/ COMWHEAT, DURWHEAT, RYE, BARLEY, SUGARBEET/

G3(OCR) FEED -- GRAINS  
/ COMWHEAT, DURWHEAT, CORN, RYE, BARLEY,  
VETCH-GRA, SORGHUM /

G4(OCR) FEED OILCAKE  
/ SUNFLOWER, COTTON, SOYABEAN, LINSEED, COLZA/

G5(OCR) FEED -- HIGH QUALITY HAY AND SILAGE  
/ VETCH-FOD, ALFALFA, CORN-SIL, SORGH-SIL/

TF TOTAL FEED SUPPLY IN ENERGY VALUES  
/ TSTRAW, TCONCEN, TGRAIN, TFODD, TOIL, TPAST/

TS SUBGROUPS OF ENERGY REQUIREMENTS FROM LIVESTOCK SECTOR  
/ TGRCONOIL, TGOIL, PASTFEED /

TE TOTAL ENERGY  
/ TENE/

\* CROP PRODUCTION ACTIVITIES FOR ROT.

Appendix D: COMPUTER PROGRAM FOR TURGAP

- \* 1ST. LETTER: S=SINGLE, F=FALLOW, T=TREE,
- \* 2-6ST LETTER: CROP NAME
- \* 7TH. LETTER: D=DRY, I=IRRIGATED
- \* 8TH. LETTER: P=POOR, G=GOOD, V=VERY GOOD, L=LOW, H=HIGH
- \* WITHOUT ANY OONE OF THE ABOVE=EITHER.

I SINGLE CROP ACTIVITIES

/ SCOMWHDG, FCOMWHDG, SCOMWHDV, SCOMWHIL, SDURWHDG, FDURWHDG,  
SDURWHIL, SDURWHDV, SCORN-DV, FCORN-DG, SCORN-IL, SRYE--DG,  
FRYE--D, SRICE-IL, SRICE-IH, SBARLYDG, FBARLYDP,  
SCKPEADP, SCKPEAIL, SDBEANIL, SLENTLDP, SLENTLDG, SDPEASDP,  
SDPEASIL, SLINSEDG, SEPOTAIL, SEPOTAIH,  
SPOTATIL, SPOTATIH, SONIONDV, SONIONIL, SMELONIH,  
STOMATIL, STOMATIH, SAUBERIH, SMELONDP, SMELONIL, SMELONDV,  
SWMELOIL, SWMELOIH, SWMELODV, SWMELODP,  
SCARROIL, SCABBAIL, SLEEKIL, SOKRAIL, SSQUASIL,  
SLETTUIL, SSPINAIL, SCUCUMIL, SPEPPEIL, SCAUFLIP,  
SSUNFLDP, SSUNFLIL, SSUNFLDG, SSUNFLDV, SSBEANI,  
SGRUDNIH, SSESAMDG, SCOLZAIP,  
SCOTTNIH, STOBACDG, STOBACDV, SSBEETIL,  
SALFALI, SVETFODP, SVETGRDP, PASTUSE, SCRSILI, SSORGI, SSOSILI,  
PISTA-D, HAZEL-D, TOLIV-D, OOLIV-D, TEA---D,  
TGRAPDV, TGRAPIH, TGRAPIL, WGRAPDG, SULTA-I,  
FFIGS-I, DFIGS-I, ORANG-I, LEMON-I,  
SAPPLEIL, PEARS-I, FPEAC-I, PPEAC-I, SAPRICIL, SAPRICIH,  
SCHERRIL, SWCHERIL, SCHERRIH, POMEGR-I /

- \* CROP ACTIVITIES CLASSIFIED ACCORDING TO CROP GROUPS
- \* FOR WATER CHARGE AND REPORTS.

ALCER(I) ALL CEREALS

/ SCOMWHDG, FCOMWHDG, SCOMWHDV, SCOMWHIL, SDURWHDG, FDURWHDG,  
SDURWHIL, SDURWHDV, SCORN-DV, FCORN-DG, SCORN-IL, SRYE--DG,  
FRYE--D, SRICE-IL, SRICE-IH, SBARLYDG, FBARLYDP /

IRCERX(I) IRRIGATED CER EXCEPT RICE

/ SCOMWHIL, SDURWHIL, SCORN-IL, SRICE-IL, SRICE-IH /

IRRIC(I) IRRIGATED RICE

/ SRICE-IL, SRICE-IH /

ALPUL(I) ALL PULSES

/ SCKPEADP, SCKPEAIL, SDBEANIL, SLENTLDP, SLENTLDG, SDPEASDP,  
SDPEASIL /

IRPUL(I) IRRIGATED PULSES

/ SCKPEAIL, SDBEANIL, SDPEASIL /

ALTUB(I) ALL TUBERS

/ SEPOTAIL, SEPOTAIH, SPOTATIL, SPOTATIH, SONIONDV, SONIONIL /

IRTUB(I) IRRIGATED TUBERS

/ SEPOTAIL, SEPOTAIH, SPOTATIL, SPOTATIH, SONIONIL /

ALVEG(I) ALL VEGETABLES

/ SMELONIH, STOMATIL, STOMATIH, SAUBERIH, SMELONDP, SMELONIL,  
SMELONDV,  
SWMELOIL, SWMELOIH, SWMELODV, SWMELODP,  
SCARROIL, SCABBAIL, SLEEKIL, SOKRAIL, SSQUASIL,  
SLETTUIL, SSPINAIL, SCUCUMIL, SPEPPEIL, SCAUFLIP /

IRVEGX(I) IRRIGATED VEG EXCEPT MELONS

/ STOMATIL, STOMATIH, SAUBERIH,  
SCARROIL, SCABBAIL, SLEEKIL, SOKRAIL, SSQUASIL,  
SLETTUIL, SSPINAIL, SCUCUMIL, SPEPPEIL, SCAUFLIP /

IRMEL(I) IRRIGATED MELONS

/ SMELONIH, SMELONIL, SWMELOIL, SWMELOIH /

ALOIL(I) ALL OIL CROPS

/ SSUNFLDP, SSUNFLIL, SSUNFLDG, SSUNFLDV, SSBEANI,

Appendix D: COMPUTER PROGRAM FOR TURGAP

SGRUDNIH, SSESAMDG, SCOLZAIP, SLINSEDG /

IROIL(I) IRRIGATED OIL CROPS  
/ SSUNFLIL, SSBEANI, SGRUDNIH, SCOLZAIP /

ALIND(I) ALL INDUSTRIAL CROPS  
/ SCOTTNIH, STOBACDG, STOBACDV, SSBEETIL /

IRIND(I) IRRIGATED INDUSTRIAL CROPS  
/ SCOTTNIH, SSBEETIL /

ALFED ALL FEED CROPS  
/ SALFALI, SVETFODP, SVETGRDP, SCRSILI, SSORGI, SSOSILI /

IRFED(I) IRRIGATED FEEDS  
/ SALFALI, SCRSILI, SSORGI, SSOSILI /

ALFRN(I) ALL FRUITS AND NUTS  
/ PISTA-D, HAZEL-D, TOLIV-D, OOLIV-D, TEA---D,  
TGRAPDV, TGRAPIH, TGRAPIL, WGRAPDG, SULTA-I,  
FFIGS-I, DFIGS-I, ORANG-I, LEMON-I,  
SAPPLEIL, PEARS-I, FPEAC-I, PPEAC-I, SAPRICIL, SAPRICIH,  
SCHERRIL, SWCHERIL, SCHERRIH, POMEGR-I /

IRFRNX(I) IRRIGATED FRUITS AND NUTS  
/ SAPPLEIL, PEARS-I, FPEAC-I, PPEAC-I, SAPRICIL,  
SAPRICIH, SCHERRIL, SWCHERIL, SCHERRIH, POMEGR-I /

IRFIG(I) IRRIGATED FIGS  
/ FFIGS-I, DFIGS-I /

IRCIT(I) IRRIGATED CITRUS  
/ ORANG-I, LEMON-I /

IRGRA(I) IRRIGATED GRAPES  
/ TGRAPIH, TGRAPIL, SULTA-I /

\* LIVESTOCK PRODUCTION ACTIVITES  
J LIVESTOCK PRODUCTION ACTIVITIES  
/ SHEEP, GOAT, ANGORA, CATTLE, BUFFALO, POULTRY /

JC LIVESTOCK ACIVITY AND COMMODITY CORRESPONDENCE  
/ SHEEP-MEAT, GOAT-MEAT, ANGOR-MEAT, COW-MEAT, BUFAL-MEAT,  
POLTR-MEAT/

\* AREA FOR ROT

B AREA  
/ A-COMWHE, A-DURWHE, A-CORN--, A-RYE---, A-BARLEY,  
A-RICE--, A-CHKPEA, A-DRBEAN, A-LENTIL, A-DRYPEA,  
A-POTATO, A-EARPOT, A-ONION-, A-FTOMAT, A-CTOMAT,  
A-CARROT, A-CABBAG, A-LEEK , A-OKRA , A-SQUASH,  
A-LETTUC, A-SPINAC, A-PEPPER, A-CUCUMB, A-WMELON,  
A-AUBERG, A-MELON-, A-CAULIF, A-SUNFLR, A-SBEAN-,  
A-GRUNDN, A-SESAME, A-LINSEE, A-COLZA-, A-COTTON,  
A-TOBACO, A-SRBEET, A-PISTAC, A-HAZELN, A-TOLIVE,  
A-OOLIVE, A-TEA---, A-TGRAPE, A-WGRAPE, A-SULTAN,  
A-FFIGS-, A-DFIGS-, A-ORANGE, A-LEMON-, A-APPLE-,  
A-PEARS-, A-FPEACH, A-PPEACH, A-APRICO, A-CHERRY,  
A-WDCHER, A-POMEGR, A-ALFALF, A-VETCHF, A-VETCHG,  
A-CORSIL, A-SORGHU, A-SORSIL /

BC CEREAL AREA  
/ A-COMWHE, A-DURWHE, A-CORN--, A-RYE---, A-RICE--, A-BARLEY/

BF FALLOW AREA  
/ FALLOW /

B1 FODDER  
/ ALFALFA, VETCH-FOD, CORN-SIL, SORGH-SIL /

B2 FODDER AREA

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/ A-ALFALF,A-VETCHF /
* EXOGENOUSLY PRICED COST ITEMS

E PRODUCTION COST STRUCTURE
/ SEED, FERTILIZER, CAPITAL,
  CWCCERX, CWCRIC, CWCPUL, CWCTUB, CWCVEGX, CWCMEI, CWCOIL,
  CWCIND, CWCFFED, CWCFRNX, CWCFIG, CWCCIT, CWCGRA, CWCOLI /

* SET DEFINITIONS FOR FURTHER OPERATIONS

SET O ALL OUTPUTS ;
    O(O1) = YES; O(O2) = YES;

SET LM LABOR AND TRACTOR;
    LM(L) = YES; LM(M) = YES;

SET TC FEED REQUIREMENT COEFFICIENTS;
    TC(TF) = YES; TC(TS) = YES;

SET G ALL FEED COMPONENTS(INC. TOTAL ENERGY AND SUBGROUPS);
    G(G1) = YES; G(G2) = YES;
    G(G3) = YES; G(G4) = YES;
    G(G5) = YES; G(TC) = YES;
    G(TE) = YES;

SET IR SINGLE AND ROTATION CROPS;
    IR(I) = YES;

SET OAL ALL OUTPUTS (MARKET AND INTERNAL PRODUCTION);
    OAL(OCR) = YES; OAL(O2) = YES;

* GAP SPECIFIC SET DEFINITIONS
SETS
* ALL RAINFALL AND PROJECT REGIONS FOR GAP

ALR ALL RAIN AND PROJ REGS GAP
/ NHR, NMR, SMR, SLR, N01, N2A, N2B, N03, N4A, N4B, N4C,
  S05, S06, S07, S08, S09, S10, S11, NOP /

RF(ALR) RAINFALL REGIONS
/ NHR, NMR, SMR, SLR /

PJ(ALR) IRRIGATION PROJECT REGIONS
/ N01, N2A, N2B, N03, N4A, N4B, N4C,
  S05, S06, S07, S08, S09, S10, S11, NOP /

* REGION DEFINITIONS FOR GAP

* NRF(ALR) RAINFALL REGS NORTH
* /NHR, NMR /
* SRF(ALR) RAINFALL REGS SOUTH
* /SMR, SLR /

NPJ(ALR) PROJECTS REGIONS NORTH
/ N01, N2A, N2B, N03, N4A, N4B, N4C /
SPJ(ALR) PROJECT REGIONS SOUTH
/ S05, S06, S07, S08, S09, S10, S11, NOP /
RFX(RF) RAINFALL REGS XC SLR
/ NHR, NMR, SMR /
RFSL(RF) RAINFALL REG SOUTH
/ SLR /

* LAND CLASSES: 3 FOR IRRIGATED, 4 FOR DRY CULTIVATION

LC LAND CLASSES
/ LC1 * LC4 /
LCI(LC)
/ LC1, LC2, LC3 /
LCT1(LC)
/ LC1 /
LC23(LC)

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/ LC2, LC3 /  
 LCT4(LC)  
 / LC4 /  
 LC24(LC)  
 / LC2, LC3, LC4 /

\* VARIOUS SOURCES OF PRODUCTION COEFFICIENTS

T TECHNOLOGIES  
 / C11 /

\* MONTHLY LAND, LABOR, AND TRACTOR POWER INPUTS FOR GAP

YTG ALL MONTHS AND YEARLY LAND  
 /TG01\*TG12, TYR /

TG(YTG) LAND DIVIDED INTO MONTHS  
 / TG01\*TG12 /

LG LABOR DIVIDED INTO MONTHS  
 / LG01\*LG12 /

MG MACHINE DIVIDED INTO MONTHS  
 /MG01\*MG12 /

\* WATER INPUT FOR GAP: MONTHLY FOR FEB, MAR, APR, MAY, SEPT, OCT, NOV;  
 \* IN 10-DAY PER. FOR JUNE, JULY, AUGUST.

W WATER DIVIDED INTO MONTHS FOR JUNE JULY AUGUST 10 DAY PR  
 / WG02, WG03, WG04, WG05, WG6A, WG6B, WG6C, WG7A, WG7B,  
 WG7C, WG8A, WG8B, WG8C, WG09, WG10, WG11 /

WPK(W) WATER PEAK MONTHS  
 / WG6A, WG6B, WG6C, WG7A, WG7B, WG7C, WG8A, WG8B, WG8C /

WNP(W) WATER NON PEAK MONTHS  
 / WG02, WG03, WG04, WG05, WG09, WG10, WG11 /

\* IDENTIFIERS USED IN THE CALCULATION OF NET WATER AVAILABILITY

WAID WATER AVAILABILITY IDENTIFIERS  
 / WAP, WANP, WAT, EP, ALEP /

IG CROP ACTIVITIES FOR THE GAP REGION

/ CW1I, CW2I, CW3I, CWHD, DW1I, DW2I, DW3I, DWHD,  
 BR1I, BR2I, BRLD, CG1I, CG2I, CG3I, RYED, RICI,  
 CH1I, CH2I, CH3I, CHCD, LNTI, LNTD, DBNI,  
 SN1I, SN2I, SN3I, SNFD, SB1I, SB2I, SB3I  
 GN1I, GN2I, SESD,  
 CT1I, CT2I, CT3I, SBTI, TOBD,  
 PTEI, PTLI, ON1I, ON2I, ON3I, ONSI,  
 CTOI, FTOI, MELI, MELD, WMLI, WMLD, CASI, CAWI,  
 CB1I, CB2I, CB3I, EG1I, EG2I, CLFI, CC1I, CC2I,  
 OKRI, PP1I, PP2I, LT1I, LT2I, LT3I, SPSI, SPII,  
 SP2I, SP3I, SQAI, LEKI,  
 ALFI, VCGD, VCFD, CS1I, CS2I, CS3I, SG1I, SG2I,  
 SG3I, SS1I, SS2I, SS3I,  
 APPI, APRI, CRRI, FGDI, FGFI, GRSI, GRTD, GRTI,  
 GRWD, OLOD, OLTD, PARI, PCFI, PCPI, PISD,  
 POMI, WCRI /

IGI(IG) IRRIGATED ACTIVITIES GAP

/ CW1I, CW2I, CW3I, DW1I, DW2I, DW3I,  
 BR1I, BR2I, CG1I, CG2I, CG3I, RICI,  
 CH1I, CH2I, CH3I, LNTI, DBNI,  
 SN1I, SN2I, SN3I, SB1I, SB2I, SB3I, GN1I, GN2I,  
 CT1I, CT2I, CT3I, SBTI,  
 PTEI, PTLI, ON1I, ON2I, ON3I, ONSI,  
 CTOI, FTOI, MELI, WMLI, CASI, CAWI, CB1I, CB2I, CB3I,  
 EG1I, EG2I, CLFI, CC1I, CC2I, OKRI, PP1I, PP2I,



Appendix D: COMPUTER PROGRAM FOR TURGAP

LT1I, LT2I, LT3I, SPSI, SP1I, SP2I, SP3I, SQAI, LEKI,  
ALFI, CS1I, CS2I, CS3I, SGI1, SG2I, SG3I, SS1I, SS2I, SS3I,  
APPI, APRI, CRRI, FGDI, PGFI, GRSI, GRTI, PARI,  
PCFI, PCPI, POMI, WCRI /

IGD(IG) ALL DRY ACTIVITIES GAP  
/ CWHI, DWHD, BRLD, RYED, CHCD, LNTD, SNFD, SESD, TOBD,  
MELD, WMLD, VCGD, VCFD, GRTD, GRWD, OLOD, OLTD, PISD /  
IGDX(IG) DRY ACTIVITIES EXCEPT PULSES GAP  
/ CWHI, DWHD, BRLD, RYED, SNFD, SESD, TOBD,  
MELD, WMLD, VCGD, VCFD, GRTD, GRWD, OLOD, OLTD, PISD /

IGDP(IG) DRY ACTIVITIES FOR PULSES GAP  
/ CHCD, LNTD /

AGCER(IG) ALL CEREALS GAP  
/ CW1I, CW2I, CW3I, CWHI, DW1I, DW2I, DW3I, DWHD,  
BR1I, BR2I, BRLD, CG1I, CG2I, CG3I, RYED, RICI /

IGCERX(IG) IRRIGATED CEREALS GAP  
/ CW1I, CW2I, CW3I, DW1I, DW2I, DW3I,  
BR1I, BR2I, CG1I, CG2I, CG3I /

IGWB(IG) IRRIGATED WHEAT AND BARLEY  
/ CW1I, CW2I, CW3I, DW1I, DW2I, DW3I,  
BR1I, BR2I /

DGCER(IG) DRY CEREALS  
/ CWHI, DWHD, BRLD, RYED /  
DGVAR(IG) DRY VARIOUS CROPS  
/ CHCD, LNTD, SNFD, SESD, MELD, WMLD, VCGD, VCFD /

IGRIC(IG) IRRIGATED RICE GAP  
/ RICI /

AGPUL(IG) ALL PULSES GAP  
/ CH1I, CH2I, CH3I, CHCD, LNTI, LNTD, DBNI /

IGPUL(IG) IRRIGATED PULSES GAP  
/ CH1I, CH2I, CH3I, LNTI, DBNI /

DGPUL(IG) DRY PULSES  
/ CHCD, LNTD /

AGTUB(IG) ALL TUBERS GAP  
/ PTEI, PTLI, ON1I, ON2I, ON3I, ONSI /

IGTUB(IG) IRRI TUBERS GAP  
/ PTEI, PTLI, ON1I, ON2I, ON3I, ONSI /

IGPOT(IG) IRRIG POTATO

/ PTEI, PTLI /

IGONI(IG) IRRIG ONION

/ ON1I, ON2I, ON3I, ONSI /

AGVEG(IG) ALL VEGETABLES GAP  
/ CTOI, FTOI, MELI, MELD, WMLI, WMLD, CASI, CAWI,  
CB1I, CB2I, CB3I, EGI1, EG2I, CLFI, CC1I, CC2I,  
OKRI, PP1I, PP2I, LT1I, LT2I, LT3I, SPSI, SP1I,  
SP2I, SP3I, SQAI, LEKI /

IGVEGX(IG) IRRIG VEGS EXCEPT MELONS GAP  
/ CTOI, FTOI, CASI, CAWI, CB1I, CB2I, CB3I, EGI1, EG2I,  
CLFI, CC1I, CC2I, OKRI, PP1I, PP2I, LT1I, LT2I,  
LT3I, SPSI, SP1I, SP2I, SP3I, SQAI, LEKI /

IGVT(IG) IRRI VEGS AND TUBERS  
/ PTEI, PTLI, ON1I, ON2I, ON3I, ONSI,  
CTOI, FTOI, CASI, CAWI, CB1I, CB2I, CB3I, EGI1, EG2I,

Appendix D: COMPUTER PROGRAM FOR TURGAP

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CLFI, CC1I, CC2I, OKRI, PP1I, PP2I, LT1I, LT2I,
LT3I, SPSI, SP1I, SP2I, SP3I, SQAI, LEKI /

IGMEL(IG) IRRIG MELONS GAP
/ MELI, WMLI /

AGOIL(IG) ALL OIL CROPS GAP
/ SN1I, SN2I, SN3I, SNFD, SB1I, SB2I, SB3I, GN1I, GN2I, SESD /

IGOIL(IG) IRRIG OIL CROPS GAP
/ SN1I, SN2I, SN3I, SB1I, SB2I, SB3I, GN1I, GN2I /

IGSUN(IG) IRRI SUNFLOWER
/ SN1I, SN2I, SN3I/

IGSOY(IG) IRRIG SOYBEAN
/ SB1I, SB2I, SB3I /
IGGRO(IG) IRRIG GROUNDNUT
/ GN1I, GN2I /
AGIND(IG) ALL INDUSTRIAL CROPS GAP
/ CT1I, CT2I, CT3I, SBTI, TOBD /
IGIND(IG) IRRIG INDUSTRIAL CROPS GAP
/ CT1I, CT2I, CT3I, SBTI /
IGCOT(IG) IRRIG COTTON
/ CT1I, CT2I, CT3I /
IGSUG(IG) IRRIG SUGARBEET
/ SBTI /

AGFED(IG) ALL FEED CROPS GAP
/ ALFI, VCGD, VCFD, CS1I, CS2I, CS3I, SG1I, SG2I,
SG3I, SS1I, SS2I, SS3I /
IGFED(IG) IRRIG FEED CROPS GAP
/ ALFI, CS1I, CS2I, CS3I, SG1I, SG2I, SG3I, SS1I, SS2I, SS3I /

AGFRN(IG) ALL FRUITS AND NUTS GAP
/ APPI, APRI, CRRI, FGDI, FGFI, GRSI, GRTD, GRTI, GRWD, OLOD,
OLTD, PARI, PCFI, PCPI, PISD, POMI, WCRI /
IGFRN(IG) IRRIGATED FRUITS ALL
/ APPI, APRI, CRRI, PARI, PCFI, PCPI, POMI, WCRI
FGDI, FGFI, GRSI, GRTI /

IGFRNX(IG) IRRI FRUITS EXC FIG AND GRP GAP
/ APPI, APRI, CRRI, PARI, PCFI, PCPI, POMI, WCRI /

IGFIG(IG) IRRIGATED FIG GAP
/ FGDI, FGFI /

IGGRA(IG) IRRIGATED GRAPES GAP
/ GRSI, GRTI /

DGFRN(IG) DRY FRUITS AND NUTS GAP
/ GRTD, GRWD, OLOD, OLTD, PISD /

```

SET LMG LABOR AND TRACTOR; LMG(LG)=YES; LMG(MG)=YES;

\*\*\*\*

TABLE PAR CONSUMPTION PARAM PQP TERMS AND TRANS COSTS

	ELAST-P	ELAST-I	PQP1	CTRAN
COMWHEAT	-0.3	0	0.00098	43
DURWHEAT	-0.4	0	0.00640	43
CORN	-0.3	0	0.01709	43
RYE	-0.2	0	0.00189	43
BARLEY	-0.3	0	0.00326	43
RICE	-0.2	0.4	1.58382	43
CHICK-PEA	-0.3	0.6	0.08139	55

Appendix D: COMPUTER PROGRAM FOR TURGAP

DRY-BEAN	-0.3	0.6	1.28283	55
LENTIL	-0.3	0.6	0.04017	55
DRY-PEA	-0.2	0.6	20.29605	55
POTATO	-0.2	0.3	0.05612	55
EARLY-POT	-0.4	0.6	0.02018	55
ONION	-0.2	0.6	0.05900	55
FRE-TOMATO	-0.2	0.6	0.03987	82
CON-TOMATO	-0.2	0.6	0.13427	82
AUBERGINE	-0.3	0.6	0.26040	82
MELON	-0.2	0.6	0.05472	82
CAULIFLOWR	-0.3	0.6	3.31103	82
WAT-MELON	-0.2	0.6	0.02416	82
CARROT	-0.3	0.6	1.08405	82
CABBAGE	-0.3	0.6	0.22449	82
CUCUMBER	-0.3	0.6	0.26331	82
OKRA	-0.3	0.6	18.74761	82
PEPPER	-0.3	0.6	0.34125	82
LETTUCE	-0.3	0.6	0.92849	82
SPINACH	-0.3	0.6	1.19806	82
SQUASH	-0.3	0.6	1.29527	82
LEEK	-0.3	0.6	0.46256	82
GROUNDNUT	-0.3	0.6	1.15312	55
SESAME	-0.3	0.6	8.24624	55
SUNFLOWER	-0.3	0.6	0.06434	55
SOYABEAN	-0.3	0.6	0.01407	55
LINSEED	-0.3	0.6	1.82714	55
COLZA	-0.3	0.6	3.60511	55
COTTON	-0.3	0.5	0.00394	55
TOBACCO	-0.3	0.5	1.40678	55
SUGARBET	-0.3	0.6	0.00043	55
PISTACHIO	-0.4	0.5	49.53999	55
HAZELNUT	-0.4	0.5	2.10323	55
TAB-OLIVE	-0.3	0.6	5.76276	82
OIL-OLIVE	-0.4	0.6	1.01746	82
TEA	-0.5	0.5	1.11958	82
TAB-GRAPE	-0.1	0.1	0.03547	82
WINE-GRAPE	-0.3	0.5	0.08883	82
SULTANA	-0.3	0.5	0.06935	82
FRE-FIGS	-0.4	0.6	4.14093	82
DRY-FIGS	-0.4	0.6	1.08295	82
ORANGE	-0.2	0.8	0.29722	82
LEMON	-0.2	0.8	0.77337	82
APPLE	-0.2	0.8	0.09846	82
PEARS	-0.2	0.8	0.54185	82
FRE-PEACH	-0.2	0.8	0.46122	82
PRO-PEACH	-0.4	0.8	5.78313	82
APRICOT	-0.2	0.8	1.00372	82
CHERRY	-0.2	0.8	1.85620	82
WILDCHERRY	-0.2	0.8	1.79965	82
POMEGRAN	-0.3	0.5	1.39943	82
ALFALFA			0.00000	43
VETCH-FOD			0.02497	43
VETCH-GRA			0.00000	43
CORN-SIL			0.05601	43
SORGHUM			0.00000	43
SORGH-SIL			0.00000	43
SHEEP-MEAT	-0.5	1.2		
SHEEP-MILK	-0.3	1.0		
SHEEP-WOOL	-0.2	1.1		
SHEEP-HIDE	-0.4	1.2		
GOAT-MEAT	-0.5	1.2		
GOAT-MILK	-0.3	1.0		
GOAT-WOOL	-0.2	1.2		
GOAT-HIDE	-0.4	1.2		
ANGOR-MEAT	-0.5	1.2		
ANGOR-MILK	-0.3	1.0		
ANGOR-WOOL	-0.2	1.2		
ANGOR-HIDE	-0.4	1.2		

COW-MEAT	-0.4	0.5
COW-MILK	-0.5	1.8
COW-HIDE	-0.4	1.2
BUFAL-MEAT	-0.5	0.5
BUFAL-MILK	-0.5	1.8
BUFAL-HIDE	-0.4	1.2
POLTR-MEAT	-0.6	0.9
EGGS	-0.6	0.9

;

TABLE RES RESOURCE DATA

\*GG GAP RESOURCE AVAILABILITY

TABLE DLNGAP(RF,LC)	DRY LAND GAP
\$INCLUDE 'DRYLN.PRN'	

;

TABLE ILNGAP(PJ,LC)	IRRI LAND GAP
\$INCLUDE 'IRRLN.PRN'	

;

\* LABOR AND TRACTOR AVAILABILITY

\* WATER AVAILABILITY IN NORTH AND SOUTH IN MMS

TABLE WGAP(PJ,WALD)	WATER AVAILABILITY GAP
\$INCLUDE 'WATGAP.PRN'	

;

PARAMETER WATCHA WATER CHARGES

/ WCCERX	25440
WCRIC	128280
WCPUL	38400
WCTUB	45000
WCVEGX	71760
WC MEL	36440
WCOIL	28480
WCIND	53400
WCFED	30520
WCFRNX	75880
WCFIG	39120
WCCIT	102240
WCGRA	34760
* WCOLI	27680
WPINDE	1.1

/;

PARAMETER MACRO GLOBAL PARAMETERS AND COEFFICIENTS

/EXRATE	1500.
FCOEF	0.5
PQPCER	-0.00145
PQPFAL	0.00576
MMHA	10E+2
EXRINX2010	1
POPGROW	0.0190
INCGROW	0.0300
YLDGROW	1.3000

/;

TABLE IOC BASIC PRODUCTION COEFFICIENTS

PARAMETERS	CONCENT	CONCENTRATE COEFFICIENTS PER OUTPUT UNIT
/ COMWHEAT	0.15	
DURWHEAT	0.15	
RYE	0.1	
BARLEY	0.15	
SUGARBEET	0.10	/,
CONOIL	OILCAKE	BY-PRODUCT COEFFICIENT
/ SUNFLOWER	0.26	

Appendix D: COMPUTER PROGRAM FOR TURGAP

LINSEED 0.41  
 COLZA 0.25  
 COTTON 0.40  
 SOYABEAN 0.20/,

ENEC ENERGY EQUIVALENT BY-PRODUCTS PER BY PRODUCT UNIT

/ COMWHEAT 0.50  
 DURWHEAT 0.50  
 RYE 0.24  
 BARLEY 0.60  
 SUGARBEET 0.60  
 SUNFLOWER 0.53  
 LINSEED 0.5  
 COLZA 0.5  
 COTTON 0.56  
 SOYABEAN 0.68  
 F-COMWHEAT 0.13  
 F-DURWHEAT 0.13  
 F-CORN 0.15  
 F-RYE 0.17  
 F-BARLEY 0.23  
 F-PULSES 0.19  
 F-VETCHG 0.15  
 ALFALFA 0.30  
 VETCH-FOD 0.40  
 CORN-SIL 0.60  
 SORG-SIL 0.60 /,

LABFED LABOR FOR HARVESTING AND FEEDING STRAW

/ LABOR-1Q 8.  
 LABOR-2Q 3.  
 LABOR-3Q 25.  
 LABOR-4Q 5.  
 TRACTOR-3Q 1./,

FEEDREQ FEED REQUIREMENTS (ENERY PER YIELD UNIT)

/SHEEP-MEAT 1.5  
 SHEEP-MILK 0.4  
 GOAT-MEAT 1.6  
 GOAT-MILK 0.4  
 ANGOR-MEAT 2.0  
 ANGOR-MILK 0.5  
 COW-MEAT 1.8  
 COW-MILK 0.4  
 BUFAL-MEAT 2.0  
 BUFAL-MILK 0.5  
 POLTR-MEAT 2.5  
 EGGS 3.5/;

TABLE FEEDABS ABSOLUTE FEED REQUIREMENTS AND TECHNICAL PROGRESS

	NEED	PROGRESS
SHEEP	95.	1.
GOAT	94.	1.
ANGORA	100.	1.
CATTLE	290.	1.
BUFFALO	340.	1.
POULTRY	10.	1.

TABLE FEEDGRAIN DATA AND COEFFICIENTS FOR FEEDING GRAIN

	ENEGR	MINGR	USEGR
COMWHEAT	0.72	0.30	2199.011
DURWHEAT	0.72	0.03	219.901
CORN	0.78	0.11	744.281
RYE	0.65	0.03	243.583
BARLEY	0.71	0.51	3790.971
VETCH-GRA	0.65	0.01	
SORGHUM	0.78	0.01	

PARAMETER YGP ROT AND GAP YIELD GROWTH TO 2010

/ RLMDG 1.05, GLMDG 1.05

```

RLMDC 1.05,   GLMDC 1.05
RLMDF 1.05,   GLMDF 1.05
RFRTG 1.20,   GFRTG 1.20
RFRTC 1.20,   GFRTC 1.20
RFRTF 1.10,   GFRTF 1.10
RYIEG 1.40,   GYIEG 1.40
RYIEC 1.40,   GYIEC 1.40
RYIEF 1.20,   GYIEF 1.20 /;

```

```

*GG-----*
* GAP REGION INPUT OUTPUT COEFFICIENTS
TABLE IOLN(IG,T,LC,ALR,YTG) MONTHLY LAND COEFFS FOR IRRI AND DRY
$INCLUDE 'INLND.PRN'
;
TABLE IOLB(IG,T,LC,ALR,LG) MONTHLY LABOR COEFFICIENTS
$INCLUDE 'INLAB.PRN'
;
TABLE IOMH(IG,T,LC,ALR,MG) MONTHLY MACHINE COEFFICIENTS
$INCLUDE 'INMAC.PRN'
;
TABLE IOWT(IG,T,LC,PJ,W) MONTHLY WATER COEF FOR PEAK DEMAND 10 DAY PER
$INCLUDE 'INWAT.PRN'
;
TABLE IOFC(IG,T,LC,ALR,F) FERTILIZER AND CHEMICAL COEFFS
$INCLUDE 'INFRT.PRN'
;
PARAMETER IOSD(IG,T,LC,ALR,D) SEED COEFFICIENTS
$INCLUDE 'INSEED.PRN'
;
PARAMETER IOYI(IG,T,LC,ALR,OCR) YIELD COEFFICIENTS
$INCLUDE 'MYIELD.PRN'
;
PARAMETER IOBY(IG,T,LC,ALR,G1) BY-PRODUCT COEFFICIENTS
$INCLUDE 'BYIELD.PRN'
;

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*-----*
*          CALCULATION OF MODEL PARAMETERS AND COEFFICIENTS          *
*-----*
* QUADRATIC COST TERM CALCULATIONS FOR LABOUR AND TRACTORS
* ASSUMED SHIFT FACTORS:
* AVAILABLE STOCK, AVERAGE COSTS, RELATIVE UNEMPLOYMENT.
PARAMETERS   PQPLT   QUADRATIC LABOUR AND TRACTOR COSTS
              RUNEMP  RELATIVE EMPLOYMENT OF LABOUR AND TRACTORS
              / LABOR    0.80
              TRACTOR   0.18/;

PQPLT(L)= ((RES(L,"PRICE")*RES(L,"PINDEX2010")) / (MACRO("EXRATE")
*MACRO("EXRINX2010"))) / (RUNEMP("LABOR") * RES(L,"QUANT")
*RES(L,"QINDEX2010"));
PQPLT(M)= (RES(M,"PRICE")*RES(M,"PINDEX2010")) / (RUNEMP("TRACTOR")
* (RES(M,"QUANT")*RES(M,"QINDEX2010")));

PARAMETERS   PQPLG   QUADRATIC LABOUR COSTS FOR GAP
              PQPTG  QUADRATIC MACHINE COSTS FOR GAP
              RUNEMPG RELATIVE EMPLOYMENT OF LABOUR AND TRACTORS
              / LABOR    0.80
              TRACTOR   0.18/;
              PQPLG   = ((RES("LABORG","PRICE")*RES("LABORG","PINDEX2010"))
/(MACRO("EXRATE")
*MACRO("EXRINX2010"))) / (RUNEMPG("LABOR") *
RES("LABORG","QUANT")*RES("LABORG","QINDEX2010"));
PQPTG = (RES("TRACTORG","PRICE")*RES("TRACTORG","PINDEX2010")) /
(RUNEMPG("TRACTOR") * RES("TRACTORG","QUANT")*
RES("TRACTORG","QINDEX2010"));

PARAMETER   P      CROP PRODUCTION COEFFICIENTS ;
P(S,IR) = IOC(S,IR) ;
P(B,IR) = IOC(B,IR) ;

```

Appendix D: COMPUTER PROGRAM FOR TURGAP

```

P("FALLOW", IR) = IOC("FALLOW", IR);
P(L, IR) = IOC(L, IR)*YGP("RLMDG") ;
P(L, ALCER) = IOC(L, ALCER)*YGP("RLMDC") ;
P(L, ALFRN) = IOC(L, ALFRN)*YGP("RLMDF") ;

P(M, IR) = IOC(M, IR)*YGP("RLMDG") ;
P(M, ALCER) = IOC(M, ALCER)*YGP("RLMDC") ;
P(M, ALFRN) = IOC(M, ALFRN)*YGP("RLMDF") ;
P(F, IR) = IOC(F, IR) * RES(F, "REINDEX")*YGP("RFRTG") ;
P(F, ALCER) = IOC(F, ALCER) * RES(F, "REINDEX")*YGP("RFRTC");
P(F, ALFRN) = IOC(F, ALFRN) * RES(F, "REINDEX")*YGP("RFRTF");
P(D, IR) = IOC(D, IR)*YGP("RLMDG") ;
P(D, ALCER) = IOC(D, ALCER)*YGP("RLMDC") ;

P(OAL, IR) = IOC(OAL, IR)*YGP("RYIEG") ;
P(OAL, ALCER) = IOC(OAL, ALCER)*YGP("RYIEC") ;
P(OAL, ALFRN) = IOC(OAL, ALFRN)*YGP("RYIEF") ;

P(G, IR) = IOC(G, IR)*YGP("RYIEG") ;
P(G, ALCER) = IOC(G, ALCER)*YGP("RYIEC") ;

```

PARAMETER PG CROP PRODUCTION COEFS FOR GAP;

```

PG("TYR", IG, T, LC, ALR)$(IOLN(IG, T, LC, ALR, "TYR") NE 0) =
    IOLN(IG, T, LC, ALR, "TYR");

PG(TG, IG, T, LC, ALR)$(IOLN(IG, T, LC, ALR, "TYR") NE 0.0)
    = IOLN(IG, T, LC, ALR, TG);
PG(LG, IG, T, LC, ALR)$(PG("TYR", IG, T, LC, ALR) NE 0)
    =IOLB(IG, T, LC, ALR, LG)*10*YGP("GLMDG");
PG(LG, AGCER, T, LC, ALR)$(PG("TYR", AGCER, T, LC, ALR) NE 0)
    =IOLB(AGCER, T, LC, ALR, LG)*10*YGP("GLMDC");
PG(LG, AGFRN, T, LC, ALR)$(PG("TYR", AGFRN, T, LC, ALR) NE 0)
    =IOLB(AGFRN, T, LC, ALR, LG)*10*YGP("GLMDF");
PG(MG, IG, T, LC, ALR)$(PG("TYR", IG, T, LC, ALR) NE 0)
    =IOMH(IG, T, LC, ALR, MG)*10*YGP("GLMDG");
PG(MG, AGCER, T, LC, ALR)$(PG("TYR", AGCER, T, LC, ALR) NE 0)
    =IOMH(AGCER, T, LC, ALR, MG)*10*YGP("GLMDC");
PG(MG, AGFRN, T, LC, ALR)$(PG("TYR", AGFRN, T, LC, ALR) NE 0)
    =IOMH(AGFRN, T, LC, ALR, MG)*10*YGP("GLMDF");

PG(F, IG, T, LC, ALR)$(PG("TYR", IG, T, LC, ALR) NE 0)
    =IOFC(IG, T, LC, ALR, F)*10*YGP("GFRTG");
PG(F, AGCER, T, LC, ALR)$(PG("TYR", AGCER, T, LC, ALR) NE 0)
    =IOFC(AGCER, T, LC, ALR, F)*10*YGP("GFRTC");
PG(F, AGFRN, T, LC, ALR)$(PG("TYR", AGFRN, T, LC, ALR) NE 0)
    =IOFC(AGFRN, T, LC, ALR, F)*10*YGP("GFRTF");
PG(D, IG, T, LC, ALR)$(IOSD(IG, T, LC, ALR, D) NE 0)
    =IOSD(IG, T, LC, ALR, D)*10*YGP("GLMDG");
PG(D, AGCER, T, LC, ALR)$(IOSD(AGCER, T, LC, ALR, D) NE 0)
    =IOSD(AGCER, T, LC, ALR, D)*10*YGP("GLMDC");

PG(OCR, IG, T, LC, ALR)$(PG("TYR", IG, T, LC, ALR) NE 0)
    =(IOYI(IG, T, LC, ALR, OCR)/100)*YGP("GYIEG");
PG(OCR, AGCER, T, LC, ALR)$(PG("TYR", AGCER, T, LC, ALR) NE 0)
    =(IOYI(AGCER, T, LC, ALR, OCR)/100)*YGP("GYIEC");
PG(OCR, AGFRN, T, LC, ALR)$(PG("TYR", AGFRN, T, LC, ALR) NE 0)
    =(IOYI(AGFRN, T, LC, ALR, OCR)/100)*YGP("GYIEF");

PG(G1, IG, T, LC, ALR)$(IOBY(IG, T, LC, ALR, G1) NE 0)
    =(IOBY(IG, T, LC, ALR, G1)/100)*YGP("GYIEG");
PG(G1, AGCER, T, LC, ALR)$(IOBY(AGCER, T, LC, ALR, G1) NE 0)
    =(IOBY(AGCER, T, LC, ALR, G1)/100)*YGP("GYIEC");
PG(W, IG, T, LC, PJ)$(IOWT(IG, T, LC, PJ, W) NE 0.0)
    =IOWT(IG, T, LC, PJ, W)*10 ;

```

Appendix D: COMPUTER PROGRAM FOR TURGAP

```

PARAMETERS      Q      LIVESTOCK PRODUCTION COEFFICIENTS,
                 QQ     INDEX OF LIVESTOCK GRAIN CONSUMPTION
                 / COMWHEAT=1, DURWHEAT=1, CORN=1, RYE=1, BARLEY=1 /
;
Q(L,J) = (IOC("LABOR",J) / 4) ;
Q("ANIMAL",J) = IOC("ANIMAL",J) ;

* YIELD GROWTH FOR THE PROJECTIONS

Q(O,J) = (IOC(O,J) *MACRO("YLDGROW")) / 1000 ;
Q("TENE",J) = ((SUM(O,IOC(O,J) * FEEDREQ(O)) + FEEDABS(J,"NEED"))
               *FEEDABS(J,"PROGRESS"));
Q(TC,J) = Q("TENE",J) * IOC(TC,J)/100;
Q(G,J) = Q(G,J) / 1000 ;

-----*

PARAMETER      PCOST      CROP PRODUCTION COSTS FOR ROT,
                PGCONST   CROP PRODUCTION COSTS FOR GAP;

PCOST("FERTILIZER",IR)=SUM(F,P(F,IR) *RES(F,"PRICE")
                          *RES(F,"PINDE2010"));
PCOST("SEED",IR) = SUM(D,P(D,IR)*RES(D,"PRICE")*RES(D,"PINDE2010"))
                / (MACRO("EXRATE")*MACRO("EXRINX2010"));
PCOST("CAPITAL",IR) = P("TREE",IR) * RES(IR,"PRICE")*RES(IR,"PINDE2010")
                / (MACRO("EXRATE")*MACRO("EXRINX2010"));
PCOST("CWCCERX",IR) = (P("IRR-
EITH",IR) * WATCHA("WCERX") * WATCHA("WPINDE")) /
                (MACRO("EXRATE") * MACRO("EXRINX2010"));
PCOST("CWCRCR",IR) = (P("IRR-
EITH",IR) * WATCHA("WCRIC") * WATCHA("WPINDE")) /
                (MACRO("EXRATE") * MACRO("EXRINX2010"));
PCOST("CWCPUL",IR) = (P("IRR-
EITH",IR) * WATCHA("WCPUL") * WATCHA("WPINDE")) /
                (MACRO("EXRATE") * MACRO("EXRINX2010"));
PCOST("CWCTUB",IR) = (P("IRR-
EITH",IR) * WATCHA("WCTUB") * WATCHA("WPINDE")) /
                (MACRO("EXRATE") * MACRO("EXRINX2010"));
PCOST("CWCVEGX",IR) = (P("IRR-
EITH",IR) * WATCHA("WCVEGX") * WATCHA("WPINDE")) /
                (MACRO("EXRATE") * MACRO("EXRINX2010"));
PCOST("CWCME",IR) = (P("IRR-
EITH",IR) * WATCHA("WCME") * WATCHA("WPINDE")) /
                (MACRO("EXRATE") * MACRO("EXRINX2010"));
PCOST("CWCOIL",IR) = (P("IRR-
EITH",IR) * WATCHA("WCOIL") * WATCHA("WPINDE")) /
                (MACRO("EXRATE") * MACRO("EXRINX2010"));
PCOST("CWCIND",IR) = (P("IRR-
EITH",IR) * WATCHA("WCIND") * WATCHA("WPINDE")) /
                (MACRO("EXRATE") * MACRO("EXRINX2010"));
PCOST("CWCFFED",IR) = (P("IRR-
EITH",IR) * WATCHA("WCFED") * WATCHA("WPINDE")) /
                (MACRO("EXRATE") * MACRO("EXRINX2010"));
PCOST("CWCFRNX",IR) = (P("TREE",IR) * WATCHA("WCFRNX") * WATCHA("WPINDE"))
                /
                (MACRO("EXRATE") * MACRO("EXRINX2010"));
PCOST("CWCFIG",IR) = (P("TREE",IR) * WATCHA("WCFIG") * WATCHA("WPINDE")) /
                (MACRO("EXRATE") * MACRO("EXRINX2010"));
PCOST("CWCCIT",IR) = (P("TREE",IR) * WATCHA("WCCIT") * WATCHA("WPINDE")) /
                (MACRO("EXRATE") * MACRO("EXRINX2010"));
PCOST("CWCGR",IR) = (P("TREE",IR) * WATCHA("WCGR") * WATCHA("WPINDE")) /
                (MACRO("EXRATE") * MACRO("EXRINX2010"));

PGCOST("FERTILIZER",IG,T,LC,ALR)
      = SUM(F$(PG(F,IG,T,LC,ALR) NE 0), PG(F,IG,T,LC,ALR) *
          RES(F,"PRICE") * RES(F,"PINDE2010"));
PGCOST("SEED",IG,T,LC,ALR)
      = SUM(D$(PG(D,IG,T,LC,ALR) NE 0), (PG(D,IG,T,LC,ALR) *
          RES(D,"PRICE") * RES(D,"PINDE2010")) / (MACRO("EXRATE") *
          MACRO("EXRINX2010")));
PGCOST("CAPITAL",AGFRN,T,LC,ALR) = (PG("TYR",AGFRN,T,LC,ALR) NE 0)
      = (PG("TYR",AGFRN,T,LC,ALR) * RES(AGFRN,"PRICE")) *

```



Appendix D: COMPUTER PROGRAM FOR TURGAP

```

RES(AGFRN,"PINDEX2010")/(MACRO("EXRATE")*MACRO("EXRINX2010"));

PGCOST("WCCERX",IGCERX,T,LC,PJ)$ (PG("TYR",IGCERX,T,LC,PJ) NE 0)
=(PG("TYR",IGCERX,T,LC,PJ)*WATCHA("WCCERX")*WATCHA("WPINDE"))/
(MACRO("EXRATE")*MACRO("EXRINX2010"));

PGCOST("WCRCIC",IGRIC,T,LC,PJ)$ (PG("TYR",IGRIC,T,LC,PJ) NE 0)
=(PG("TYR",IGRIC,T,LC,PJ)*WATCHA("WCRCIC")*WATCHA("WPINDE"))/
(MACRO("EXRATE")*MACRO("EXRINX2010"));

PGCOST("WCWPUL",IGPUL,T,LC,PJ)$ (PG("TYR",IGPUL,T,LC,PJ) NE 0)
=(PG("TYR",IGPUL,T,LC,PJ)*WATCHA("WCWPUL")*WATCHA("WPINDE"))/
(MACRO("EXRATE")*MACRO("EXRINX2010"));

PGCOST("WCCTUB",IGTUB,T,LC,PJ)$ (PG("TYR",IGTUB,T,LC,PJ) NE 0)
=(PG("TYR",IGTUB,T,LC,PJ)*WATCHA("WCCTUB")*WATCHA("WPINDE"))/
(MACRO("EXRATE")*MACRO("EXRINX2010"));

PGCOST("WCVEGX",IGVEGX,T,LC,PJ)$ (PG("TYR",IGVEGX,T,LC,PJ) NE 0)
=(PG("TYR",IGVEGX,T,LC,PJ)*WATCHA("WCVEGX")*WATCHA("WPINDE"))/
(MACRO("EXRATE")*MACRO("EXRINX2010"));

PGCOST("CWCMEI",IGMEL,T,LC,PJ)$ (PG("TYR",IGMEL,T,LC,PJ) NE 0)
=(PG("TYR",IGMEL,T,LC,PJ)*WATCHA("CWCMEI")*WATCHA("WPINDE"))/
(MACRO("EXRATE")*MACRO("EXRINX2010"));

PGCOST("CWCOIL",IGOIL,T,LC,PJ)$ (PG("TYR",IGOIL,T,LC,PJ) NE 0)
=(PG("TYR",IGOIL,T,LC,PJ)*WATCHA("CWCOIL")*WATCHA("WPINDE"))/
(MACRO("EXRATE")*MACRO("EXRINX2010"));

PGCOST("CWCIND",IGIND,T,LC,PJ)$ (PG("TYR",IGIND,T,LC,PJ) NE 0)
=(PG("TYR",IGIND,T,LC,PJ)*WATCHA("CWCIND")*WATCHA("WPINDE"))/
(MACRO("EXRATE")*MACRO("EXRINX2010"));

PGCOST("CWCFFED",IGFED,T,LC,PJ)$ (PG("TYR",IGFED,T,LC,PJ) NE 0)
=(PG("TYR",IGFED,T,LC,PJ)*WATCHA("CWCFFED")*WATCHA("WPINDE"))/
(MACRO("EXRATE")*MACRO("EXRINX2010"));

PGCOST("CWCFRNX",IGFRNX,T,LC,PJ)$ (PG("TYR",IGFRNX,T,LC,PJ) NE 0)
=(PG("TYR",IGFRNX,T,LC,PJ)*WATCHA("CWCFRNX")*WATCHA("WPINDE"))/
(MACRO("EXRATE")*MACRO("EXRINX2010"));

PGCOST("CWCFIG",IGFIG,T,LC,PJ)$ (PG("TYR",IGFIG,T,LC,PJ) NE 0)
=(PG("TYR",IGFIG,T,LC,PJ)*WATCHA("CWCFIG")*WATCHA("WPINDE"))/
(MACRO("EXRATE")*MACRO("EXRINX2010"));

PGCOST("CWCGRA",IGGRA,T,LC,PJ)$ (PG("TYR",IGGRA,T,LC,PJ) NE 0)
=(PG("TYR",IGGRA,T,LC,PJ)*WATCHA("CWCGRA")*WATCHA("WPINDE"))/
(MACRO("EXRATE")*MACRO("EXRINX2010"));

```

```

*-----*
*          DEMAND CURVES CALCULATIONS          *
*-----*

```

```

PARAMETERS      IMPRICE      IMPORT PRICE,
EXPRI           EXPRI           EXPORT PRICE,
TCON            TCON            CONSUMPTION OF RAW PRODUCTS,
DPRI           DPRI           DEMAND CURVE PRICES,
ALPHA          ALPHA          DEMAND CURVE INTERCEPT,
BETA           BETA           DEMAND CURVE SLOPE,
ALPHA10       ALPHA10       PROJECTED INTERCEPT,
BETA10        BETA10        PROJECTED SLOPE,
EXPINDEX       EXPINDEX      EXPORT INDEX,
IMPINDEX       IMPINDEX      IMPORT INDEX;
IMPRICE(O)    = TRADE(O,"IMP-P");
IMPINDEX(O)   $ TRADE(O,"IMP-Q") = 1 ;
EXPRI(O)      = TRADE(O,"EXP-P");
EXPINDEX(O)   $ TRADE(O,"EXP-Q") = 1 ;
TCON(O)       = DOM(O,"DPROD")*(1-CONCENT(O))*(1-CONOIL(O))
              + TRADE(O,"IMP-Q")
              - TRADE(O,"EXP-Q")
              - FEEDGRAIN(O,"USEGR");
DPRI(O)       = DOM(O,"DPRICES")*1000 / MACRO("EXRATE");
BETA(O)       = DPRI(O) / (PAR(O,"ELAST-P") * TCON(O));

```

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*-----*
*          GRAIN-FEED USE CALIBRATION          *
*-----*

```

```

-----*
*
  ALPHA(O)      = DPRI(O) - BETA(O) * TCON(O)      ;
*DISPLAY TCON,DPRI,ALPHA,BETA;

-----*
*
  DEMAND CURVE PROJECTIONS TO 2010
*
-----*
  BETA10(O) = BETA(O)/((1+MACRO("POPGROW"))**22);
  ALPHA10(O) = ALPHA(O)*(1+PAR(O,"ELAST-I")*(((1+MACRO("INCGROW"))**22)-
1));
* DISPLAY ALPHA,ALPHA10,BETA,BETA10;
*$OFFTEXT

-----*
*
  5M. EQUATION PART
*
-----*

VARIABLES      PROFIT      OBJECTIVE FUNCTION
                RELFAL      RELATIVE FALLOW

POSITIVE VARIABLES
                CROPS      PRODUCTION OF CROP ROT
                CROPSG     PRODUCTION OF CROP GAP
                PRODUCT    PRODUCTION OF LIVESTOCK
                PFERT      PURCHASE OF FERTILIZER
                PCOST      PRODUCTION COSTS
                LATRUSE    LABOR AND TRACTOR USE
                FEED       FEED USE IN ANIMAL PRODUCTION IN ENERGY UNITS
                FGRAIN     COMPOSITION OF FEEDGRAIN IN PRODUCT WEIGHT
                TPRROT     PRODUCTION IN ROT
                TPRGAP     PRODUCTION IN GAP
                TOTALPROD  TOTAL PRODUCTION IN RAW FORM
                TOTALCONS  TOTAL CONSUMPTION IN PROCESSED FORM
                IMPORT     IMPORT OF LIVESTOCK AND CROPS
                EXPORT     EXPORT OF LIVESTOCK AND CROPS
                CERAREA    CEREAL AREA
                FALAREA    FALLOW AREA
                LATRUSEG   LABOR AND TRACTOR USE IN GAP
;
* BOUNDS FOR TRADE
  IMPORT.UP(O)  = TRADE2010(O,"IMP-Q") ;
  EXPORT.UP(O)  = TRADE2010(O,"EXP-Q") ;

* INTITIAL CONDITIONS
  TOTALPROD.L(OAL) = DOM(OAL,"DPROD");
  TOTALCONS.L(O)   = DOM(O,"DPROD") ;
  PRODUCT.L(J)     = RES(J,"QUANT") ;

EQUATIONS      LAND      BASIC LAND CONSTRAINTS
                LABTRAC   LABOR AND TRACTOR CONSTRAINTS
                PURCFERT   PURCHASE FERTILIZER
                PRODCOST   PRODUCTION COSTS
                TPRODROT   PRODUCTION ROT
                TPROD GAP  PRODUCTION GAP
                PRODUCTION PRODUCTION BALANCES
                FEEDSTRAW  FEED SUPPLY STRAW
                FEEDCON    FEED SUPPLY CONCENTRATES
                FEEDCERI   GRAIN USED FOR ANIMAL FEEDING
                FEEDPAST   FEED SUPPLY FROM PASTURE
                FEEDOIL    FEED SUPPLY OIL CAKE
                FEEDFODD   FEED SUPPLY ALFALFA AND FODDER
                TOTALFEED  TOTAL FEED BALANCE
                MINFEED    MINIMUM FEED REQUIREMENTS BY COMPONENTS
                MINGRCOIL  MINIMUM GRAIN CONCENTRATES AND OILCAKE
                MINGROIL   MINIMUM GRAIN AND OILCAKE
                MINGRAIN   MINIMUM SHARE OF INDIVIDUAL GRAINS
                COMBAL     COMMODITIES BALANCES
                CERBAL     CEREAL BALANCE
                FALBAL     FALLOW BALANCE
                SURPLUS    OBJECTIVE FUNCTION
                ANIMALINV  ANIMAL INVENTORY

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Appendix D: COMPUTER PROGRAM FOR TURGAP

LANDDG DRY LAND CONSTRAINTS FOR GAP  
 LANDIG IRRI LAND CONSTRAINTS FOR GAP  
 LABTRACG LABOR AND TRACTOR CONSTRAINTS FOR GAP  
 WATERPK PEAK PERIODS WATER CONSTRAINTS  
 WATERNPK WATER NON PEAK PERIODS CONSTRAINTS  
 WATERTOT WATER YEARLY CONSTRAINTS  
 FRUUL1 FRUITS AND NUTS AREA UPPER LIMIT LC1I  
 FRUUL2 FRUITS AND NUTS AREA UPPER LIMIT LC23  
 FRUUL3 FRUITS AND NUTS AREA UPPER LIMIT LC1D  
 FRUUL4  
 FRUUL5  
 FRUUL6  
 FRUUL7  
 RFRLOL ROT FRUIT LOWER LIMIT  
 CEVAROT CEREALS VARIOUS ROTATION  
 GVEGLI GAP VEGS LIMIT  
 GVEGLI2  
 CCEREA  
 CPULSE  
 CSUNFL  
 CSOYBE  
 CGROUN  
 CCOTTO  
 CSUGAR  
 CPOTAT  
 CONION  
 CMELON

```

?
LAND(S)..      SUM(IR, P(S,IR) * CROPS(IR))
               =L= RES(S, "QUANT")*RES(S,"QINDEX2010")      ;

LABTRAC(LM)..  SUM((IR), P(LM,IR) * CROPS(IR))
               +SUM(J,Q(LM,J) * PRODUCT(J))
               +LABFED(LM) * FEED("TSTRAW")
               =E= LATRUSE(LM)                                ;

LANDDG(RF,LC,TG).. SUM((IG,T), PG(TG,IG,T,LC,RF) *
               CROPSG(IG,T,LC,RF)) =L= DLNGAP(RF,LC)/1000 ;

LANDIG(PJ,LC,TG).. SUM((IG,T), PG(TG,IG,T,LC,PJ) *
               CROPSG(IG,T,LC,PJ)) =L= ILNGAP(PJ,LC)/1000 ;

LABTRACG(LMG).. SUM((IG,T,LC,ALR), PG(LMG,IG,T,LC,ALR) *
               CROPSG(IG,T,LC,ALR)) =E= LATRUSEG(LMG)      ;

WATERPK(PJ,WPK).. SUM((IG,T,LC), PG(WPK,IG,T,LC,PJ) *
               CROPSG(IG,T,LC,PJ)) =L=
               WGAP(PJ,"WAP")*MACRO("MMHA")*WGAP(PJ,"EP") ;

WATERNPK(PJ,WNPK).. SUM((IG,T,LC), PG(WNPK,IG,T,LC,PJ) *
               CROPSG(IG,T,LC,PJ)) =L=
               WGAP(PJ,"WANP")*MACRO("MMHA")*WGAP(PJ,"EP") ;

WATERTOT(PJ).. SUM((W,IG,T,LC), PG(W,IG,T,LC,PJ) *
               CROPSG(IG,T,LC,PJ)) =L=
               WGAP(PJ,"WAT")*MACRO("MMHA")*WGAP(PJ,"EP") ;

* AGRONOMIC CONSTRAINTS

CCEREA(LC,PJ).. SUM((IGWB,T), PG("TYR",IGWB,T,LC,PJ)
               *CROPSG(IGWB,T,LC,PJ))
               =L= (ILNGAP(PJ,LC)/1000)*0.5 ;

CPULSE(LC,PJ).. SUM((IGPUL,T), PG("TYR",IGPUL,T,LC,PJ)
               *CROPSG(IGPUL,T,LC,PJ))
               =L= (ILNGAP(PJ,LC)/1000)*0.5 ;

CSUNFL(LC,PJ).. SUM((IGSUN,T), PG("TYR",IGSUN,T,LC,PJ)

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```

          *CROPSG(IGSUN,T,LC,PJ))
          =L= (ILNGAP(PJ,LC)/1000)*0.5 ;

CSOYBE(LC,PJ).. SUM((IGSOY,T), PG("TYR",IGSOY,T,LC,PJ)
          *CROPSG(IGSOY,T,LC,PJ))
          =L= (ILNGAP(PJ,LC)/1000)*0.5 ;

CGROUN(LC,PJ).. SUM((IGGRO,T), PG("TYR",IGGRO,T,LC,PJ)
          *CROPSG(IGGRO,T,LC,PJ))
          =L= (ILNGAP(PJ,LC)/1000)*0.5 ;

CCOTTO(LC,PJ).. SUM((IGCOT,T), PG("TYR",IGCOT,T,LC,PJ)
          *CROPSG(IGCOT,T,LC,PJ))
          =L= (ILNGAP(PJ,LC)/1000)*0.66 ;

CSUGAR(LC,PJ).. SUM((IGSUG,T), PG("TYR",IGSUG,T,LC,PJ)
          *CROPSG(IGSUG,T,LC,PJ))
          =L= (ILNGAP(PJ,LC)/1000)*0.33 ;

CPOTAT(LC,PJ).. SUM((IGPOT,T), PG("TYR",IGPOT,T,LC,PJ)
          *CROPSG(IGPOT,T,LC,PJ))
          =L= (ILNGAP(PJ,LC)/1000)*0.5 ;

CONION(LC,PJ).. SUM((IGONI,T), PG("TYR",IGONI,T,LC,PJ)
          *CROPSG(IGONI,T,LC,PJ))
          =L= (ILNGAP(PJ,LC)/1000)*0.5 ;

CMELON(LC,PJ).. SUM((IGMEL,T), PG("TYR",IGMEL,T,LC,PJ)
          *CROPSG(IGMEL,T,LC,PJ))
          =L= (ILNGAP(PJ,LC)/1000)*0.5 ;

GVEGLI(LC,PJ).. SUM((IGVEGX,T), PG("TYR",IGVEGX,T,LC,PJ)*
          CROPSG(IGVEGX,T,LC,PJ)) =L=
          (ILNGAP(PJ,LC)/1000)*0.25;

GVEGLI2(LC,PJ,IGVEGX).. SUM(T, PG("TYR",IGVEGX,T,LC,PJ)*
          CROPSG(IGVEGX,T,LC,PJ)) =L=
          (ILNGAP(PJ,LC)/1000)*0.25*0.25;

CEVAROT(LC,RF).. SUM((DGCER,T), PG("TYR",DGCER,T,LC,RF)
          *CROPSG(DGCER,T,LC,RF))
          =E=SUM((DGVAR,T), PG("TYR",DGVAR,T,LC,RF)
          *CROPSG(DGVAR,T,LC,RF));

FRUUL1(PJ,LCT1).. SUM((IGFRN,T), PG("TYR",IGFRN,T,LCT1,PJ)*
          CROPSG(IGFRN,T,LCT1,PJ)) =L= (ILNGAP(PJ,LCT1)/1000)*0.15;

FRUUL2(PJ,LC23).. SUM((IGFRN,T), PG("TYR",IGFRN,T,LC23,PJ)*
          CROPSG(IGFRN,T,LC23,PJ)) =L= (ILNGAP(PJ,LC23)/1000)*0.15;

FRUUL3(RF,LCT1).. SUM((DGFRN,T), PG("TYR",DGFRN,T,LCT1,RF)*
          CROPSG(DGFRN,T,LCT1,RF)) =L= (DLNGAP(RF,LCT1)/1000)*0.15;

FRUUL4(RFX,LC23).. SUM((DGFRN,T), PG("TYR",DGFRN,T,LC23,RFX)*
          CROPSG(DGFRN,T,LC23,RFX)) =L= (DLNGAP(RFX,LC23)/1000)*0.40;

FRUUL5(RFX,LCT4).. SUM((DGFRN,T), PG("TYR",DGFRN,T,LCT4,RFX)*
          CROPSG(DGFRN,T,LCT4,RFX)) =L= (DLNGAP(RFX,LCT4)/1000)*0.50;

FRUUL6(RFSL,LC24).. SUM((DGFRN,T), PG("TYR",DGFRN,T,LC24,RFSL)*
          CROPSG(DGFRN,T,LC24,RFSL)) =L= (DLNGAP(RFSL,LC24)/1000)*0.90;

FRUUL7.. SUM((DGFRN,T,LC), PG("TYR",DGFRN,T,LC,"SLR")*
          CROPSG(DGFRN,T,LC,"SLR")) =L=
          (SUM(LC, DLNGAP("SLR",LC))/1000)*0.50;

RFRLOL(OFRX).. SUM(ALFRN, P(OFRX, ALFRN)*CROPS(ALFRN))
          =G= 0.75*DOM(OFRX,"DPROD");

```

Appendix D: COMPUTER PROGRAM FOR TURGAP

```

ANIMALINV(J).. PRODUCT(J) =L= RES(J,"QUANT")*2.0;

FEEDSTRAW.. SUM((IR,G1),P(G1,IR) * CROPS(IR) *ENEC(G1))
+SUM((IG,G1,T,LC,ALR), PG(G1,IG,T,LC,ALR)*
CROPSG(IG,T,LC,ALR)*ENEC(G1))
=G= FEED("TSTRAW") ;

FEEDCON.. SUM(G2, TOTALPROD(G2) * CONCENT(G2) * ENEC(G2))
=G= FEED("TCONCEN") ;

FEEDCERI.. SUM(G3,FGRAIN(G3) *FEEDGRAIN(G3,"ENEGR"))
=G= FEED("TGRAIN") ;

FEEDPAST.. CROPS("PASTUSE")*P("PASTFEED","PASTUSE")
=G= FEED("TPAST") ;

FEEDOIL.. SUM(G4, TOTALPROD(G4) * CONOIL(G4) * ENEC(G4))
=G= FEED("TOIL") ;

FEEDFODD.. SUM(G5,TOTALPROD(G5) * ENEC(G5))
=G= FEED("TFODD") ;

TOTALFEED.. SUM(TF,FEED(TF))
=G= SUM(J,Q("TENE",J) * PRODUCT(J)) ;

MINFEED(TF).. FEED(TF) =G= SUM(J,Q(TF,J) *PRODUCT(J)) ;
MINGRCOIL.. FEED("TGRAIN") + FEED("TCONCEN") + FEED("TOIL")
=G= SUM(J,Q("TGRCONOIL",J) * PRODUCT(J)) ;
MINGROIL.. FEED("TGRAIN") + FEED("TOIL")
=G= SUM(J,Q("TGROIL",J) * PRODUCT(J)) ;
MINGRAIN(G3).. FGRAIN(G3) * FEEDGRAIN(G3,"ENEGR")
=G= FEED("TGRAIN") * FEEDGRAIN(G3,"MINGR") ;
PURCFERT(F).. (SUM(IR, P(F,IR) * CROPS(IR)))
+(SUM((IG,T,LC,ALR), PG(F,IG,T,LC,ALR) *
CROPSG(IG,T,LC,ALR)))
=E= PFERT(F) ;

PRDCOST(E).. (SUM(IR, PCOST(E,IR) * CROPS(IR)))
+(SUM((IG,T,LC,ALR), PGCOST(E,IG,T,LC,ALR) *
CROPSG(IG,T,LC,ALR)))
=E= PRCOST(E) ;

TPRODROT(OAL).. -(SUM(IR, P(OAL,IR) * CROPS(IR))
+SUM(J,Q(OAL,J) * PRODUCT(J)))+TPRROT(OAL) =L= 0;

TPRODGAP(OAL).. -(SUM((IG,T,LC,ALR), PG(OAL,IG,T,LC,ALR) *
CROPSG(IG,T,LC,ALR)))+TPRGAP(OAL) =L= 0 ;

PRODUCTION(OAL).. -(TPRROT(OAL)+TPRGAP(OAL))+TOTALPROD(OAL) =L= 0 ;

COMBAL(O).. -(TOTALPROD(O)*(1-CONCENT(O))*(1-CONOIL(O))+IMPORT(O))
+(TOTALCONS(O)+EXPORT(O)+ QQ(O)*FGRAIN(O))=L= 0 ;

CERBAL.. SUM((BC,IR), P(BC,IR) * CROPS(IR))
=E= CERAREA ;

FALBAL.. SUM(IR, P("FALLOW",IR) * CROPS(IR))
=E= FALAREA ;

SURPLUS.. SUM(O, ALPHA10(O) * TOTALCONS(O) + 0.5 * BETA10(O)
* TOTALCONS(O) ** 2)
+ SUM(O, EXPORT(O)*(TRADE(O,"EXP-P")*
TRADE(O,"PFACT10"))))
- SUM(O, IMPORT(O)*(TRADE(O,"IMP-P")*
TRADE(O,"PFACT10"))))
- SUM(E, PRCOST(E))
+ 0.37*(SUM(J, Q("ANIMAL",J)*PRODUCT(J)))
- 0.5 * SUM(LM,PQPLT(LM) * LATRUSE(LM) ** 2 )
- 0.5*SUM(LG, PQPLG*LATRUSEG(LG)**2)
- 0.5*SUM(MG, PQPTG*LATRUSEG(MG)**2)
- 0.5 * SUM(OCR,PAR(OCR,"PQP1")* TOTALPROD(OCR)**2)
- 0.5 * SUM(J, RES(J,"PQP3")* PRODUCT(J)**2)
=E= PROFIT ;

```

\* -----  
OPTION LIMROW = 1 ;

```

OPTION      LIMCOL =      0      ;
OPTION      ITERLIM = 30000      ;
OPTION      RESLIM = 30000      ;
MODEL TGAP / LAND, LABTRAC, PURCFERT, PRODCOST,
             FEEDSTRAW, FEEDCON, FEEDCERI, FEEDPAST, FEEDOIL, FEEDFODD,
             TOTALFEED, MINFEED, MINGRCOIL, MINGROIL, MINGRAIN,
             CERBAL, FALBAL, SURPLUS, ANIMALINV,
             LANDDG, LANDIG, LABTRACG, WATERPK, WATERNP, WATERTOT,
             FRUUL1, FRUUL2, FRUUL3, FRUUL4, FRUUL5, FRUUL6, FRUUL7, RFRLOL,
             GVEGLI, CEVAROT,
             GVEGLI2, CCEREA, CPULSE, CSUNFL, CSOYBE, CGROUN, CCOTTO,
             CSUGAR, CPOTAT, CONION, CMELON,
             TPRODROT, TPRODGP, PRODUCTION, COMBAL / ;

SOLVE      TGAP      MAXIMIZING PROFIT USING NLP      ;

```

\*-----\*

RESTART PROGRAM FILE TO INCORPORATE THE TRANSPORTATION COSTS

\$TITLE TURGAP-CALIB  
\$OFFSYMLIST OFFSYMXREF

TABLE CSTR TRANS COSTS

	CCTRAN	REGC
COMWHEAT	43	0.8
DURWHEAT	43	0.8
CORN	43	0.8
RYE	43	0.8
BARLEY	43	0.8
RICE	43	1.0
CHICK-PEA	55	1.0
DRY-BEAN	55	1.0
LENTIL	55	1.0
DRY-PEA		
POTATO	55	0.5
EARLY-POT	55	0.8
ONION	55	0.5
FRE-TOMATO	82	1.0
CON-TOMATO	82	0.5
AUBERGINE	82	1.0
MELON	82	0.5
CAULIFLOWR	82	1.0
WAT-MELON	82	0.5
CARROT	82	1.0
CABBAGE	82	0.5
CUCUMBER	82	1.0
OKRA	82	1.2
PEPPER	82	1.0
LETTUCE	82	0.5
SPINACH	82	1.0
SQUASH	82	1.0
LEEK	82	1.0
GROUNDNUT	55	1.0
SESAME	55	1.0
SUNFLOWER	55	1.0
SOYABEAN	55	0.5
LINSEED		
COLZA		
COTTON	55	0.5
TOBACCO	55	1.0
SUGARBEET	55	0.3
PISTACHIO	55	1.0
HAZELNUT		
TAB-OLIVE	82	1.0
OIL-OLIVE	82	1.0
TEA		

Appendix D: COMPUTER PROGRAM FOR TURGAP

```

TAB-GRAPE      82    0.8
WINE-GRAPE    82    0.8
SULTANA       82    0.8
FRE-FIGS      82    1.0
DRY-FIGS      82    1.0
ORANGE
LEMON
APPLE         82    1.0
PEARS        82    1.0
FRE-PEACH    82    1.0
PRO-PEACH    82    1.0
APRICOT      82    1.0
CHERRY       82    1.0
WILDCHERRY   82    1.0
POMEGRAN     82    0.8
;

FREE VARIABLE  TRNQTG1
;

EQUATIONS     TRANSTG1
              BOUND1
              BOUND2
              SURPLUS1
;

TRANSTG1(O)$ (CSTR(O,"CCTRAN") NE 0.0)..
              TPRROT(O)-0.85*(TPRGAP(O)+TPRROT(O)-EXPORT(O))
              =E=TRNQTG1(O)
;

BOUND1(O)$ (CSTR(O,"CCTRAN") GT 5.0)..
              TPRROT(O) =G= 0.85*(TPRGAP(O)+TPRROT(O)-EXPORT(O));
BOUND2(O)$ (CSTR(O,"CCTRAN") LT -5.0)..
              TPRROT(O) =L= 0.85*(TPRGAP(O)+TPRROT(O)-EXPORT(O));

SURPLUS1..   SUM(O, ALPHA10(O) * TOTALCONS(O) + 0.5 * BETA10(O)
              * TOTALCONS(O) ** 2)
              + SUM(O, EXPORT(O)*(TRADE(O,"EXP-P")*
              TRADE(O,"PFACT10")))
              - SUM(O, IMPORT(O)*(TRADE(O,"IMP-P")*
              TRADE(O,"PFACT10")))
              - SUM(E, PRCOST(E))
*            - SUM(OAL$(CSTR(OAL,"CCTRAN") NE 0.0), TRNQTG1(OAL)
*            *MACRO("REGC")*PAR(OAL,"CTRAN"))
              - SUM(O$(CSTR(O,"CCTRAN") NE 0.0), TRNQTG1(O)
              *CSTR(O,"REGC")*CSTR(O,"CCTRAN"))
              + 0.37*(SUM(J, Q("ANIMAL",J)*PRODUCT(J)))
              - 0.5 * SUM(LM,PQPLT(LM) * LATRUSE(LM) ** 2 )
              - 0.5*SUM(LG, PQPLG*LATRUSEG(LG)**2)
              - 0.5*SUM(MG, PQPTG*LATRUSEG(MG)**2)
              - 0.5 * SUM(OCR,PAR(OCR,"PQP1") * TOTALPROD(OCR)**2)
              - 0.5 * SUM(J, RES(J,"PQP3") * PRODUCT(J)**2)
              =E= PROFIT
;

OPTION        LIMROW = 0 ;
OPTION        LIMCOL = 0 ;
OPTION        ITERLIM = 40000 ;
OPTION        RESLIM = 40000 ;
MODEL TGAPT1 / LAND,LABTRAC,PURCFERT,PRODCOST,
              FEEDSTRAW,FEEDCON,FEEDCERI,FEEDPAST,FEEDOIL,FEEDFODD,
              TOTALFEED,MINFEED,MINGRCOIL,MINGROIL,MINGRAIN,
              CERBAL,FALBAL,SURPLUS1,ANIMALINV,
              LANDDG,LANDIG,LABTRACG,WATERPK,WATERNPK,WATERTOT,
              FRUUL1,FRUUL2,FRUUL3,FRUUL4,FRUUL5,FRUUL6,FRUUL7,RFRIOL,
              GVEGLI,CEVAROT,
              GVEGLI2,CCEREA,CPULSE,CSUNFL,CSOYBE,CGROUN,CCOTTO,

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*Appendix D: COMPUTER PROGRAM FOR TURGAP*

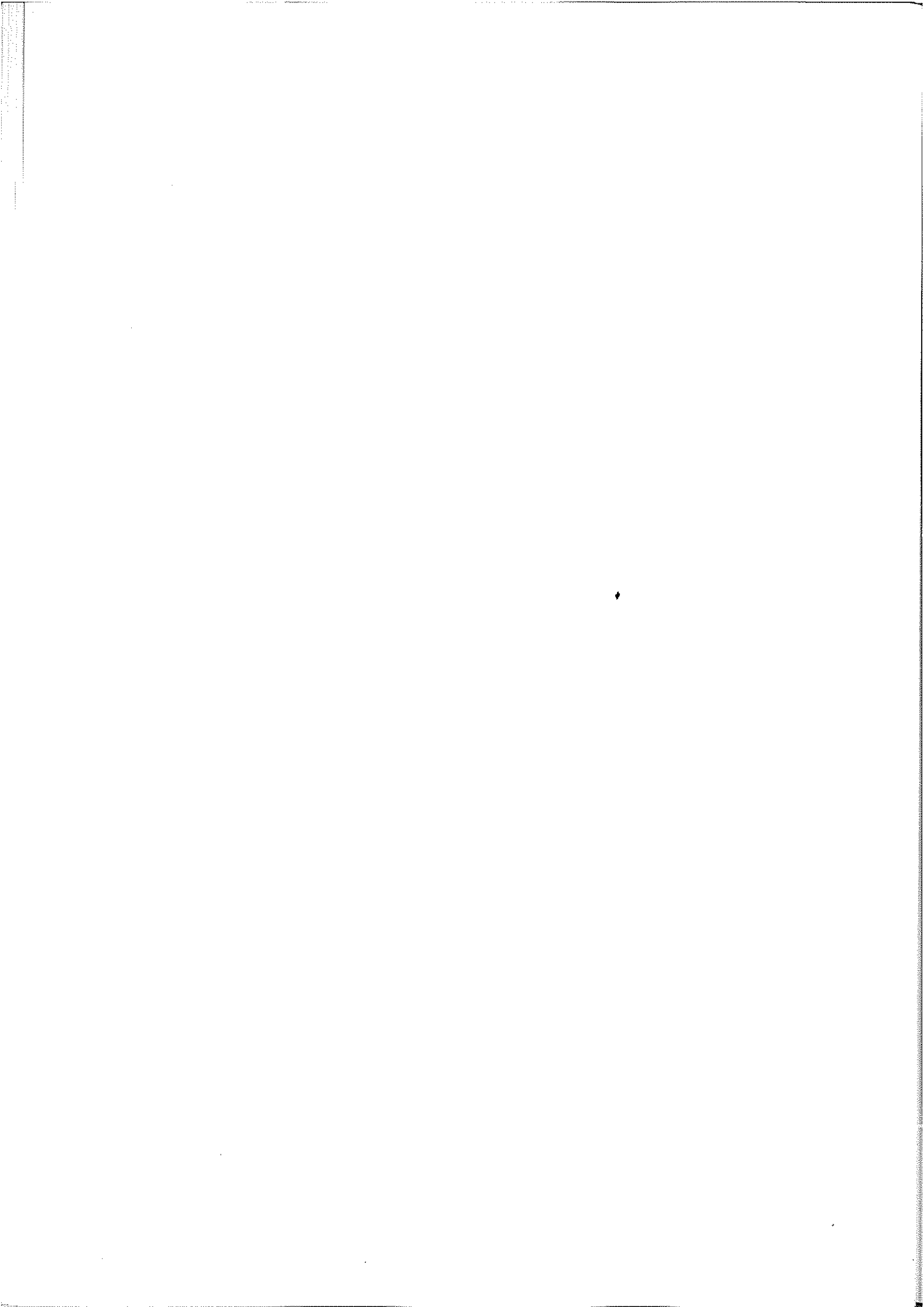
CSUGAR, CPOTAT, CONION, CMELON,  
TPRODROT, TPRODGAP, PRODUCTION, COMBAL, TRANSTG1, BOUND1, BOUND2 /;

SOLVE TGAPT1 MAXIMIZING PROFIT USING NLP ;



**APPENDIX E:**

**DATA BASE FOR TURGAP**



LEGEND FOR THE TABLES PRESENTING THE MODEL DATA

I. CROPS

CODE(a)	CROP	OUTPUT	SEED(b)	BY-PRODUCT(NOTES(d))
<b>CEREALS</b>				
BR1I	BARLEY	BARLEY	S-BARLEY	F-BARLEY
BR2I	BARLEY	BARLEY	S-BARLEY	F-BARLEY
BRLD	BARLEY	BARLEY	S-BARLEY	F-BARLEY
CG1I	CORN-GRAIN	CORN	S-CORN	F-CORN
CG2I	CORN-GRAIN	CORN	S-CORN	F-CORN
CG3I	CORN-GRAIN	CORN	S-CORN	F-CORN
CW1I	COMMON-WHEAT	COMWHEAT	S-COMWHEA	F-COMWHEAT
CW2I	COMMON-WHEAT	COMWHEAT	S-COMWHEA	F-COMWHEAT ONLY NG
CW3I	COMMON-WHEAT	COMWHEAT	S-COMWHEA	F-COMWHEAT ONLY SG
CWHD	COMMON-WHEAT	COMWHEAT	S-COMWHEA	F-COMWHEAT
DW1I	DURUM-WHEAT	DURWHEAT	S-DURWHEA	F-DURWHEAT
DW2I	DURUM-WHEAT	DURWHEAT	S-DURWHEA	F-DURWHEAT ONLY NG
DW3I	DURUM-WHEAT	DURWHEAT	S-DURWHEA	F-DURWHEAT ONLY SG
DWHD	DURUM-WHEAT	DURWHEAT	S-DURWHEA	F-DURWHEAT
RICI	RICE	RICE	S-RICE	ONLY LC1
RYED	RYE	RYE	S-RYE	F-RYE
<b>PULSES</b>				
CH1I	CHICKPEA	CHICK-PEA	S-CHICKPEA	F-PULSES
CH2I	CHICKPEA	CHICK-PEA	S-CHICKPEA	F-PULSES
CH3I	CHICKPEA	CHICK-PEA	S-CHICKPEA	F-PULSES
CHCD	CHICKPEA	CHICK-PEA	S-CHICKPEA	F-PULSES
DBNI	DRYBEAN	DRYBEAN	S-DRYBEAN	F-PULSES ONLY NG
LNTD	LENTIL	LENTIL	S-LENTIL	F-PULSES
LNTI	LENTIL	LENTIL	S-LENTIL	F-PULSES
<b>OILSEEDS</b>				
GN1I	GROUNDNUT	GROUNDNUT	S-GRUNDNUT	
GN2I	GROUNDNUT	GROUNDNUT	S-GRUNDNUT	
SB1I	SOYABEAN	SOYABEAN	S-SOYABEAN	
SB2I	SOYABEAN	SOYABEAN	S-SOYABEAN	
SB3I	SOYABEAN	SOYABEAN	S-SOYABEAN	
SESD	SESAME	SESAME	S-SESAME	
SN1I	SUNFLOWER	SUNFLOWER	S-SUNFLWER	
SN2I	SUNFLOWER	SUNFLOWER	S-SUNFLWER	
SN3I	SUNFLOWER	SUNFLOWER	S-SUNFLWER	ONLY SG
SNFD	SUNFLOWER	SUNFLOWER	S-SUNFLWER	
<b>INDUSTRIAL CROPS</b>				
CT1I	COTTON	COTTON	S-COTTON	ONLY LC1 & LC2
CT2I	COTTON	COTTON	S-COTTON	ONLY SG; LC1 & LC2
CT3I	COTTON	COTTON	S-COTTON	ONLY SG; LC1 & LC2
SBTI	SUGARBEET	SUGARBEET	S-SUGRBEET	
TOBD	TOBACCO	TOBACCO	S-TOBACCO	
<b>TUBER CROP</b>				
PTEI	EARLY-POTATO	EARLY-POT	S-POTATO	
PTLI	LATE-POTATO	POTATO	S-POTATO	
ON1I	ONION-WINTER	ONION	S-ONION	
ON2I	ONION-WINTER	ONION	S-ONION	
ON3I	ONION-WINTER	ONION	S-ONION	
ONSI	ONION-SPRING	ONION	S-ONION	

LEGEND FOR THE TABLES PRESENTING THE MODEL DATA

I. CROPS

CODE(a)	CROP	OUTPUT	SEED(b)	BY-PRODUCT	NOTES(d)
---------	------	--------	---------	------------	----------

VEGETABLES

CASI	CARROT-SPRING	CARROT	S-CARROT		
CAWI	CARROT-WINTER	CARROT	S-CARROT		
CB1I	CABBAGE	CABBAGE	S-CABBAGE		
CB2I	CABBAGE	CABBAGE	S-CABBAGE		
CB3I	CABBAGE	CABBAGE	S-CABBAGE		
CC1I	CUCUMBER	CUCUMBER	S-CUCUMBER		
CC2I	CUCUMBER	CUCUMBER	S-CUCUMBER		
CLFI	CAULIFLOWER	CAULIFLOWR	S-CAULIFLW		
CTOI	CON-TOMATO	CON-TOMATO	S-CONTOMAT		
FTOI	FRESH-TOMATO	FRE-TOMATO	S-FRETOMAT		
EG1I	EGGPLANT	AUBERGINE	S-AUBERGIN		
EG2I	EGGPLANT	AUBERGINE	S-AUBERGIN		
LEKI	LEEK	LEEK	S-LEEK		
LT1I	LETTUCE	LETTUCE	S-LETTUCE		
LT2I	LETTUCE	LETTUCE	S-LETTUCE		
LT3I	LETTUCE	LETTUCE	S-LETTUCE		
MELD	MELON	MELON	S-MELON		
MELI	MELON	MELON	S-MELON		
OKRI	OKRA	OKRA	S-OKRA		
PP1I	PEPPER	PEPPER	S-PEPPER		
PP2I	PEPPER	PEPPER	S-PEPPER		
SP1I	SPINACH-WINTER	SPINACH	S-SPINACH		
SP2I	SPINACH-WINTER	SPINACH	S-SPINACH		
SP3I	SPINACH-WINTER	SPINACH	S-SPINACH		
SPSI	SPINACH-SPRING	SPINACH	S-SPINACH		
SQAI	SQUASH	SQUASH	S-SQUASH		
WMLD	WATER-MELON	WAT-MELON	S-WATMELON		
WMLI	WATER-MELON	WAT-MELON	S-WATMELON		

FEED CROPS

ALFI	ALFALFA	ALFALFA	S-ALFALFA		
CS1I	CORN-SILAGE	CORN-SIL	S-CORN		
CS2I	CORN-SILAGE	CORN-SIL	S-CORN		
CS3I	CORN-SILAGE	CORN-SIL	S-CORN		
SG1I	SORGHUM-GRAIN	SORGHUM	S-SORGHUM		
SG2I	SORGHUM-GRAIN	SORGHUM	S-SORGHUM		
SG3I	SORGHUM-GRAIN	SORGHUM	S-SORGHUM		
SS1I	SORGHUM-SILAG	SORGHUM-SIL	S-SORGHUM		
SS2I	SORGHUM-SILAG	SORGHUM-SIL	S-SORGHUM		
SS3I	SORGHUM-SILAG	SORGHUM-SIL	S-SORGHUM		
VCFD	VETCH-FODDER	VETCH-FOD	S-VETCH		
VCGD	VETCH-GRAIN	VETCH-FOD	S-VETCH	F-VETCHG	

PERENNIALS

APPI	APPLE	APPLE			ONLY NG
APRI	APRICOT	APRICOT			
CRRI	CHERRY	CHERRY			
FGDI	DRY-FIG	DRY-FIGS			
FGFI	FRESH-FIG	FRE-FIGS			
GRSI	RAISIN	SULTANA			
GRTD	TABLE-GRAPE	TAB-GRAPE			ONLY NG & HR
GRTI	TABLE-GRAPE	TAB-GRAPE			
GRWD	WINE-GRAPE	WINE-GRAPE			ONLY HR & MR
OLOD	OIL-OLIVE	OIL-OLIVE			ONLY NG & HR

LEGEND FOR THE TABLES PRESENTING THE MODEL DATA

I. CROPS

CODE(a)	CROP	OUTPUT	SEED(b)	BY-PRODUCT	NOTES(d)
OLTD	TABLE-OLIVE	TAB-OLIVE			ONLY NG & HR
PARI	PEAR	PEARS			ONLY NG
PCFI	FRESH-PEACH	FRE-PEACH			ONLY SG
PCPI	PROCESSED-PEA	PRO-PEACH			ONLY SG
PISD	PISTACHIO	PISTACHIO			
POMI	POMEGRANATE	POMEGRAN			
WCRI	WILDCHERRY				

ADDITIONAL CROPS FOR THE REST OF TURKEY

COLZA	COLZA	S-COLZA	ROT
HAZELNUT			ROT
LEMON			ROT
LINSEED	LINSEED	S-LINSEED	ROT
ORANGE			ROT
TEA			ROT

LIVESTOCK

SHEEP-MEAT  
 SHEEP-MILK  
 SHEEP-WOOL  
 SHEEP-HIDE  
 GOAT-MEET  
 GOAT-MILK  
 GOAT-WOOL  
 GOAT-HIDE  
 ANGOR-MEET  
 ANGOR-MILK  
 ANGOR-WOOL  
 ANGOR-HIDE  
 COW-MEET  
 COW-MILK  
 COW-HIDE  
 BUFAL-MEAT  
 BUFAL-MILK

BUFAL-HIDE  
 POLTR-MEAT  
 EGGS

- (a) "I" at the end of crop codes stands for "irrigated", "D" for "dry".  
 The numbers in the crop codes (1, 2 and 3) stand for alternative seeding and harvesting dates.  
 (b) "S" stands for seed.  
 (c) "F" stands for "fodder".  
 (d) NG: North GAP  
 SG: South GAP  
 HR: High Rainfall  
 MR: Medium Rainfall  
 LCi: i<sup>th</sup> Land Class  
 ROT: Rest of Turkey

## II. PROJECT REGIONS(e)

NG : North GAP  
SG : South GAP  
N01 : Siverek-Hilvan  
N2A : Adiyaman-Kahta  
N2B : Adiyaman-Goksu-Araban  
N03 : Dicle  
N4A : Garzan  
N4B : Batman  
N4C : Batman-Silvan  
NOP : Non-Project Region  
S05 : Urfa-Harran  
S06 : Mardin-Ceylanpinar  
S07 : Bozova  
S08 : Suruc-Baziki  
S09 : Gaziantep  
S10 : Nusaybin-Cizre-Idil  
S11 : Silopi  
N00 : All project regions in North GAP  
S00 : All project regions in South GAP  
000 : All project regions (North & South)

---

(e) applies to irrigated crops

## III. RAINFALL(f)

HR : High Rainfall (only in North GAP)  
MR : Medium Rainfall (North GAP & South GAP)  
LR : Low Rainfall (only in South GAP)  
00 : All rainfall regions in both North and South GAP  
MR.0 : Data valid in medium rainfall region for both North & South GAP

---

(f) applies to dry crops

## IV. LAND CLASS

LC1 : Land Class 1  
LC2 : Land Class 2  
LC3 : Land Class 3  
LC4 : Land Class 4  
LC0 : All land classes

SEEDING AND HARVESTING DATES FOR THE CROPS IN THE MODEL

CODE(a)	CROP	NORTH GAP(b)		SOUTH GAP	
		S.D.	H.D.	S.D.	H.D.
<b>CEREALS</b>					
BR1I	BARLEY	07.11	15.06	20.11	27.05
BR2I	BARLEY	23.10	05.06	26.10	15.05
BRLD	BARLEY	07.11	30.05	10.11	12.05
CG1I	CORN-GRAIN	01.07	30.10	01.07	11.10
CG2I	CORN-GRAIN	01.04	13.08	15.03	01.08
CG3I	CORN-GRAIN	15.05	07.09	01.05	22.08
CW1I	COMMON-WHEA	07.11	24.06	10.11	10.06
CW2I	COMMON-WHEA	23.10	15.06	-	-
CW3I	COMMON-WHEA	-	-	26.10	01.06
CWHD	COMMON-WHEA	07.11	15.06	10.11	27.05
DW1I	DURUM-WHEAT	07.11	24.06	10.11	10.06
DW2I	DURUM-WHEAT	23.10	15.06	-	-
DW3I	DURUM-WHEAT	-	-	26.10	01.06
DWHD	DURUM-WHEAT	07.11	15.06	10.11	27.05
RICI	RICE	20.05	10.10	01.05	10.09
RYED	RYE				
<b>PULSES</b>					
CH1I	CHICKPEA	15.11	05.07	20.11	12.06
CH2I	CHICKPEA	01.11	28.06	05.11	05.06
CH3I	CHICKPEA	30.11	13.07	05.12	18.06
CHCD	CHICKPEA	15.11	15.06	20.11	28.05
DBNI	DRYBEAN	05.04	12.07	-	-
LNTD	LENTIL	03.11	19.05	15.11	10.05
LNTI	LENTIL	03.11	11.06	15.11	24.05
<b>OILSEEDS</b>					
GN1I	GROUNDNUT	01.04	20.08	20.06	20.10
GN2I	GROUNDNUT	15.05	20.09	01.05	28.08
SB1I	SOYABEAN	01.07	30.10	01.07	11.10
SB2I	SOYABEAN	01.04	13.08	15.03	01.08
SB3I	SOYABEAN	15.05	07.09	01.05	22.08
SESD	SESAME	01.04	20.08	15.03	04.08
SN1I	SUNFLOWER	01.04	15.09	19.03	26.08
SN2I	SUNFLOWER	16.04	22.09	01.04	03.09
SN3I	SUNFLOWER	-	-	16.04	09.09
SNFD	SUNFLOWER	01.04	20.08	15.03	04.08
<b>INDUSTRIA CROPS</b>					
CT1I	COTTON	25.04	30.10	10.04	24.09
CT2I	COTTON	-	-	22.04	05.10
CT3I	COTTON	-	-	06.05	17.10
SBTI	SUGARBEET	01.04	10.10	15.03	10.09
TOBD	TOBACCO	25.04	15.09	15.04	01.09
<b>TUBER CR</b>					
PTEI	EARLY-POTATO	23.03	15.06	15.03	03.06
PTLI	LATE-POTATO	23.03	15.07	15.03	03.07
ON1I	ONION-WINTER	09.09	18.07	19.09	23.06
ON2I	ONION-WINTER	24.08	03.07	04.09	06.06
ON3I	ONION-WINTER	24.09	30.07	04.10	05.07

SEEDING AND HARVESTING DATES FOR THE CROPS IN THE MODEL

CODE(a)	CROP	NORTH GAP(b)		SOUTH GAP	
		S.D.	H.D.	S.D.	H.D.
ONSI	ONION-SPRING	15.03	12.08	06.03	22.07

**VEGETABLE**

CASI	CARROT-SPRIN	17.03	20.07	07.03	03.07
CAWI	CARROT-WINTE	09.09	03.05	19.09	20.04
CB1I	CABBAGE	15.08	25.02	23.08	07.01
CB2I	CABBAGE	01.08	01.12	08.08	15.11
CB3I	CABBAGE	01.09	15.04	08.09	10.03
CC1I	CUCUMBER	05.05	23.09	15.04	26.08
CC2I	CUCUMBER	20.05	06.10	01.05	05.09
CLFI	CAULIFLOWER	15.07	02.01	26.07	17.12
CTOI	CON-TOMATO				
FTOI	FRESH-TOMATO				
EG1I	EGGPLANT	01.04	17.10	15.03	04.10
EG2I	EGGPLANT	15.04	30.10	01.04	12.10
LEKI	LEEK	15.07	06.12	25.07	04.12
LT1I	LETTUCE	15.10	15.04	01.11	05.04
LT2I	LETTUCE	01.10	23.03	15.10	14.03
LT3I	LETTUCE	01.11	01.05	15.11	18.04
MELD	MELON	03.05	26.08	13.04	09.08
MELI	MELON	03.05	12.09	13.04	25.08
OKRI	OKRA	05.05	20.12	15.04	22.10
PP1I	PEPPER	05.05	03.11	20.04	01.10
PP2I	PEPPER	20.05	25.11	05.05	25.10
SP1I	SPINACH-WINTE	20.09	16.12	03.10	04.12
SP2I	SPINACH-WINTE	05.09	19.10	18.09	04.11
SP3I	SPINACH-WINTE	05.10	18.02	18.10	10.01
SPSI	SPINACH-SPRIN	17.03	20.05	07.03	26.04
SQAI	SQUASH	05.05	10.08	15.04	20.07
WMLD	WATER-MELON	01.05	05.08	18.04	22.07
WMLI	WATER-MELON	01.05	22.08	18.04	08.08

**FEED CROP**

ALFI	ALFALFA	23.02		01.02	
CS1I	CORN-SILAGE	01.07	17.10	01.07	04.10
CS2I	CORN-SILAGE	01.04	07.08	15.03	24.07
CS3I	CORN-SILAGE	15.05	30.08	01.05	15.08
SG1I	SORGHUM-GRAI	01.07	10.12	01.07	01.11
SG2I	SORGHUM-GRAI	01.04	26.08	15.03	13.08
SG3I	SORGHUM-GRAI	15.05	24.09	01.05	04.09
SS1I	SORGHUM-SILA	01.07	17.10	01.07	10.10
SS2I	SORGHUM-SILA	01.04	07.08	15.03	01.08
SS3I	SORGHUM-SILA	15.05	30.08	01.05	22.08
VCFD	VETCH-FODDER	23.02	23.05	01.02	05.05
VCGD	VETCH-GRAIN	23.02	05.07	01.02	17.06

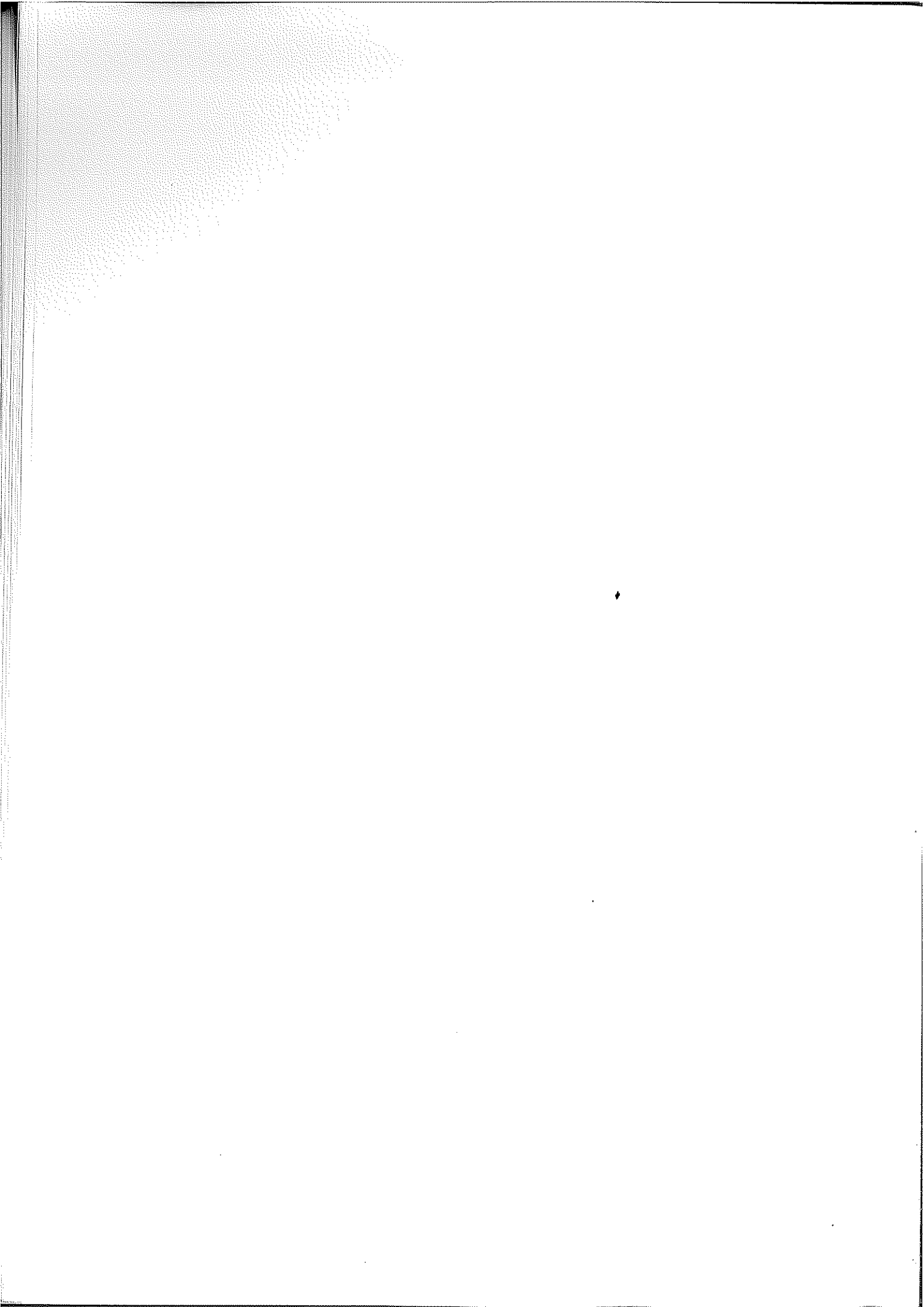
(a) The numbers in the crop codes (1,2 and 3) stand for alternative seeding and harvesting dates.

(b) S.D. : Seeding Date  
H.D. : Harvesting Date



**APPENDIX E 1:**

**MONTHLY LAND COEFFICIENTS**



# MONTHLY LAND COEFFICIENTS

(Monthly Utilization Rate/ha)

	TG01	TG02	TG03	TG04	TG05	TG06	TG07	TG08	TG09	TG10	TG11	TG12
ALFI.C11.LC0.000	1	1	1	1	1	1	1	1	1	1	1	1
BR1I.C11.LC0.N00	1	1	1	1	1	0.51					1	1
BR1I.C11.LC0.S00	1	1	1	1	1						1	1
BR2I.C11.LC0.N00	1	1	1	1	1	0.26				0.49	1	1
BR2I.C11.LC0.S00	1	1	1	1	0.76					0.49	1	1
BRLD.C11.LC0.000	1	1	1	1	1						1	1
CASI.C11.LC0.N00			0.74	1	1	1	0.76					
CASI.C11.LC0.S00		0.24	1	1	1	1						
CAWI.C11.LC0.N00	1	1	1	0.26					1	1	1	1
CAWI.C11.LC0.S00	1	1	1	0.76					0.49	1	1	1
CB1I.C11.LC0.N00	1	0.75						0.74	1	1	1	1
CB1I.C11.LC0.S00	0.26							0.24	1	1	1	1
CB2I.C11.LC0.N00							0.24	1	1	1	1	0.26
CB2I.C11.LC0.S00								1	1	1	0.76	
CB3I.C11.LC0.N00	1	1	1	0.76				0.24	1	1	1	1
CB3I.C11.LC0.S00	1	1	1	0.51					1	1	1	1
CC1I.C11.LC0.N00					1	1	1	1	0.76			
CC1I.C11.LC0.S00				0.74	1	1	1	0.76				
CC2I.C11.LC0.N00					0.74	1	1	1	1	0.26		
CC2I.C11.LC0.S00				0.24	1	1	1	1	0.26			
CG1I.C11.LC0.N00						0.24	1	1	1	0.76		
CG1I.C11.LC0.S00							1	1	1	0.51		
CG2I.C11.LC0.N00			0.24	1	1	1	1	0.51				
CG2I.C11.LC0.S00			1	1	1	1	1	0.26				
CG3I.C11.LC0.N00					1	1	1	1	0.26			
CG3I.C11.LC0.S00				0.24	1	1	1	1				
CH1I.C11.LC0.N00	1	1	1	1	1	1	0.26				0.74	1
CH1I.C11.LC0.S00	1	1	1	1	1	0.51					0.49	1
CH2I.C11.LC0.N00	1	1	1	1	1	1				0.24	1	1
CH2I.C11.LC0.S00	1	1	1	1	1	0.26				0.24	1	1
CH3I.C11.LC0.N00	1	1	1	1	1	1	0.51				0.49	1
CH3I.C11.LC0.S00	1	1	1	1	1	0.76					0.24	1
CHCD.C11.LC0.N00	1	1	1	1	1	0.51					0.74	1
CHCD.C11.LC0.S00	1	1	1	1	1						0.49	1
CLFI.C11.LC0.N00						0.49	1	1	1	1	1	1
CLFI.C11.LC0.S00						0.24	1	1	1	1	1	0.51
CS1I.C11.LC0.N00						0.24	1	1	1	0.51		
CS1I.C11.LC0.S00						0.24	1	1	1	0.26		
CS2I.C11.LC0.N00			0.24	1	1	1	1	0.26				
CS2I.C11.LC0.S00			0.74	1	1	1	0.76					
CS3I.C11.LC0.N00					0.74	1	1	1				
CS3I.C11.LC0.S00				0.24	1	1	1	0.51				
CT1I.C11.LC0.N00				0.49	1	1	1	1	1	1		
CT1I.C11.LC0.S00				1	1	1	1	1	0.76			
CT2I.C11.LC0.S00				0.74	1	1	1	1	1	0.26		
CT3I.C11.LC0.S00					1	1	1	1	1	0.76		
CTOI.C11.LC0.N00			0.24	1	1	1	1	1	1	0.51		
CTOI.C11.LC0.S00			0.74	1	1	1	1	1	1	0.26		

# MONTHLY LAND COEFFICIENTS

(Monthly Utilization Rate/ha)

	TG01	TG02	TG03	TG04	TG05	TG06	TG07	TG08	TG09	TG10	TG11	TG12
CW1I.C11.LC0.N00	1	1	1	1	1	1					1	1
CW1I.C11.LC0.S00	1	1	1	1	1	0.51					1	1
CW2I.C11.LC0.N00	1	1	1	1	1	0.76				0.24	1	1
CW3I.C11.LC0.S00	1	1	1	1	1	0.26				0.24	1	1
CWHD.C11.LC0.N00	1	1	1	1	1	0.51				0.24	1	1
CWHD.C11.LC0.S00	1	1	1	1	1	0.51				0.24	1	1
DBNI.C11.LC0.N00			0.24	1	1	1	0.51					
DW1I.C11.LC0.N00	1	1	1	1	1	1					1	1
DW1I.C11.LC0.S00	1	1	1	1	1	0.51					1	1
DW2I.C11.LC0.N00	1	1	1	1	1	0.76				0.24	1	1
DW3I.C11.LC0.S00	1	1	1	1	1	0.26				0.24	1	1
DWHD.C11.LC0.N00	1	1	1	1	1	0.51				0.24	1	1
DWHD.C11.LC0.S00	1	1	1	1	1	0.26				0.24	1	1
EG1I.C11.LC0.N00			0.24	1	1	1	1	1	1	0.51		
EG1I.C11.LC0.S00			0.74	1	1	1	1	1	1	0.26		
EG2I.C11.LC0.N00				0.74	1	1	1	1	1	0.26		
EG2I.C11.LC0.S00			0.24	1	1	1	1	1	0.51			
FTOI.C11.LC0.N00			0.24	1	1	1	1	1	1	0.51		
FTOI.C11.LC0.S00			0.74	1	1	1	1	1	1	0.26		
GN1I.C11.LC0.N00			0.24	1	1	1	1	0.76				
GN1I.C11.LC0.S00						0.49	1	1	1	0.76		
GN2I.C11.LC0.N00					0.49	1	1	1	0.76			
GN2I.C11.LC0.S00			0.24	1	1	1	1					
LEKI.C11.LC0.N00							0.74	1	1	1	1	0.26
LEKI.C11.LC0.S00							0.49	1	1	1	1	0.26
LNFD.C11.LC0.N00	1	1	1	1	0.76					0.24	1	1
LNFD.C11.LC0.S00	1	1	1	1	0.26						0.74	1
LNFI.C11.LC0.N00	1	1	1	1	1	0.26				0.24	1	1
LNFI.C11.LC0.S00	1	1	1	1	0.76						0.74	1
LT1I.C11.LC0.N00	1	1	1	0.51						0.74	1	1
LT1I.C11.LC0.S00	1	1	1	0.26						0.24	1	1
LT2I.C11.LC0.N00	1	1	1						0.24	1	1	1
LT2I.C11.LC0.S00	1	1	0.51							0.74	1	1
LT3I.C11.LC0.N00	1	1	1	1	0.26					0.24	1	1
LT3I.C11.LC0.S00	1	1	1	0.76							1	1
MELD.C11.LC0.N00				0.24	1	1	1	1	0.26			
MELD.C11.LC0.S00				0.74	1	1	1	0.76				
MELI.C11.LC0.N00				0.24	1	1	1	1	0.51			
MELI.C11.LC0.S00				0.74	1	1	1	0.76				
OKRI.C11.LC0.S00			0.24	1	1	1	1	1	1	0.76		
ON1I.C11.LC0.N00	1	1	1	1	1	1	1	0.49	1	1	1	1
ON1I.C11.LC0.S00	1	1	1	1	1	0.76			0.51	1	1	1
ON2I.C11.LC0.N00	1	1	1	1	1	1	0.26	0.49	1	1	1	1
ON2I.C11.LC0.S00	1	1	1	1	1	0.26		0.24	1	1	1	1
ON3I.C11.LC0.N00	1	1	1	1	1	1	1		0.49	1	1	1
ON3I.C11.LC0.S00	1	1	1	1	1	1	0.26		0.24	1	1	1
ONSI.C11.LC0.N00			0.74	1	1	1	1	0.51				
ONSI.C11.LC0.S00		0.24	1	1	1	1	0.76					

# MONTHLY LAND COEFFICIENTS

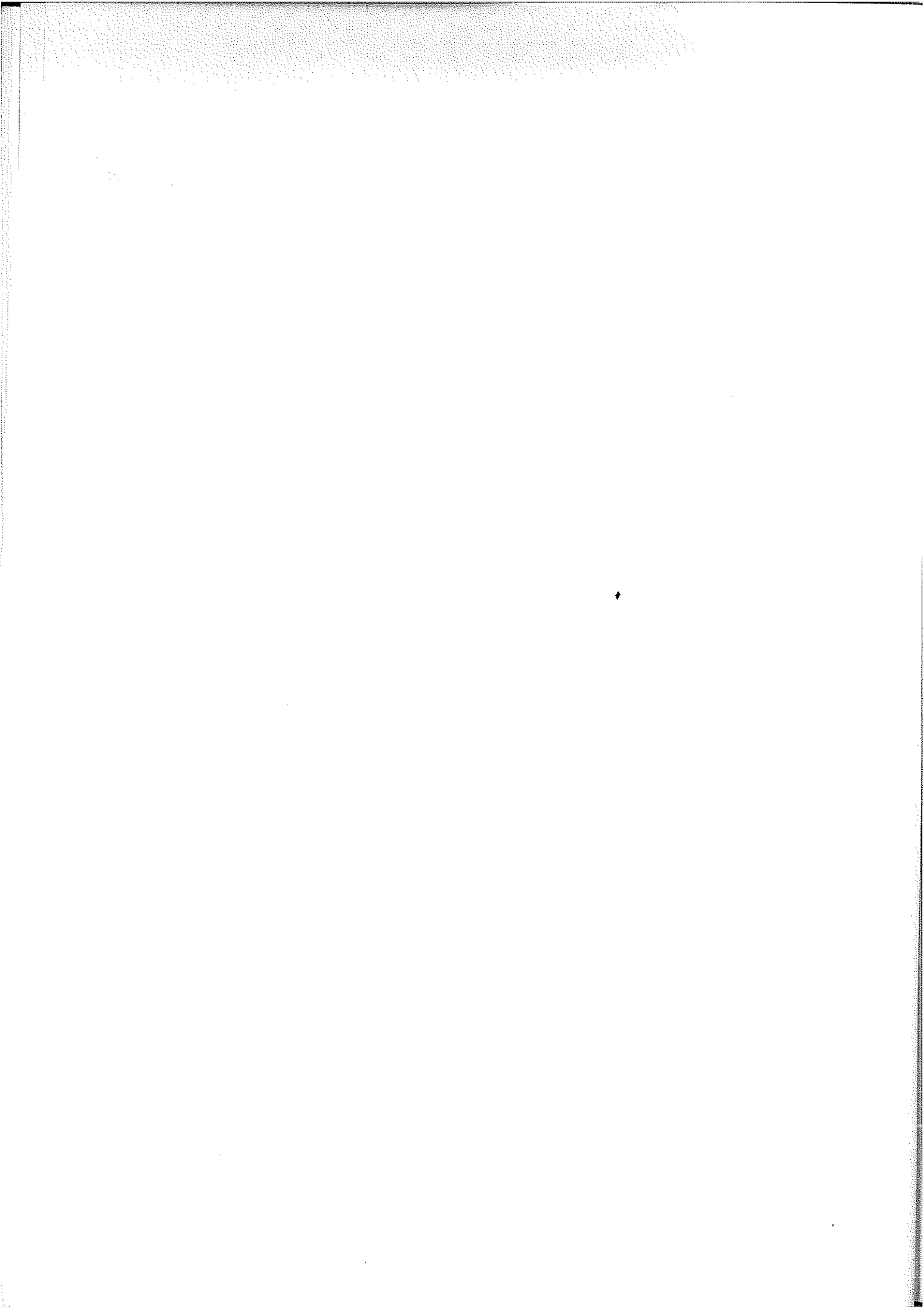
(Monthly Utilization Rate/ha)

TG01 TG02 TG03 TG04 TG05 TG06 TG07 TG08 TG09 TG10 TG11 TG12

PF1I.C11.LCO.NOO					1	1	1	1	1	1	0.26	
PF1I.C11.LCO.SOO			0.49		1	1	1	1	1	1	0.26	
PF2I.C11.LCO.NOO					0.74	1	1	1	1	1	1	
PF2I.C11.LCO.SOO			0.24		1	1	1	1	1	1	1	
PTEI.C11.LCO.NOO			0.49		1	1	1	0.51				
PTEI.C11.LCO.SOO			0.74		1	1	1	0.26				
PTLI.C11.LCO.NOO			0.49		1	1	1	1	0.26			
PTLI.C11.LCO.SOO			0.74		1	1	1	0.76				
RICI.C11.LCO.NOO					0.49	1	1	1	1	0.26		
RICI.C11.LCO.SOO			0.24		1	1	1	1	0.26			
RYED.C11.LCO.OOO	1	1	1	1	1	1	1				1	1
SB1I.C11.LCO.NOO						0.24	1	1	1	0.76		
SB1I.C11.LCO.SOO						0.24	1	1	1	0.51		
SB2I.C11.LCO.NOO			0.24		1	1	1	0.51				
SB2I.C11.LCO.SOO			0.74		1	1	1	0.26				
SB3I.C11.LCO.NOO					0.74	1	1	1	0.26			
SB3I.C11.LCO.SOO			0.24		1	1	1	0.76				
SBTI.C11.LCO.NOO			0.24		1	1	1	1	1	0.26		
SBTI.C11.LCO.SOO			0.74		1	1	1	1	0.26			
SESD.C11.LCO.NOO			0.24		1	1	1	0.76				
SESD.C11.LCO.SOO			0.74		1	1	1	0.26				
SG1I.C11.LCO.NOO						0.24	1	1	1	1	1	0.26
SG1I.C11.LCO.SOO						0.24	1	1	1	1	0.26	
SG2I.C11.LCO.NOO			0.24		1	1	1	1				
SG2I.C11.LCO.SOO			0.74		1	1	1	0.51				
SG3I.C11.LCO.NOO					0.74	1	1	1	1			
SG3I.C11.LCO.SOO			0.24		1	1	1	1	0.26			
SN1I.C11.LCO.NOO			0.24		1	1	1	1	0.51			
SN1I.C11.LCO.SOO			0.74		1	1	1	0.76				
SN2I.C11.LCO.NOO			0.74		1	1	1	1	1			
SN2I.C11.LCO.SOO			0.24		1	1	1	1	0.26			
SN3I.C11.LCO.SOO			0.74		1	1	1	1	0.51			
SNFD.C11.LCO.NOO			0.24		1	1	1	1	0.51			
SNFD.C11.LCO.SOO			0.74		1	1	1	0.26				
SP1I.C11.LCO.NOO								0.49	1	1	0.51	
SP1I.C11.LCO.SOO								0.24	1	1	0.26	
SP2I.C11.LCO.NOO							0.24	1	0.76			
SP2I.C11.LCO.SOO								0.74	1	0.26		
SP3I.C11.LCO.NOO	1	0.76						0.24	1	1	1	
SP3I.C11.LCO.SOO	0.51								0.74	1	1	
SPSI.C11.LCO.NOO			0.49		1	0.76						
SPSI.C11.LCO.SOO			1		0.76							
SQAI.C11.LCO.NOO			0.24		1	1	1	0.26				
SQAI.C11.LCO.SOO			0.74		1	1	0.76					
SS1I.C11.LCO.NOO					0.24	1	1	1	0.51			
SS1I.C11.LCO.SOO					0.24	1	1	1	0.26			
SS2I.C11.LCO.NOO			0.24		1	1	1	0.26				
SS2I.C11.LCO.SOO			0.74		1	1	1	0.26				



**APPENDIX E 2:**  
**MONTHLY LABOUR COEFFICIENTS**  
**(HRS PER DECAR)**





# LABOR COEFFICIENTS

Manhours per decar and month

	LG01	LG02	LG03	LG04	LG05	LG06	LG07	LG08	LG09	LG10	LG11	LG12
ALFI.C11.LC1.N00		0.77		5.36	4.50	7.50	10.50	10.50	4.50	1.50	0.86	
ALFI.C11.LC1.S00		0.77		5.36	4.50	7.50	10.50	10.50	4.77	4.50	0.86	
ALFI.C11.LC2.N00		0.84		5.71	4.77	7.77	11.04	11.04	4.77	1.50	0.94	
ALFI.C11.LC2.S00		0.84		5.71	4.77	7.77	11.04	11.04	4.77	4.77	0.94	
ALFI.C11.LC3.N00		0.91		6.05	5.04	8.04	11.58	11.58	5.04	1.50	1.01	
ALFI.C11.LC3.S00		0.91		6.05	5.04	8.04	11.58	11.58	5.04	4.77	1.01	
BR1I.C11.LC1.N00		0.16	1.00	1.00	1.00	1.26					0.60	
BR1I.C11.LC1.S00		1.15	1.00	1.00	1.26						0.60	
BR1I.C11.LC2.N00		0.17	1.00	1.00	1.00	1.29					0.65	
BR1I.C11.LC2.S00		1.17	1.00	1.00	1.29						0.65	
BR1I.C11.LC3.N00		0.19	1.00	1.00	1.00	1.31					0.70	
BR1I.C11.LC3.S00		1.18	1.00	1.00	1.31						0.70	
BR2I.C11.LC1.N00		0.16	1.00	1.00	1.00	1.26				1.77		
BR2I.C11.LC1.S00		1.15	1.00	1.00	1.26					2.76		
BR2I.C11.LC2.N00		0.17	1.00	1.00	1.00	1.28				1.92		
BR2I.C11.LC2.S00		1.17	1.00	1.00	1.28					2.92		
BR2I.C11.LC3.N00		0.19	1.00	1.00	1.00	1.31				2.08		
BR2I.C11.LC3.S00		1.18	1.00	1.00	1.31					3.08		
BRLD.C11.LC1.000		0.24			0.37							2.47
BRLD.C11.LC2.000		0.26			0.40							2.69
BRLD.C11.LC3.000		0.28			0.44							2.91
BRLD.C11.LC4.000		0.30			0.47							3.14
CASI.C11.LC1.N00			13.00	12.66	11.50	4.50	18.00					
CASI.C11.LC1.S00		1.78	12.72	12.66	11.50	19.50	1.17					
CASI.C11.LC2.N00			14.17	13.66	12.40	4.50	19.35					
CASI.C11.LC2.S00		1.94	13.73	13.66	12.40	20.85	1.28					
CASI.C11.LC3.N00			15.34	14.67	13.30	4.50	20.70					
CASI.C11.LC3.S00		2.10	14.74	14.67	13.30	22.20	1.38					
CAWI.C11.LC1.N00		0.60	13.00	16.50	1.50				13.90	2.66	11.50	
CAWI.C11.LC1.S00		2.10	13.00	16.50					13.90	2.66	11.50	
CAWI.C11.LC2.N00		0.65	14.04	17.85	1.50				15.02	2.76	12.40	
CAWI.C11.LC2.S00		2.15	14.04	17.85					15.02	2.76	12.40	
CAWI.C11.LC3.N00		0.71	15.07	19.20	1.50				16.13	2.87	13.30	
CAWI.C11.LC3.S00		2.21	15.07	19.20					16.13	2.87	13.30	
CB1I.C11.LC1.N00		25.00						15.40	2.10	2.10	1.50	
CB1I.C11.LC1.S00	25.00							13.90	2.66	2.10	1.50	
CB1I.C11.LC2.N00		27.25						16.52	2.21	2.21	1.50	
CB1I.C11.LC2.S00	27.25							15.02	2.76	2.15	1.50	
CB1I.C11.LC3.N00		29.50						17.63	2.21	2.21	1.50	
CB1I.C11.LC3.S00	29.50							16.13	2.87	2.21	1.50	
CB2I.C11.LC1.N00								16.90	2.66	2.10	1.50	25.00
CB2I.C11.LC1.S00								16.90	2.66	2.10	27.50	
CB2I.C11.LC2.N00								18.02	2.76	2.15	1.50	27.25
CB2I.C11.LC2.S00								18.02	2.76	2.15	29.84	
CB2I.C11.LC3.N00								19.13	2.87	2.21	1.50	29.50
CB2I.C11.LC3.S00								19.13	2.87	2.21	32.18	
CB3I.C11.LC1.N00			26.50	1.50					13.90	2.66	2.10	
CB3I.C11.LC1.S00		1.50	26.50						13.90	2.66	2.10	
CB3I.C11.LC2.N00		28.75	1.50					15.02	2.76	2.15		
CB3I.C11.LC2.S00		1.50	28.75						15.02	2.76	2.15	
CB3I.C11.LC3.N00			31.00	1.50					16.13	2.87	2.21	
CB3I.C11.LC3.S00		1.50	31.00						16.13	2.87	2.21	
CC1I.C11.LC1.N00					24.32	6.66	23.10	22.50	19.50			
CC1I.C11.LC1.S00				13.16	2.10	33.10	33.10	21.00				
CC1I.C11.LC2.N00					26.35	6.85	24.77	24.12	21.12			
CC1I.C11.LC2.S00			14.21	2.15	35.67	35.67	22.62					
CC1I.C11.LC3.N00					28.43	7.05	26.45	25.74	22.74			

LABOR COEFFICIENTS

Manhours per decar and month

	LG01	LG02	LG03	LG04	LG05	LG06	LG07	LG08	LG09	LG10	LG11	LG12
CC1I.C11.LC3.S00				15.26	2.21	38.25	38.25	24.24				
CC2I.C11.LC1.N00					24.32	15.66	23.10	22.50	1.50	19.50		
CC2I.C11.LC1.S00					14.32	33.66	33.10	4.50	19.50			
CC2I.C11.LC2.N00					26.37	16.66	24.77	24.12	1.50	21.12		
CC2I.C11.LC2.S00					15.47	36.28	35.67	4.50	21.12			
CC2I.C11.LC3.N00					28.43	17.67	26.45	25.74	1.50	22.74		
CC2I.C11.LC3.S00					16.63	38.91	38.25	4.50	22.74			
CG1I.C11.LC1.N00						0.44	11.59	20.04	0.99	12.93		
CG1I.C11.LC1.S00							11.59	20.04	0.99	12.93		
CG1I.C11.LC2.N00						0.48	12.36	21.58	0.99	14.00		
CG1I.C11.LC2.S00							12.36	21.58	0.99	14.00		
CG1I.C11.LC3.N00						0.52	13.13	23.11	0.99	15.07		
CG1I.C11.LC3.S00							13.13	23.11	0.99	15.07		
CG2I.C11.LC1.N00			0.44	9.60	18.06	2.98	2.98	13.92				
CG2I.C11.LC1.S00		10.04	18.06	0.99	2.98	2.98	2.98	12.93				
CG2I.C11.LC2.N00		0.48	10.37	19.59	2.98	2.98	2.98	14.99				
CG2I.C11.LC2.S00		10.86	19.59	0.99	2.98	2.98	2.98	14.00				
CG2I.C11.LC3.N00		0.52	11.15	21.13	2.98	2.98	2.98	16.07				
CG2I.C11.LC3.S00		11.67	21.13	0.99	2.98	2.98	2.98	15.07				
CG3I.C11.LC1.N00				9.60	20.04	2.98	2.98	12.93				
CG3I.C11.LC1.S00			0.44	9.60	20.04	2.98	2.98	14.91				
CG3I.C11.LC2.N00				10.37	21.58	2.98	2.98	14.00				
CG3I.C11.LC2.S00			0.48	10.37	21.58	2.98	2.98	15.99				
CG3I.C11.LC3.N00				11.15	23.11	2.98	2.98	15.07				
CG3I.C11.LC3.S00			0.52	11.15	23.11	2.98	2.98	17.06				
CH1I.C11.LC1.N00			1.74	1.50	1.50	4.50	13.00				1.17	
CH1I.C11.LC1.S00	1.50	1.74	1.50	1.50	1.50	13.00					1.17	
CH1I.C11.LC2.N00		1.76	1.50	1.50	1.50	4.50	14.04				1.28	
CH1I.C11.LC2.S00	1.50	1.76	1.50	1.50	1.50	14.04					1.28	
CH1I.C11.LC3.N00		1.78	1.50	1.50	1.50	4.50	15.07				1.38	
CH1I.C11.LC3.S00	1.50	1.78	1.50	1.50	1.50	15.07					1.38	
CH2I.C11.LC1.N00		1.74	1.50	1.50	1.50	16.00			1.50	2.67		
CH2I.C11.LC1.S00	1.50	1.74	1.50	1.50	1.50	13.00				2.67		
CH2I.C11.LC2.N00		1.76	1.50	1.50	1.50	17.04			1.50	2.78		
CH2I.C11.LC2.S00	1.50	1.76	1.50	1.50	1.50	14.04				2.78		
CH2I.C11.LC3.N00		1.78	1.50	1.50	1.50	18.07			1.50	2.88		
CH2I.C11.LC3.S00	1.50	1.78	1.50	1.50	1.50	15.07				2.88		
CH3I.C11.LC1.N00		1.74	1.50	1.50	1.50	4.50	14.50				1.17	
CH3I.C11.LC1.S00	1.50	1.74	1.50	1.50	1.50	16.00	3.00				1.17	
CH3I.C11.LC2.N00		1.76	1.50	1.50	1.50	4.50	15.54				1.28	
CH3I.C11.LC2.S00	1.50	1.76	1.50	1.50	1.50	17.04	3.00				1.28	
CH3I.C11.LC3.N00		1.78	1.50	1.50	1.50	4.50	16.57				1.38	
CH3I.C11.LC3.S00	1.50	1.78	1.50	1.50	1.50	18.07	3.00				1.38	
CHCD.C11.LC1.NHR			0.24			10.00					1.17	
CHCD.C11.LC1.SLR			0.24		10.00						1.17	
CHCD.C11.LC2.NHR			0.26			10.90					1.28	
CHCD.C11.LC2.SLR			0.26		10.90						1.28	
CHCD.C11.LC3.NHR			0.28			11.80					1.38	
CHCD.C11.LC3.SLR			0.28		11.80						1.38	
CHCD.C11.LC4.NHR			0.30			12.70					1.49	
CHCD.C11.LC4.SLR			0.30		12.70						1.49	
CLFI.C11.LC1.N00						40.16	16.35	12.58	9.72	1.20	1.20	
CLFI.C11.LC1.S00						40.16	15.15	12.58	9.72	1.20	1.20	
CLFI.C11.LC2.N00						43.78	17.61	13.39	10.49	1.20	1.20	
CLFI.C11.LC2.S00						43.78	16.40	13.39	10.49	1.20	1.20	
CLFI.C11.LC3.N00						47.39	18.86	14.19	11.25	1.20	1.20	
CLFI.C11.LC3.S00						47.39	17.66	14.19	11.25	1.20	1.20	

# LABOR COEFFICIENTS

Manhours per decar and month

	LG01	LG02	LG03	LG04	LG05	LG06	LG07	LG08	LG09	LG10	LG11	LG12
CS1I.C11.LC1.N00						0.59	17.98	30.50	3.95	46.97		
CS1I.C11.LC1.S00						0.59	17.98	30.50	3.95	46.97		
CS1I.C11.LC2.N00						0.64	19.24	32.89	4.19	51.08		
CS1I.C11.LC2.S00						0.64	19.24	32.89	4.19	51.08		
CS1I.C11.LC3.N00						0.69	20.51	35.28	4.42	55.19		
CS1I.C11.LC3.S00						0.69	20.51	35.28	4.42	55.19		
CS2I.C11.LC1.N00			0.59	12.71	23.92	3.95	3.95	46.97				
CS2I.C11.LC1.S00			13.30	23.92	1.32	3.95	49.60					
CS2I.C11.LC2.N00			0.64	13.74	25.95	3.95	3.95	51.08				
CS2I.C11.LC2.S00			14.38	25.95	1.32	3.95	53.71					
CS2I.C11.LC3.N00			0.69	14.76	27.98	3.95	3.95	55.19				
CS2I.C11.LC3.S00			15.46	27.98	1.32	3.95	57.82					
CS3I.C11.LC1.N00				0.59	12.71	26.55	3.95	49.60	1.32			
CS3I.C11.LC1.S00				0.59	12.71	26.55	3.95	48.29				
CS3I.C11.LC2.N00				0.64	13.74	28.58	3.95	53.71	1.32			
CS3I.C11.LC2.S00				0.64	13.74	28.58	3.95	52.40				
CS3I.C11.LC3.N00				0.69	14.76	30.62	3.95	57.82	1.32			
CS3I.C11.LC3.S00				0.69	14.76	30.62	3.95	56.51				
CT1I.C11.LC1.N00				2.89	16.41	20.20	7.39	7.31	2.86	40.77		
CT1I.C11.LC1.S00				2.89	16.41	20.20	7.39	7.31	40.77			
CT1I.C11.LC2.N00				1.56	18.32	21.76	7.80	7.71	1.56	42.88		
CT1I.C11.LC2.S00				1.56	18.32	21.76	7.80	7.71	44.44			
CT2I.C11.LC1.S00				2.57	21.19	18.77	4.53	4.45	1.43	40.77		
CT2I.C11.LC2.S00				2.67	22.96	20.07	4.55	4.46	1.43	44.31		
CT3I.C11.LC1.S00					2.57	24.05	18.77	4.53	1.58	40.77		
CT3I.C11.LC2.S00					2.67	25.83	20.07	4.55	1.60	44.31		
CTOI.C11.LC1.N00			18.44	27.82	28.23	16.65	17.52	16.13	13.37	11.99		
CTOI.C11.LC1.S00			20.08	26.70	27.71	16.65	17.52	16.13	13.37	11.99		
CTOI.C11.LC2.N00			20.10	30.33	30.77	17.90	17.34	15.83	13.06	13.06		
CTOI.C11.LC2.S00			21.89	29.10	30.21	17.90	17.34	15.83	13.06	13.06		
CTOI.C11.LC3.N00			21.76	32.83	33.31	19.15	18.54	16.91	14.14	14.14		
CTOI.C11.LC3.S00			23.69	31.51	32.70	19.15	18.54	16.91	14.14	14.14		
CW1I.C11.LC1.N00		0.08	0.50	1.16	1.16	2.11					0.88	
CW1I.C11.LC1.S00		0.57	0.50	1.16	1.16	0.63					0.88	
CW1I.C11.LC2.N00		0.09	0.50	0.72	0.72	2.13					0.96	
CW1I.C11.LC2.S00		0.09	0.50	0.72	0.72	0.64					0.96	
CW1I.C11.LC3.N00		0.09	0.50	0.78	0.78	2.14					1.04	
CW1I.C11.LC3.S00		0.09	0.50	0.78	0.78	0.65					1.04	
CW2I.C11.LC1.N00		0.08	0.49	0.49	0.49	1.12				1.37		
CW2I.C11.LC2.N00		0.09	0.49	0.49	0.49	1.13				1.45		
CW2I.C11.LC3.N00		0.09	0.49	0.49	0.49	1.14				1.52		
CW3I.C11.LC1.S00		0.57	0.49	0.49	0.49	0.13				1.37	0.49	
CW3I.C11.LC2.S00		0.58	0.49	0.49	0.49	0.14				1.45	0.49	
CW3I.C11.LC3.S00		0.59	0.49	0.49	0.49	0.16				1.52	0.49	
CWHD.C11.LC1.000		0.24				0.37				0.67	1.80	
CWHD.C11.LC2.000		0.26				0.40				0.73	1.96	
CWHD.C11.LC3.000		0.28				0.44				0.79	2.12	
CWHD.C11.LC4.000		0.30				0.47				0.85	2.29	
DENI.C11.LC1.N00				3.87	10.50	13.50	13.00					
DENI.C11.LC2.N00				4.22	9.81	12.81	13.90					
DENI.C11.LC3.N00				4.57	10.62	13.62	14.80					
DW1I.C11.LC1.N00		0.11	0.66	0.66	0.66	2.83					0.66	
DW1I.C11.LC1.S00		0.77	0.66	0.66	0.66	0.84					0.66	
DW1I.C11.LC2.N00		0.12	0.66	0.66	0.66	2.85					0.72	
DW1I.C11.LC2.S00		0.78	0.66	0.66	0.66	0.86					0.72	
DW1I.C11.LC3.N00		0.13	0.66	0.66	0.66	2.86					0.78	
DW1I.C11.LC3.S00		0.79	0.66	0.66	0.66	0.87					0.78	

# LABOR COEFFICIENTS

Manhours per decar and month

	LG01	LG02	LG03	LG04	LG05	LG06	LG07	LG08	LG09	LG10	LG11	LG12
DW2I.C11.LC1.N00		0.11	0.66	0.66	0.66	1.50				1.84		
DW2I.C11.LC2.N00		0.12	0.66	0.66	0.66	1.52				1.95		
DW2I.C11.LC3.N00		0.13	0.66	0.66	0.66	1.54				2.05		
DW3I.C11.LC1.S00		0.77	0.66	0.66	0.66	0.18				1.84	0.66	
DW3I.C11.LC2.S00		0.78	0.66	0.66	0.66	0.19				1.95	0.66	
DW3I.C11.LC3.S00		0.79	0.66	0.66	0.66	0.21				2.05	0.66	
DWHD.C11.LC1.NHR		0.24				0.37				0.67	1.80	
DWHD.C11.LC2.NHR		0.26				0.40				0.73	1.96	
DWHD.C11.LC3.NHR		0.28				0.44				0.79	2.12	
DWHD.C11.LC4.NHR		0.30				0.47				0.85	2.29	
EG1I.C11.LC1.N00				3.28	33.72	20.66	35.60	20.60	17.00	1.50		
EG1I.C11.LC1.S00	1.78	33.72		1.50	1.50	19.16	20.10	4.50	1.50	16.10		
EG1I.C11.LC2.N00				3.44	38.25	22.11	38.40	22.05	18.40	1.50		
EG1I.C11.LC2.S00	1.94	36.75		1.50	1.50	20.61	20.00	4.50	1.50	17.55		
EG1I.C11.LC3.N00				3.60	41.29	23.57	41.20	23.50	19.79	1.50		
EG1I.C11.LC3.S00	2.10	39.79		1.50	1.50	22.07	21.41	4.50	1.50	19.00		
EG2I.C11.LC1.N00		1.78	35.22	1.50	20.66	35.60	20.60	1.50	17.00			
EG2I.C11.LC1.S00		1.78	35.22	1.50	36.16	35.60	4.50	1.50	17.60			
EG2I.C11.LC2.N00		1.94	38.25	1.50	22.11	38.40	22.59	1.50	18.40			
EG2I.C11.LC2.S00		1.94	38.25	1.50	39.01	38.40	4.50	1.50	19.05			
EG2I.C11.LC3.N00		2.10	41.29	1.50	23.57	41.20	23.50	1.50	19.79			
EG2I.C11.LC3.S00		2.10	41.29	1.50	41.86	41.20	4.50	1.50	1.50			
FTOI.C11.LC1.N00		20.00	30.18	30.62	18.06	19.00	17.50	14.50	13.00			
FTOI.C11.LC1.S00		21.78	28.96	30.06	18.06	19.00	17.50	14.50	13.00			
FTOI.C11.LC2.N00		21.80	32.90	33.38	19.42	18.81	17.17	14.17	14.17			
FTOI.C11.LC2.S00		23.74	31.57	32.77	19.42	18.81	17.17	14.17	14.17			
FTOI.C11.LC3.N00		23.60	35.61	36.13	20.77	20.11	18.34	15.34	15.34			
FTOI.C11.LC3.S00		25.70	34.17	35.47	20.77	20.11	18.34	15.34	15.34			
GN1I.C11.LC1.N00			13.08	2.00	5.10	5.10	28.00					
GN1I.C11.LC1.S00					3.15	5.10	17.10	1.50	26.50			
GN1I.C11.LC2.N00			14.26	0.55	3.65	3.65	30.25					
GN1I.C11.LC2.S00					3.30	3.65	16.73	1.50	27.25			
GN1I.C11.LC3.N00			15.43	0.59	3.71	5.21	32.50					
GN1I.C11.LC3.S00					3.45	3.71	17.87	1.50	29.50			
GN2I.C11.LC1.N00				13.08	5.00	5.10	5.10	26.50				
GN2I.C11.LC1.S00			1.50	1.65	5.10	17.10	29.50					
GN2I.C11.LC2.N00				14.26	5.05	5.15	5.15	28.75				
GN2I.C11.LC2.S00			1.50	1.80	3.65	16.73	30.25					
GN2I.C11.LC3.N00				15.43	5.09	5.21	5.21	31.00				
GN2I.C11.LC3.S00			1.50	1.95	3.71	17.87	32.50					
LEKI.C11.LC1.N00							15.40	15.66	12.10	1.50	1.50	19.00
LEKI.C11.LC1.S00							13.90	15.66	12.10	1.50	1.50	19.00
LEKI.C11.LC2.N00							16.52	16.66	13.05	1.50	1.50	20.71
LEKI.C11.LC2.S00							15.02	16.66	13.05	1.50	1.50	20.71
LEKI.C11.LC3.N00							17.63	17.67	14.01	1.50	1.50	22.42
LEKI.C11.LC3.S00							16.13	17.67	14.01	1.50	1.50	22.42
LNTD.C11.LC1.000			0.24		11.00					0.20	0.97	
LNTD.C11.LC2.000			0.26		11.99					0.22	1.06	
LNTD.C11.LC3.000			0.28		12.98					0.24	1.14	
LNTD.C11.LC4.000			0.30		13.97					0.25	1.23	
LNTI.C11.LC1.N00			3.08	6.20	6.20	27.48				0.35	4.38	
LNTI.C11.LC1.S00	2.66	3.08	6.20	28.36							0.35	1.72
LNTI.C11.LC2.N00		0.46	3.86	3.86	29.47					0.39	1.87	
LNTI.C11.LC2.S00	2.66	0.46	3.86	28.02							0.39	1.87
LNTI.C11.LC3.N00		0.50	4.18	4.18	31.47					0.42	2.03	
LNTI.C11.LC3.S00	2.66	0.50	4.18	30.33							0.42	2.03
LT1I.C11.LC1.N00	10.60	1.50	21.50							1.50	12.96	0.60

# LABOR COEFFICIENTS

Manhours per decar and month

	LG01	LG02	LG03	LG04	LG05	LG06	LG07	LG08	LG09	LG10	LG11	LG12
LT1I.C11.LC1.S00		12.10	1.50	20.00							14.46	0.60
LT1I.C11.LC2.N00		11.55	1.50	23.30						1.50	14.13	0.65
LT1I.C11.LC2.S00		13.05	1.50	21.80							15.63	0.65
LT1I.C11.LC3.N00		12.51	1.50	25.10						1.50	15.29	0.71
LT1I.C11.LC3.S00		14.01	1.50	23.60							16.79	0.71
LT2I.C11.LC1.N00		10.60	21.50	1.50						14.46	2.10	
LT2I.C11.LC1.S00		12.10	21.50							14.46	2.10	
LT2I.C11.LC2.N00		11.55	23.30	1.50						15.63	2.15	
LT2I.C11.LC2.S00		13.05	23.30							15.63	2.15	
LT2I.C11.LC3.N00		12.51	25.10	1.50						16.79	2.21	
LT2I.C11.LC3.S00		14.01	25.10							16.79	2.21	
LT3I.C11.LC1.N00		10.60	1.50	1.50	20.00						15.06	
LT3I.C11.LC1.S00		12.10	1.50	21.50							14.46	0.60
LT3I.C11.LC2.N00		11.55	1.50	1.50	21.80						16.28	
LT3I.C11.LC2.S00		13.05	1.50	23.30							15.63	0.65
LT3I.C11.LC3.N00		12.51	1.50	1.50	23.60						17.50	
LT3I.C11.LC3.S00		14.01	1.50	25.10							16.79	0.71
MELD.C11.LC1.000				0.67	0.93	8.00			7.20			
MELD.C11.LC2.000				0.73	1.01	8.72			7.85			
MELD.C11.LC3.000				0.79	1.10	9.44			8.50			
MELD.C11.LC4.000				0.85	1.18	10.16			9.14			
MELI.C11.LC1.N00				1.62	4.00	15.87	15.87	13.20	8.70			
MELI.C11.LC1.S00				2.06	5.06	15.87	21.57	11.70				
MELI.C11.LC2.N00				1.77	4.36	15.39	15.39	12.48	7.85			
MELI.C11.LC2.S00				2.25	3.88	15.39	23.24	12.48				
MELI.C11.LC3.N00				1.91	4.72	16.42	16.42	13.27	8.50			
MELI.C11.LC3.S00				2.43	4.20	16.42	24.91	13.27				
OKRI.C11.LC1.S00			14.55	1.69	10.38	12.38	4.18	4.18	1.23	17.63		
OKRI.C11.LC2.S00			15.86	1.73	11.21	13.17	4.23	4.23	1.23	19.11		
OKRI.C11.LC3.S00			17.17	1.77	12.03	13.95	4.27	4.27	1.23	20.58		
ON1I.C11.LC1.N00			12.10	12.10	1.50	4.50	53.00		18.60	2.06	1.50	
ON1I.C11.LC1.S00	1.50		12.10	12.10	1.50	53.00			18.60	2.06	1.50	
ON1I.C11.LC2.N00			13.05	13.05	1.50	4.50	57.50		20.14	2.11	1.50	
ON1I.C11.LC2.S00	1.50		13.05	13.05	1.50	57.50			20.14	2.11	1.50	
ON1I.C11.LC3.N00			14.01	14.01	1.50	4.50	62.00		21.68	2.16	1.50	
ON1I.C11.LC3.S00	1.50		14.01	14.01	1.50	62.00			21.68	2.16	1.50	
ON2I.C11.LC1.N00			12.10	12.10	1.50	4.50	51.50	20.10	1.50	2.06	1.50	
ON2I.C11.LC1.S00	1.50		12.10	12.10	1.50	51.50			18.60	2.06	1.50	
ON2I.C11.LC2.N00			13.05	13.05	1.50	4.50	56.00	21.64	1.50	2.11	1.50	
ON2I.C11.LC2.S00	1.50		13.05	13.05	1.50	56.00			20.14	2.11	1.50	
ON2I.C11.LC3.N00			14.01	14.01	1.50	4.50	60.50	23.18	1.50	2.16	1.50	
ON2I.C11.LC3.S00	1.50		14.01	14.01	1.50	56.00			21.68	2.16	1.50	
ON3I.C11.LC1.N00			12.10	12.10	1.50	4.50	54.50		18.60	2.06	1.50	
ON3I.C11.LC1.S00	1.50		12.10	12.10	1.50	4.50	51.50			18.60	2.06	
ON3I.C11.LC2.N00			13.05	13.05	1.50	4.50	59.00		20.14	2.11	1.50	
ON3I.C11.LC2.S00	1.50		13.05	13.05	1.50	4.50	56.00			20.14	2.11	
ON3I.C11.LC3.N00			14.01	14.01	1.50	4.50	63.50		21.68	2.16	1.50	
ON3I.C11.LC3.S00	1.50		14.01	14.01	1.50	4.50	56.00			21.68	2.16	
ONSI.C11.LC1.N00			19.19	13.58	2.99	16.27	5.05	59.49				
ONSI.C11.LC1.S00	2.00		18.88	13.58	2.36	16.27	59.49					
ONSI.C11.LC2.N00			20.92	14.65	3.10	17.28	5.05	64.54				
ONSI.C11.LC2.S00	2.18		20.43	14.65	2.42	17.28	64.54					
ONSI.C11.LC3.N00			34.74	23.22	4.04	25.37	5.05	104.94				
ONSI.C11.LC3.S00	3.62		32.81	23.22	2.90	25.37	104.94					
PP1I.C11.LC1.N00					3.28	4.72	12.16	32.60	22.50	22.50	22.50	
PP1I.C11.LC1.S00				19.24	2.66	34.66	34.10	25.50	1.50	21.00		
PP1I.C11.LC2.N00					1.94	4.87	12.98	35.26	22.89	22.89	22.89	

**LABOR COEFFICIENTS**

Manhours per decar and month

	LG01	LG02	LG03	LG04	LG05	LG06	LG07	LG08	LG09	LG10	LG11	LG12
PP1I.C11.LC2.S00				20.84	2.76	37.37	36.76	27.39	1.50	22.89		
PP1I.C11.LC3.N00					2.10	5.03	13.81	37.93	24.78	24.78	24.78	
PP1I.C11.LC3.S00				22.43	2.87	40.09	39.43	29.28	1.50	24.78		
PP2I.C11.LC1.N00					20.40	13.66	34.10	25.50	22.50	1.50	22.50	
PP2I.C11.LC1.S00					20.40	34.66	34.10	25.50	1.50	22.50		
PP2I.C11.LC2.N00					22.10	14.48	36.76	27.39	24.39	1.50	24.39	
PP2I.C11.LC2.S00					22.10	37.37	36.76	27.39	1.50	24.39		
PP2I.C11.LC3.N00					23.80	15.31	39.43	29.28	26.28	1.50	26.28	
PP2I.C11.LC3.S00					23.80	40.09	39.43	29.28	1.50	26.28		
PTEI.C11.LC1.N00			6.44	1.35	13.50	16.50	28.00					
PTEI.C11.LC1.S00			6.44	1.35	13.50	16.50	26.50					
PTEI.C11.LC2.N00			7.02	1.47	13.08	16.08	30.25					
PTEI.C11.LC2.S00			7.02	1.47	13.08	16.08	28.75					
PTEI.C11.LC3.N00			7.60	1.59	14.16	17.16	32.50					
PTEI.C11.LC3.S00			7.60	1.59	14.16	17.16	31.00					
PTLI.C11.LC1.N00			6.44	1.35	13.50	16.50	4.50	26.50				
PTLI.C11.LC1.S00			6.44	1.35	13.50	16.50	28.00					
PTLI.C11.LC2.N00			7.02	1.47	13.08	16.08	4.50	28.75				
PTLI.C11.LC2.S00			7.02	1.47	13.08	16.08	30.25					
PTLI.C11.LC3.N00			7.60	1.59	14.16	17.16	4.50	31.00				
PTLI.C11.LC3.S00			7.60	1.59	14.16	17.16	32.50					
RICI.C11.LC1.N00				1.50	4.48	5.70	12.50	12.50	1.50	25.00		
RICI.C11.LC1.S00				7.48	1.50	5.70	12.50	9.50	25.00			
RYED.C11.LC1.000			0.13	0.39			0.34					0.40
RYED.C11.LC2.000			0.13	0.39			0.34					0.40
RYED.C11.LC3.000			0.13	0.39			0.34					0.40
RYED.C11.LC4.000			0.13	0.39			0.34					0.40
SB1I.C11.LC1.N00						0.29	7.00	12.36	0.66	5.69		
SB1I.C11.LC1.S00						0.29	7.00	13.02	0.66	5.69		
SB1I.C11.LC2.N00						0.32	7.51	13.36	0.66	5.49		
SB1I.C11.LC2.S00						0.32	7.51	13.36	0.66	5.49		
SB1I.C11.LC3.N00						0.35	8.02	14.35	0.66	5.94		
SB1I.C11.LC3.S00						0.35	8.02	14.35	0.66	5.94		
SB2I.C11.LC1.N00			0.29	0.87	6.23	12.91	1.97	6.35				
SB2I.C11.LC1.S00			1.16	0.66	6.23	12.91	1.97	5.03				
SB2I.C11.LC2.N00			0.32	0.89	6.74	13.90	1.97	6.80				
SB2I.C11.LC2.S00			1.21	0.66	6.74	13.90	1.97	5.49				
SB2I.C11.LC3.N00			0.35	0.90	7.24	14.88	1.97	7.25				
SB2I.C11.LC3.S00			1.25	0.66	7.24	14.88	1.97	5.94				
SB3I.C11.LC1.N00				0.29	6.34	13.02	1.97	1.97	5.69			
SB3I.C11.LC1.S00				0.29	6.34	13.02	1.97	1.97	5.03			
SB3I.C11.LC2.N00				0.32	6.85	14.01	1.97	1.97	6.14			
SB3I.C11.LC2.S00				0.32	6.85	14.01	1.97	1.97	5.49			
SB3I.C11.LC3.N00				0.35	7.36	15.01	1.97	1.97	6.60			
SB3I.C11.LC3.S00				0.35	7.36	15.01	1.97	1.97	5.94			
SETI.C11.LC1.N00			0.83	1.29	1.71	18.43	18.43	18.43	1.29	45.87		
SETI.C11.LC1.S00			2.12	1.29	1.71	18.43	18.43	18.43	45.87			
SETI.C11.LC2.N00			0.91	1.29	1.75	19.74	19.74	19.74	1.29	49.88		
SETI.C11.LC2.S00			2.19	1.29	1.75	19.74	19.74	19.74	49.88			
SETI.C11.LC3.N00			0.98	1.29	1.79	21.06	21.06	21.06	1.29	53.89		
SETI.C11.LC3.S00			2.27	1.29	1.79	21.06	21.06	21.06	53.89			
SESD.C11.LC1.000			1.07		11.74		0.35					
SESD.C11.LC2.000			1.17		12.80		0.38					
SESD.C11.LC3.000			1.26		13.85		0.41					
SESD.C11.LC4.000			1.36		14.91		0.44					
SG1I.C11.LC1.N00						0.63	4.70	16.27	25.00	1.42	1.42	16.98
SG1I.C11.LC1.S00						0.63	4.70	16.27	25.00	1.42	16.98	



LABOR COEFFICIENTS

Manhours per decar and month

	LG01	LG02	LG03	LG04	LG05	LG06	LG07	LG08	LG09	LG10	LG11	LG12
SPSI.C11.LC3.N00			14.68	14.01	19.20							
SPSI.C11.LC3.S00			16.18	31.71								
SQAI.C11.LC1.N00				17.18	13.22	30.66	19.50	16.50				
SQAI.C11.LC1.S00				19.24	27.10	30.10	18.00					
SQAI.C11.LC2.N00				18.73	14.27	33.01	20.85	17.85				
SQAI.C11.LC2.S00				20.84	29.40	32.40	19.35					
SQAI.C11.LC3.N00				20.27	15.33	35.37	22.20	19.20				
SQAI.C11.LC3.S00				22.43	31.71	34.71	20.70					
SSI1.C11.LC1.N00						0.65	4.84	16.77	25.78	52.04		
SSI1.C11.LC1.S00						0.65	4.84	16.77	25.78	52.04		
SSI1.C11.LC2.N00						0.71	4.89	17.89	27.97	56.60		
SSI1.C11.LC2.S00						0.71	4.89	17.89	27.97	56.60		
SSI1.C11.LC3.N00						0.77	4.93	19.00	30.16	61.15		
SSI1.C11.LC3.S00						0.77	4.93	19.00	30.16	61.15		
SS2I.C11.LC1.N00			12.80	26.22	2.18	4.37	4.37	52.00				
SS2I.C11.LC1.S00			14.72	26.47	1.46	4.37	4.37	50.54				
SS2I.C11.LC2.N00			13.95	28.45	2.24	4.37	4.37	56.55				
SS2I.C11.LC2.S00			15.92	28.73	1.46	4.37	4.37	55.09				
SS2I.C11.LC3.N00			15.10	30.68	2.31	4.37	4.37	61.09				
SS2I.C11.LC3.S00			17.11	30.98	1.46	4.37	4.37	59.64				
SS3I.C11.LC1.N00					14.72	29.39	4.37	54.91				
SS3I.C11.LC1.S00				0.65	14.07	29.39	4.37	54.91				
SS3I.C11.LC2.N00					15.92	31.64	4.37	59.46				
SS3I.C11.LC2.S00				0.77	15.21	31.64	4.37	59.46				
SS3I.C11.LC3.N00					17.11	33.89	4.37	64.01				
SS3I.C11.LC3.S00				0.77	16.34	33.89	4.37	64.01				
TOBD.C11.LC2.000				33.60	23.22	33.97	33.97	33.60	33.60	2.69	2.69	2.69
TOBD.C11.LC3.000				36.37	25.13	36.77	36.77	36.37	36.37	2.91	2.91	2.91
TOBD.C11.LC4.000				39.14	43.32	39.57	39.57	39.14	39.14	3.13	3.13	3.13
VCFD.C11.LC1.N00		4.39	0.34		5.67							
VCFD.C11.LC1.S00		0.99	0.34		5.67							
VCFD.C11.LC2.N00		4.79	0.37		6.18							
VCFD.C11.LC2.S00		1.08	0.37		6.18							
VCFD.C11.LC3.N00		5.18	0.40		6.69							
VCFD.C11.LC3.S00		1.16	0.40		6.69							
VCFD.C11.LC4.N00		5.58	0.43		7.20							
VCFD.C11.LC4.S00		1.25	0.43		7.20							
VCGD.C11.LC1.N00		2.90	0.22				4.87					
VCGD.C11.LC1.S00	2.90	0.22				4.87						
VCGD.C11.LC2.N00		3.16	0.25				5.31					
VCGD.C11.LC2.S00	3.16	0.25				5.31						
VCGD.C11.LC3.N00		3.42	0.27				5.75					
VCGD.C11.LC3.S00	3.42	0.27				5.75						
VCGD.C11.LC4.N00		3.69	0.29				6.19					
VCGD.C11.LC4.S00	3.69	0.29				6.19						
WMLD.C11.LC1.000				0.82	0.41	4.61	0.18	7.57				
WMLD.C11.LC2.000				0.89	0.45	5.03	0.19	8.25				
WMLD.C11.LC3.000				0.97	0.49	5.44	0.21	8.93				
WMLD.C11.LC4.000				1.04	0.53	5.86	0.23	9.61				
WMLI.C11.LC1.N00			0.67	0.44	8.30	10.74	20.74	14.74				
WMLI.C11.LC1.S00			0.67	1.94	8.30	10.74	20.74	11.74				
WMLI.C11.LC2.N00			0.73	0.48	8.91	11.30	22.20	15.66				
WMLI.C11.LC2.S00			0.73	1.98	8.91	11.30	22.20	12.66				
WMLI.C11.LC3.N00			0.79	0.52	9.52	11.86	23.66	16.58				
WMLI.C11.LC3.S00			0.79	2.02	9.52	11.86	23.66	13.58				
APPI.C11.LC1.N00		0.50	10.90	2.50		5.70		19.70	24.30			



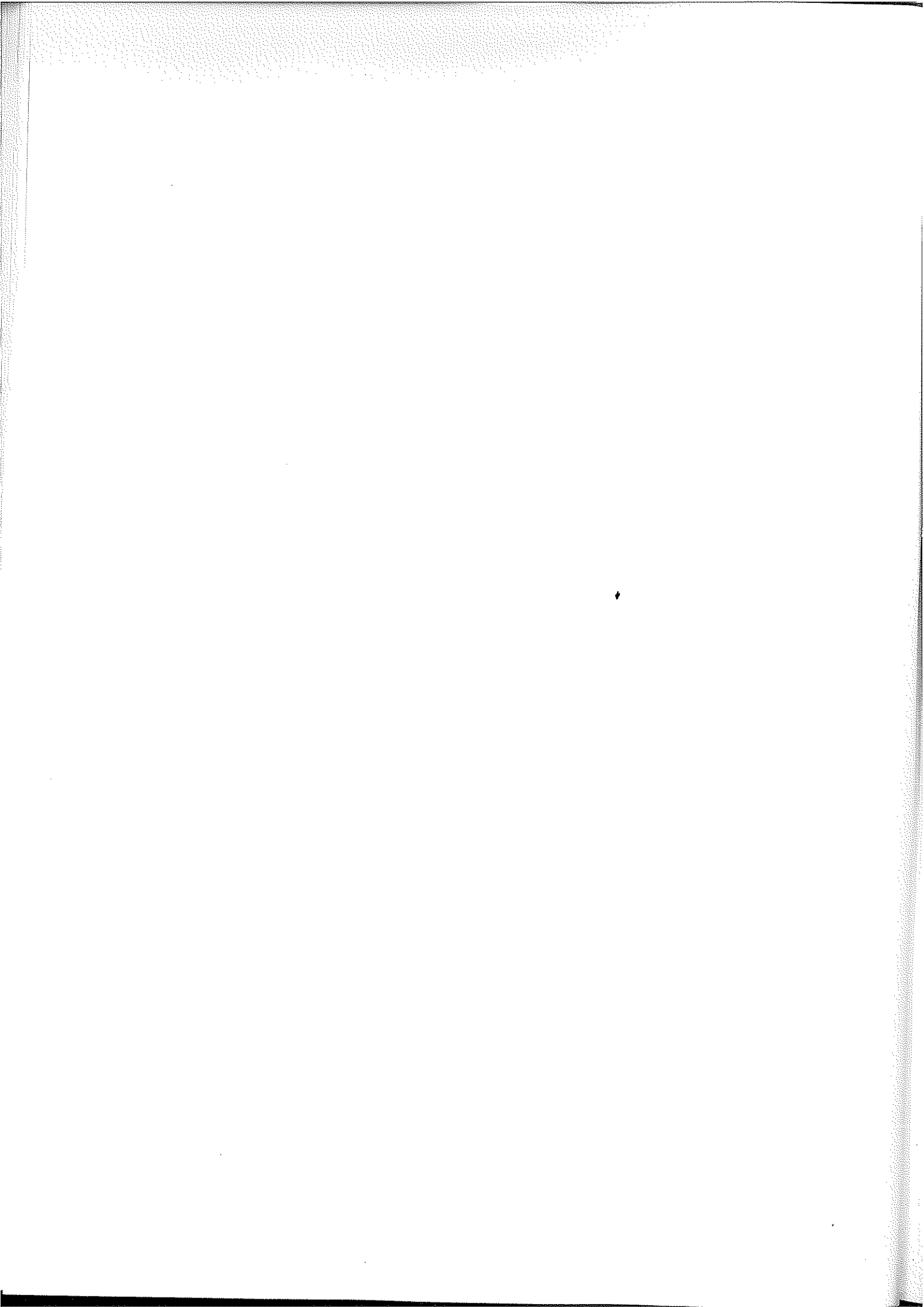
# LABOR COEFFICIENTS

Manhours per decar and month

	LG01	LG02	LG03	LG04	LG05	LG06	LG07	LG08	LG09	LG10	LG11	LG12
APRI.C11.LC1.N00	2.19	6.10	7.75	4.80	0.15	60.00	1.72		4.68			
APRI.C11.LC1.S00			10.65	6.05		16.25	19.00	5.16	3.65			
CRRI.C11.LC1.000	4.26	3.55	3.55	13.25	67.70	58.70	3.40			2.40		
FGDI.C11.LC1.000	2.75	0.38	3.05	1.33	1.85	2.44	1.60	18.75	17.60	18.61		
FGFI.C11.LC1.000	1.95	1.95	1.60	1.33	2.50	2.45	32.25	33.40		0.70		
GRSI.C11.LC1.000	10.53	2.23	4.35		5.55	3.20	4.43	37.91			9.30	9.30
GRTD.C11.LC1.NHR	6.70	21.30	9.50		14.60	2.75	35.65					
GRTD.C11.LC1.NMR	1.45	0.25	17.00	18.25	8.20	5.25	16.92	2.93	13.05	13.05		
GRTI.C11.LC1.N00		3.35	19.00	0.60	8.80	2.25		2.00	16.92	16.92		
GRTI.C11.LC1.S00	7.43	1.33	11.80		2.81	11.70	30.00	22.31			6.20	6.20
GRWD.C11.LC1.N00	1.45	0.25	17.00	18.25	8.20	5.25	16.92	2.93	13.05	13.05		
OLOD.C11.LC1.000		3.25	3.23				0.56		0.50		7.20	7.20
OLOT.C11.LC1.000		3.25	3.23				0.56		0.50		7.20	7.20
PARI.C11.LC1.000			3.00	3.30	4.00	13.90	4.00	4.00	6.85	3.40	11.80	
PCFI.C11.LC1.000	7.00	14.95	9.20	26.90	12.40	0.03	15.65	25.20	24.50	21.20		
PCPI.C11.LC1.000		9.05			8.00	8.40	35.40		37.90		4.50	
PISD.C11.LC1.000		0.45	1.45	1.45	0.45				11.84	1.00	1.15	0.15
POMI.C11.LC1.000		11.10	12.90	16.80	0.90	0.90			47.00	62.00		6.90
WCRI.C11.LC1.000		1.00	12.75	4.80		6.22	54.10	54.10	3.83			



**APPENDIX E 3:**  
**MONTHLY MACHINE COEFFICIENTS**  
**(HRS PER DECAR)**



# MONTHLY MACHINE COEFFICIENTS

Machinehours per decar and month

	MG01	MG02	MG03	MG04	MG05	MG06	MG07	MG08	MG09	MG10	MG11	MG12
ALFI.C11.LC1.N00		0.17		0.07	0.07	0.07	0.14	0.14	0.07			0.29
ALFI.C11.LC1.S00		0.17		0.07	0.07	0.07	0.14	0.14	0.07	0.07		0.29
ALFI.C11.LC2.N00		0.18		0.07	0.07	0.07	0.15	0.15	0.07			0.32
ALFI.C11.LC2.S00		0.18		0.07	0.07	0.07	0.15	0.15	0.07	0.07		0.32
ALFI.C11.LC3.N00		0.20		0.08	0.08	0.08	0.16	0.16	0.08			0.34
ALFI.C11.LC3.S00		0.20		0.08	0.08	0.08	0.16	0.16	0.08	0.08		0.34
BR1I.C11.LC1.N00		0.12				0.28						0.30
BR1I.C11.LC1.S00		0.12			0.28							0.30
BR1I.C11.LC2.N00		0.13				0.31						0.33
BR1I.C11.LC2.S00		0.13			0.31							0.33
BR1I.C11.LC3.N00		0.14				0.33						0.35
BR1I.C11.LC3.S00		0.14			0.33							0.35
BR2I.C11.LC1.N00		0.12				0.28				0.30		
BR2I.C11.LC1.S00		0.12			0.28					0.30		
BR2I.C11.LC2.N00		0.13				0.31				0.33		
BR2I.C11.LC2.S00		0.13			0.31					0.33		
BR2I.C11.LC3.N00		0.14				0.33				0.35		
BR2I.C11.LC3.S00		0.14			0.33					0.35		
BRLD.C11.LC1.000		0.12			0.26							0.82
BRLD.C11.LC2.000		0.13			0.28							0.89
BRLD.C11.LC3.000		0.14			0.31							0.97
BRLD.C11.LC4.000		0.15			0.33							1.04
CASI.C11.LC1.N00			1.92				0.35					
CASI.C11.LC1.S00		1.78	0.14			0.35						
CASI.C11.LC2.N00			2.09				0.38					
CASI.C11.LC2.S00		1.94	0.15			0.38						
CASI.C11.LC3.N00			2.27				0.41					
CASI.C11.LC3.S00		2.10	0.17			0.41						
CAWI.C11.LC1.N00				0.35					1.92			
CAWI.C11.LC1.S00				0.35					1.92			
CAWI.C11.LC2.N00				0.38					2.09			
CAWI.C11.LC2.S00				0.38					2.09			
CAWI.C11.LC3.N00				0.41					2.09			
CAWI.C11.LC3.S00				0.41					2.27			
CB1I.C11.LC1.N00								19.20				
CB1I.C11.LC1.S00								19.20				
CB1I.C11.LC2.N00								20.93				
CB1I.C11.LC2.S00								20.93				
CB1I.C11.LC3.N00								22.66				
CB1I.C11.LC3.S00								22.66				
CB2I.C11.LC1.N00								1.92				0.35
CB2I.C11.LC1.S00								1.92			0.35	
CB2I.C11.LC2.N00								2.09				0.38
CB2I.C11.LC2.S00								2.09			0.38	
CB2I.C11.LC3.N00								2.27				0.41
CB2I.C11.LC3.S00								2.27			0.41	
CB3I.C11.LC1.N00				0.35					1.92			
CB3I.C11.LC1.S00			0.35						1.92			
CB3I.C11.LC2.N00				0.38					2.09			
CB3I.C11.LC2.S00			0.38						2.09			
CB3I.C11.LC3.N00				0.41					2.27			
CB3I.C11.LC3.S00			0.41						2.27			
CC1I.C11.LC1.N00					1.27		0.21	0.21	0.21			
CC1I.C11.LC1.S00				1.27		0.21	0.21	0.21				
CC1I.C11.LC2.N00					1.38		0.23	0.23	0.23			
CC1I.C11.LC2.S00				1.38		0.23	0.23	0.23				
CC1I.C11.LC3.N00					1.49		0.25	0.25	0.25			

MONTHLY MACHINE COEFFICIENTS

Machinehours per decar and month

	MG01	MG02	MG03	MG04	MG05	MG06	MG07	MG08	MG09	MG10	MG11	MG12
CC1I.C11.LC3.S00				1.49		0.25	0.25	0.25				
CC2I.C11.LC1.N00					1.27		0.21	0.21		0.21		
CC2I.C11.LC1.S00					1.92	0.32	0.32		0.32			
CC2I.C11.LC2.N00					1.38		0.23	0.23		0.23		
CC2I.C11.LC2.S00					2.09	0.35	0.35		0.35			
CC2I.C11.LC3.N00					1.49		0.25	0.25		0.25		
CC2I.C11.LC3.S00					2.27	0.38	0.38		0.38			
CG1I.C11.LC1.N00						0.44	0.24			0.30		
CG1I.C11.LC1.S00							0.24			0.30		
CG1I.C11.LC2.N00						0.48	0.26			0.33		
CG1I.C11.LC2.S00							0.26			0.33		
CG1I.C11.LC3.N00						0.52	0.28			0.35		
CG1I.C11.LC3.S00							0.28			0.35		
CG2I.C11.LC1.N00			0.67	0.24				0.30				
CG2I.C11.LC1.S00			0.91					0.30				
CG2I.C11.LC2.N00			0.73	0.26				0.33				
CG2I.C11.LC2.S00			0.99					0.33				
CG2I.C11.LC3.N00			0.79	0.28				0.35				
CG2I.C11.LC3.S00			1.07					0.35				
CG3I.C11.LC1.N00					0.24				0.30			
CG3I.C11.LC1.S00				0.44	0.24			0.30				
CG3I.C11.LC2.N00					0.26				0.33			
CG3I.C11.LC2.S00				0.48	0.26			0.33				
CG3I.C11.LC3.N00					0.28				0.35			
CG3I.C11.LC3.S00				0.52	0.28			0.35				
CH1I.C11.LC1.N00							0.81				0.79	
CH1I.C11.LC1.S00						0.81					0.79	
CH1I.C11.LC2.N00							0.89				0.86	
CH1I.C11.LC2.S00						0.89					0.86	
CH1I.C11.LC3.N00							0.96				0.93	
CH1I.C11.LC3.S00						0.96					0.93	
CH2I.C11.LC1.N00						0.54					0.52	
CH2I.C11.LC1.S00						0.85					0.82	
CH2I.C11.LC2.N00						0.59					0.57	
CH2I.C11.LC2.S00						0.93					0.89	
CH2I.C11.LC3.N00						0.64					0.62	
CH2I.C11.LC3.S00						1.00					0.97	
CH3I.C11.LC1.N00							0.54				0.52	
CH3I.C11.LC1.S00						0.85						0.82
CH3I.C11.LC2.N00							0.59			0.57		
CH3I.C11.LC2.S00						0.93					0.89	
CH3I.C11.LC3.N00							0.64			0.62		
CH3I.C11.LC3.S00						1.00					0.97	
CHCD.C11.LC1.N00							0.48				0.52	
CHCD.C11.LC1.S00					0.48						0.52	
CHCD.C11.LC2.N00						0.52					0.57	
CHCD.C11.LC2.S00					0.52						0.57	
CHCD.C11.LC3.N00						0.56					0.62	
CHCD.C11.LC3.S00					0.56						0.62	
CHCD.C11.LC4.N00						0.61					0.66	
CHCD.C11.LC4.S00					0.61						0.66	
CLFI.C11.LC1.N00							1.19					
CLFI.C11.LC1.S00							1.19					
CLFI.C11.LC2.N00							1.30					
CLFI.C11.LC2.S00							1.30					
CLFI.C11.LC3.N00							1.40					
CLFI.C11.LC3.S00							1.40					

# MONTHLY MACHINE COEFFICIENTS

Machinehours per decar and month

	MG01	MG02	MG03	MG04	MG05	MG06	MG07	MG08	MG09	MG10	MG11	MG12
CS11.C11.LC1.N00						0.67	0.24			0.30		
CS11.C11.LC1.S00						0.67	0.24			0.30		
CS11.C11.LC2.N00						0.73	0.26			0.33		
CS11.C11.LC2.S00						0.73	0.26			0.33		
CS11.C11.LC3.N00						0.79	0.28			0.35		
CS11.C11.LC3.S00						0.79	0.28			0.35		
CS21.C11.LC1.N00			0.67	0.24				0.30				
CS21.C11.LC1.S00			0.91				0.30					
CS21.C11.LC2.N00			0.73	0.26				0.33				
CS21.C11.LC2.S00			0.99				0.33					
CS21.C11.LC3.N00			0.79	0.28				0.35				
CS21.C11.LC3.S00			1.07				0.35					
CS31.C11.LC1.N00				0.59	0.24			0.30				
CS31.C11.LC1.S00				0.67	0.24			0.30				
CS31.C11.LC2.N00				0.64	0.26			0.33				
CS31.C11.LC2.S00				0.73	0.26			0.33				
CS31.C11.LC3.N00				0.69	0.28			0.35				
CS31.C11.LC3.S00				0.79	0.28			0.35				
CT11.C11.LC1.N00				1.36	0.16	0.16	0.24	0.16		0.46		
CT11.C11.LC1.S00				1.36	0.16	0.16	0.24	0.16	0.46			
CT11.C11.LC2.N00				1.47	0.17	0.17	0.26	0.17			0.50	
CT11.C11.LC2.S00				1.47	0.17	0.17	0.26	0.17	0.50			
CT21.C11.LC1.S00				1.19	0.16	0.16	0.24	0.16			0.46	
CT21.C11.LC2.S00				1.30	0.17	0.17	0.26	0.17			0.50	
CT31.C11.LC1.S00					1.19	0.16	0.16	0.24	0.16	0.46		
CT31.C11.LC2.S00					1.30	0.17	0.17	0.26	0.17	0.50		
CTO1.C11.LC1.N00				1.93	0.18	0.25	0.25	0.25	0.25	0.25		
CTO1.C11.LC1.S00			1.78	0.15	0.25	0.25	0.25	0.25	0.25	0.25		
CTO1.C11.LC2.N00				2.10	0.27	0.27	0.27	0.27	0.27	0.27		
CTO1.C11.LC2.S00			1.94	0.16	0.27	0.27	0.27	0.27	0.27	0.27		
CTO1.C11.LC3.N00				2.28	0.30	0.30	0.30	0.30	0.30	0.30		
CTO1.C11.LC3.S00			2.10	0.18	0.30	0.30	0.30	0.30	0.30	0.30		
CW11.C11.LC1.N00		0.12				0.28						1.01
CW11.C11.LC1.S00		0.12				0.28						1.01
CW11.C11.LC2.N00		0.13				0.31						1.10
CW11.C11.LC2.S00		0.13				0.31						1.10
CW11.C11.LC3.N00		0.14				0.33						1.19
CW11.C11.LC3.S00		0.14				0.33						1.19
CW21.C11.LC1.N00		0.12				0.28				1.01		
CW21.C11.LC2.N00		0.13				0.31				1.10		
CW21.C11.LC3.N00		0.14				0.33				1.19		
CW31.C11.LC1.S00		0.12				0.28				1.01		
CW31.C11.LC2.S00		0.13				0.31				1.10		
CW31.C11.LC3.S00		0.14				0.33				1.19		
CWHD.C11.LC1.000		0.12				0.26				0.67	0.15	
CWHD.C11.LC2.000		0.13				0.28				0.73	0.16	
CWHD.C11.LC3.000		0.14				0.31				0.79	0.18	
CWHD.C11.LC4.000		0.15				0.33				0.85	0.19	
DBN1.C11.LC1.N00				0.87			0.80					
DBN1.C11.LC2.N00				0.95			0.87					
DBN1.C11.LC3.N00				1.03			0.94					
DW11.C11.LC1.N00						0.28						1.01
DW11.C11.LC1.S00						0.28						1.01
DW11.C11.LC2.N00						0.31						1.10
DW11.C11.LC2.S00						0.31						1.10
DW11.C11.LC3.N00						0.33						1.30
DW11.C11.LC3.S00						0.33						1.30

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	MG01	MG02	MG03	MG04	MG05	MG06	MG07	MG08	MG09	MG10	MG11	MG12
DW2I.C11.LC1.N00		0.12				0.28				1.01		
DW2I.C11.LC2.N00		0.13				0.31				1.10		
DW2I.C11.LC3.N00		0.14				0.33				1.19		
DW3I.C11.LC1.S00		0.12				0.28				1.01		
DW3I.C11.LC2.S00		0.13				0.31				1.10		
DW3I.C11.LC3.S00		0.14				0.33				1.19		
DWHD.C11.LC1.000			0.20			0.31					0.56	0.13
DWHD.C11.LC2.000			0.22			0.34					0.61	0.14
DWHD.C11.LC3.000			0.24			0.37					0.66	0.15
DWHD.C11.LC4.000			0.26			0.39					0.71	0.16
EG1I.C11.LC1.N00			1.78	0.24			0.96	0.95		0.96		
EG1I.C11.LC1.S00	1.78		0.24			0.96	0.96			0.96		
EG1I.C11.LC2.N00			1.94	0.26			1.05	1.04		1.05		
EG1I.C11.LC2.S00	1.94		0.26			1.05	1.05			1.05		
EG1I.C11.LC3.N00			2.10	0.28			1.13	1.12		1.13		
EG1I.C11.LC3.S00	2.10		0.28			1.13	1.13			1.13		
EG2I.C11.LC1.N00			1.78	0.24			0.96			0.96		
EG2I.C11.LC1.S00			1.78	0.24		0.96	0.96			0.96		
EG2I.C11.LC2.N00			1.94	0.26			1.05			1.05		
EG2I.C11.LC2.S00			1.94	0.26		1.05	1.05			1.05		
EG2I.C11.LC3.N00			2.10	0.28			1.13			1.13		
EG2I.C11.LC3.S00			2.10	0.28		1.13	1.13			1.13		
FTOI.C11.LC1.N00				1.93	0.18	0.25	0.25	0.25	0.25	0.25		
FTOI.C11.LC1.S00			1.78	0.15	0.25	0.25	0.25	0.25	0.25	0.25		
FTOI.C11.LC2.N00				2.10	0.27	0.27	0.27	0.27	0.27	0.27		
FTOI.C11.LC2.S00			1.94	0.16	0.27	0.27	0.27	0.27	0.27	0.27		
FTOI.C11.LC3.N00				2.28	0.30	0.30	0.30	0.30	0.30	0.30		
FTOI.C11.LC3.S00			2.10	0.18	0.30	0.30	0.30	0.30	0.30	0.30		
GN1I.C11.LC1.N00			1.19					2.20				
GN1I.C11.LC1.S00						0.91				2.20		
GN1I.C11.LC2.N00			1.30					2.40				
GN1I.C11.LC2.S00						0.99				2.40		
GN1I.C11.LC3.N00				1.40				2.60				
GN1I.C11.LC3.S00						1.07				2.60		
GN2I.C11.LC1.N00					0.84				2.20			
GN2I.C11.LC1.S00					0.91		0.35	2.20				
GN2I.C11.LC2.N00					0.92				2.40			
GN2I.C11.LC2.S00					0.99		0.38	2.40				
GN2I.C11.LC3.N00					0.99				2.60			
GN2I.C11.LC3.S00					1.07		0.41	2.60				
LEKI.C11.LC1.N00							1.92					0.35
LEKI.C11.LC1.S00							1.92					0.35
LEKI.C11.LC2.N00							2.09					0.38
LEKI.C11.LC2.S00							2.09					0.38
LEKI.C11.LC3.N00							2.27					0.41
LEKI.C11.LC3.S00							2.27					0.41
LNTD.C11.LC1.000					0.48						0.52	
LNTD.C11.LC2.000					0.52						0.57	
LNTD.C11.LC3.000					0.56						0.62	
LNTD.C11.LC4.000					0.61						0.66	
LNTI.C11.LC1.N00						0.73				0.17	0.70	
LNTI.C11.LC1.S00					0.73						0.17	0.70
LNTI.C11.LC2.N00						0.79				0.19	0.76	
LNTI.C11.LC2.S00					0.79						0.19	0.76
LNTI.C11.LC3.N00						0.85				0.20	0.83	
LNTI.C11.LC3.S00					0.85						0.20	0.83
LT1I.C11.LC1.N00				0.35						1.92		



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Machinehours per decar and month

	MG01	MG02	MG03	MG04	MG05	MG06	MG07	MG08	MG09	MG10	MG11	MG12
LT11.C11.LC1.S00				0.35								1.92
LT11.C11.LC2.N00				0.38						2.09		
LT11.C11.LC2.S00				0.38							2.09	
LT11.C11.LC3.N00				0.41						2.27		
LT11.C11.LC3.S00				0.41							2.27	
LT21.C11.LC1.N00			0.35							1.92		
LT21.C11.LC1.S00			0.35							1.92		
LT21.C11.LC2.N00			0.38							2.09		
LT21.C11.LC2.S00			0.38							2.09		
LT21.C11.LC3.N00			0.41							2.27		
LT21.C11.LC3.S00			0.41							2.27		
LT31.C11.LC1.N00					0.35							1.92
LT31.C11.LC1.S00				0.35								1.92
LT31.C11.LC2.N00					0.38							2.09
LT31.C11.LC2.S00				0.38								2.09
LT31.C11.LC3.N00					0.41							2.27
LT31.C11.LC3.S00				0.41								2.27
MELD.C11.LC1.000				0.67		0.50			0.80			
MELD.C11.LC2.000				0.73		0.55			0.87			
MELD.C11.LC3.000				0.79		0.59			0.94			
MELD.C11.LC4.000				0.85		0.64			1.02			
MELI.C11.LC1.N00				1.62	0.22	0.50	0.50	0.08	0.08			
MELI.C11.LC1.S00				1.84		0.50	0.58	0.08				
MELI.C11.LC2.N00				1.77	0.24	0.55	0.55	0.09	0.09			
MELI.C11.LC2.S00				1.84		0.50	0.58	0.08				
MELI.C11.LC3.N00				1.91	0.26	0.59	0.59	0.09	0.09			
MELI.C11.LC3.S00				2.17		0.59	0.68	0.09				
OKRI.C11.LC1.S00			2.13							0.20		
OKRI.C11.LC2.S00			2.32							0.22		
OKRI.C11.LC3.S00			2.51							0.24		
ON11.C11.LC1.N00							0.24		1.46			
ON11.C11.LC1.S00						0.24			1.46			
ON11.C11.LC2.N00							0.26		1.59			
ON11.C11.LC2.S00							0.26		1.59			
ON11.C11.LC3.N00								0.29	1.72			
ON11.C11.LC3.S00							0.29		1.72			
ON21.C11.LC1.N00							0.33	1.98				
ON21.C11.LC1.S00							0.24		1.46			
ON21.C11.LC2.N00								0.36	2.16			
ON21.C11.LC2.S00							0.26		1.59			
ON21.C11.LC3.N00								0.39	2.34			
ON21.C11.LC3.S00							0.29		1.72			
ON31.C11.LC1.N00								0.33	1.98			
ON31.C11.LC1.S00								0.24		1.46		
ON31.C11.LC2.N00								0.36	2.16			
ON31.C11.LC2.S00								0.26		1.59		
ON31.C11.LC3.N00								0.39	2.34			
ON31.C11.LC3.S00								0.29		1.72		
ONSI.C11.LC1.N00									1.98			
ONSI.C11.LC1.S00									0.33			
ONSI.C11.LC2.N00		1.78	0.20					0.33				
ONSI.C11.LC2.S00			2.16						0.36			
ONSI.C11.LC2.S00		1.94	0.22					0.36				
ONSI.C11.LC3.N00			2.34						0.39			
ONSI.C11.LC3.S00		2.10	0.24					0.39				
PP11.C11.LC1.N00					1.69			0.12	0.12	0.12		0.12
PP11.C11.LC1.S00				0.28								1.52
PP11.C11.LC2.N00					1.84			0.13	0.13	0.13		0.13

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Machinehours per decaer and month

	MG01	MG02	MG03	MG04	MG05	MG06	MG07	MG08	MG09	MG10	MG11	MG12
PP1I.C11.LC2.S00				0.30								1.66
PP1I.C11.LC3.N00					1.99			0.14	0.14	0.14	0.14	
PP1I.C11.LC3.S00				0.33								1.80
PP2I.C11.LC1.N00					2.13		0.15	0.15	0.15			0.15
PP2I.C11.LC1.S00					1.69	0.12	0.12	0.12		0.12		
PP2I.C11.LC2.N00					2.32		0.16	0.16	0.16			0.16
PP2I.C11.LC2.S00					1.84	0.13	0.13	0.13		0.13		
PP2I.C11.LC3.N00					2.51		0.18	0.18	0.18			0.18
PP2I.C11.LC3.S00					1.99	0.14	0.14	0.14		0.14		
PTEI.C11.LC1.N00			1.54				2.20					
PTEI.C11.LC1.S00			1.54				2.20					
PTEI.C11.LC2.N00			1.68				2.40					
PTEI.C11.LC2.S00			1.68				2.40					
PTEI.C11.LC3.N00			1.82				2.60					
PTEI.C11.LC3.S00			1.82				2.60					
PTLI.C11.LC1.N00			1.54					2.20				
PTLI.C11.LC1.S00			1.54				2.20					
PTLI.C11.LC2.N00			1.68					2.40				
PTLI.C11.LC2.S00			1.68				2.40					
PTLI.C11.LC3.N00			1.82					2.60				
PTLI.C11.LC3.S00			1.82				2.60					
RICI.C11.LC1.N00					2.11					1.49		
RICI.C11.LC1.S00				2.11					1.49			
RYED.C11.LC0.000		0.11	0.32				0.21					0.28
SB1I.C11.LC1.N03						0.58					0.82	
SB1I.C11.LC1.S00						0.58	0.21				0.73	
SB1I.C11.LC2.N00						0.63					0.89	
SB1I.C11.LC2.S00						0.63	0.23				0.80	
SB1I.C11.LC3.N00						0.68					0.97	
SB1I.C11.LC3.S00						0.68	0.24				0.87	
SB2I.C11.LC1.N00		0.67	0.24					0.85				
SB2I.C11.LC1.S00		0.79						0.73				
SB2I.C11.LC2.N00		0.73	0.26					0.93				
SB2I.C11.LC2.S00		0.86						0.80				
SB2I.C11.LC3.N00		0.79	0.28					1.00				
SB2I.C11.LC3.S00		0.93						0.87				
SB3I.C11.LC1.N00				0.29	0.24				0.85			
SB3I.C11.LC1.S00				0.58	0.21				0.73			
SB3I.C11.LC2.N00				0.32	0.26				0.93			
SB3I.C11.LC2.S00				0.63	0.23				0.80			
SB3I.C11.LC3.N00				0.35	0.28				1.00			
SB3I.C11.LC3.S00				0.68	0.24				0.86			
SBTI.C11.LC1.N00		1.41								0.69		
SBTI.C11.LC1.S00		1.41							0.69			
SBTI.C11.LC2.N00		1.54								0.75		
SBTI.C11.LC2.S00		1.54							0.75			
SBTI.C11.LC3.N00		1.67								0.81		
SBTI.C11.LC3.S00		1.67							0.81			
SESD.C11.LC1.000		0.87					0.20					
SESD.C11.LC2.000		0.95					0.22					
SESD.C11.LC3.000		1.03					0.24					
SESD.C11.LC4.000		1.10					0.25					
SG1I.C11.LC1.N00						0.67	0.24					0.30
SG1I.C11.LC1.S00						0.67	0.24				0.30	
SG1I.C11.LC2.N00						0.73	0.26					0.33
SG1I.C11.LC2.S00						0.73	0.26				0.33	
SG1I.C11.LC3.N00						0.79	0.28					0.35

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Machinehours per decar and month

	MG01	MG02	MG03	MG04	MG05	MG06	MG07	MG08	MG09	MG10	MG11	MG12
SG1I.C11.LC3.S00						0.79	0.28					0.35
SG2I.C11.LC1.N00			0.67	0.24				0.30				
SG2I.C11.LC1.S00			0.91					0.30				
SG2I.C11.LC2.N00			0.73	0.26				0.33				
SG2I.C11.LC2.S00			0.99					0.33				
SG2I.C11.LC3.N00			0.79	0.28				0.35				
SG2I.C11.LC3.S00			1.07					0.35				
SG3I.C11.LC1.N00				0.63	0.24				0.30			
SG3I.C11.LC1.S00				0.67	0.24				0.30			
SG3I.C11.LC2.N03				0.69	0.26				0.33			
SG3I.C11.LC2.S00				0.73	0.26				0.33			
SG3I.C11.LC3.N00				0.75	0.28				0.35			
SG3I.C11.LC3.S00				0.79	0.28				0.35			
SN1I.C11.LC1.N00			0.87						0.25			
SN1I.C11.LC1.S00			0.87					0.25				
SN1I.C11.LC2.N00			0.95						0.27			
SN1I.C11.LC2.S06			0.95					0.27				
SN1I.C11.LC3.N00			1.03						0.30			
SN1I.C11.LC3.S00			1.03					0.30				
SN2I.C11.LC1.N00				0.87					0.25			
SN2I.C11.LC1.S00				0.87					0.25			
SN2I.C11.LC2.N00				0.95					0.27			
SN2I.C11.LC2.S00				0.95					0.27			
SN2I.C11.LC3.N00				1.03					0.30			
SN2I.C11.LC3.S00				1.03					0.30			
SN3I.C11.LC1.S00				1.07					0.25			
SN3I.C11.LC2.S00				1.17					0.27			
SN3I.C11.LC3.S00				1.26					0.30			
SNFD.C11.LC1.000		0.52	0.52					0.15				
SNFD.C11.LC2.000		0.57	0.57					0.16				
SNFD.C11.LC3.000		0.62	0.62					0.18				
SNFD.C11.LC4.000		0.67	0.67					0.19				
SP1I.C11.LC1.N00									1.01			
SP1I.C11.LC1.S00									0.84	0.14		
SP1I.C11.LC2.N00									1.10			
SP1I.C11.LC2.S00									0.92	0.15		
SP1I.C11.LC3.N00									1.19			
SP1I.C11.LC3.S00									1.09	0.18		
SP2I.C11.LC1.N00									0.98	0.35		
SP2I.C11.LC1.S00									0.14	0.84	0.35	
SP2I.C11.LC2.N00									1.07	0.38		
SP2I.C11.LC2.S00									0.15	0.92	0.38	
SP2I.C11.LC3.N00									1.16	0.41		
SP2I.C11.LC3.S00									0.17	0.99	0.41	
SP3I.C11.LC1.N00		0.35								0.98		
SP3I.C11.LC1.S00										0.98		
SP3I.C11.LC2.N00		0.38								1.07		
SP3I.C11.LC2.S00										1.07		
SP3I.C11.LC3.N00		0.41								1.16		
SP3I.C11.LC3.S00										1.16		
SPSI.C11.LC1.N00			1.92		0.35							
SPSI.C11.LC1.S00			1.92	0.35								
SPSI.C11.LC2.N00			2.09		0.38							
SPSI.C11.LC2.S00			2.09	0.38								
SPSI.C11.LC3.N00			2.27		0.41							
SPSI.C11.LC3.S00			2.27	0.41								
SQAI.C11.LC1.N00				2.13		0.15	0.15	0.15				

# MONTHLY MACHINE COEFFICIENTS

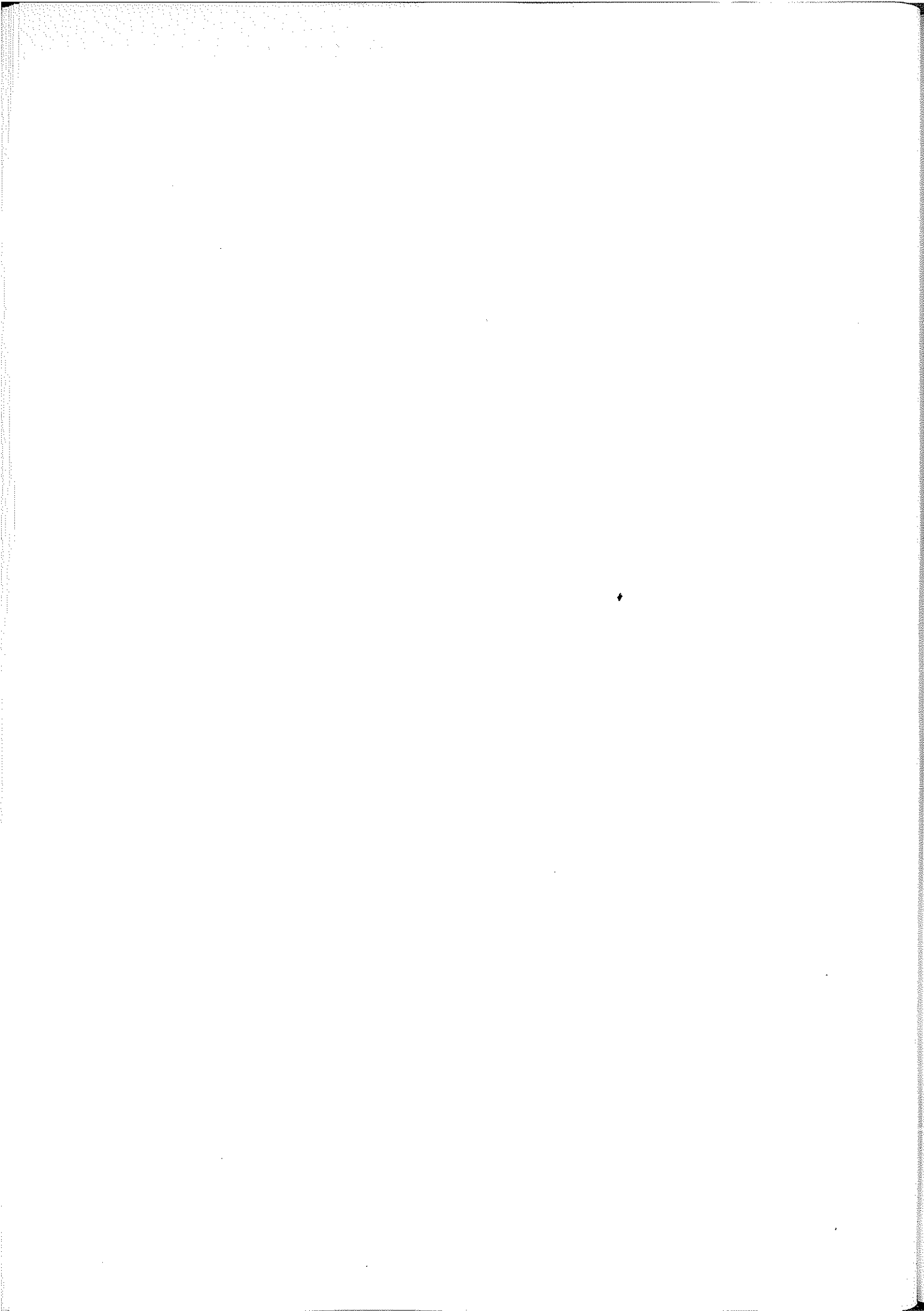
Machinehours per decar and month

	MG01	MG02	MG03	MG04	MG05	MG06	MG07	MG08	MG09	MG10	MG11	MG12
SQAI.C11.LC1.S00				2.13	0.15	0.15	0.15					
SQAI.C11.LC2.N00				2.32		0.16	0.16	0.16				
SQAI.C11.LC2.S00				2.32	0.16	0.16	0.16					
SQAI.C11.LC3.N00				2.51		0.18	0.18	0.18				
SQAI.C11.LC3.N03				2.51		0.18	0.18	0.18				
SQAI.C11.LC3.S00				2.51	0.18	0.18	0.18					
SS1I.C11.LC1.N00						0.67	0.24				0.30	
SS1I.C11.LC1.S00						0.67	0.24				0.30	
SS1I.C11.LC2.N00						0.73	0.26				0.33	
SS1I.C11.LC2.S00						0.73	0.26				0.33	
SS1I.C11.LC3.N00						0.79	0.28				0.35	
SS1I.C11.LC3.S00						0.79	0.28				0.35	
SS2I.C11.LC1.N00			0.67	0.24				0.30				
SS2I.C11.LC1.S00			0.91					0.30				
SS2I.C11.LC2.N00			0.73	0.26				0.33				
SS2I.C11.LC2.S00			0.99					0.33				
SS2I.C11.LC3.N00			0.79	0.28				0.35				
SS2I.C11.LC3.S00			1.07					0.35				
SS3I.C11.LC1.N00					0.89			0.30				
SS3I.C11.LC1.S00				0.67	0.24			0.30				
SS3I.C11.LC2.N00					0.97			0.33				
SS3I.C11.LC2.S00				0.73	0.26			0.33				
SS3I.C11.LC3.N00					1.05			0.35				
SS3I.C11.LC3.S00				0.79	0.28			0.35				
TOBD.C11.LC2.000				1.13								
TOBD.C11.LC3.000				1.23								
TOBD.C11.LC4.000				1.32								
VCFD.C11.LC1.000		0.67	0.15		0.25							
VCFD.C11.LC2.000		0.73	0.16		0.27							
VCFD.C11.LC3.000		0.79	0.18		0.30							
VCFD.C11.LC4.000		0.85	0.19		0.32							
VCGD.C11.LC1.N00		0.67	0.15				0.50					
VCGD.C11.LC1.S00	0.67	0.15				0.50						
VCGD.C11.LC2.N00		0.73	0.16				0.55					
VCGD.C11.LC2.S00	0.73	0.16				0.55						
VCGD.C11.LC3.N00		0.79	0.18				0.59					
VCGD.C11.LC3.S00	0.79	0.18				0.59						
VCGD.C11.LC4.N00		0.85	0.19				0.64					
VCGD.C11.LC4.S00	0.85	0.19				0.64						
WMLD.C11.LC1.N00				0.89		0.36		0.24				
WMLD.C11.LC1.S00				0.89		0.36	0.24					
WMLD.C11.LC2.N00				0.97		0.39		0.26				
WMLD.C11.LC2.S00				0.97		0.39	0.26					
WMLD.C11.LC3.N00				1.05		0.42		0.28				
WMLD.C11.LC3.S00				1.05		0.42	0.28					
WMLD.C11.LC4.N00				1.13		0.46		0.30				
WMLD.C11.LC4.S00				1.13		0.46	0.30					
WMLI.C11.LC1.N00		0.67	0.27	0.36	0.36	0.60	0.24					
WMLI.C11.LC1.S00		0.67	0.27	0.36	0.36	0.60	0.24					
WMLI.C11.LC2.N00		0.73	0.29	0.39	0.39	0.65	0.26					
WMLI.C11.LC2.S00		0.73	0.29	0.39	0.39	0.65	0.26					
WMLI.C11.LC3.N00		0.79	0.32	0.42	0.42	0.71	0.28					
WMLI.C11.LC3.S00		0.79	0.32	0.42	0.42	0.71	0.28					
APPI.C11.LC1.N00			0.52			0.52		0.16	0.16			
APRI.C11.LC1.N00			0.86	0.07	0.07		0.86					
APRI.C11.LC1.S00			0.86			0.09	0.09	0.86				

**MONTHLY MACHINE COEFFICIENTS**

Machinehours per decar and month

	MG01	MG02	MG03	MG04	MG05	MG06	MG07	MG08	MG09	MG10	MG11	MG12
CRR1.C11.LC1.N00				0.72	0.80	0.06	1.70			1.20		
FGDI.C11.LC1.N00				0.70	0.35		0.65		0.05	0.35		
FGFI.C11.LC1.N00				0.70	0.70		0.70	0.35		0.35		
GRSI.C11.LC1.N00		0.70	1.14		0.20		1.80	0.15				
GRTD.C11.LC1.000			0.40				0.40					
GRTD.C11.LC1.000									0.60	0.60		
GRTI.C11.LC1.N00			0.60		0.60				0.17	0.17		
GRTI.C11.LC1.S00		0.70	1.14		0.20		2.00	0.25				
GRWD.C11.LC1.000									0.60	0.60		
OLOD.C11.LC1.000							0.28		0.50		0.02	0.02
PARI.C11.LC1.N00				3.00	4.00	4.00	4.00	4.00	4.00	1.60		
PCFI.C11.LC1.N00		0.50	1.66		0.15	0.15	0.21	0.70	1.90			
PCPI.C11.LC1.N00		0.50				0.80	0.76		0.26		0.78	
PISD.C11.LC1.000		0.25	0.15	0.15	0.25				0.04		0.15	0.15
POMI.C11.LC1.N00									0.30	0.30		
WCRI.C11.LC1.N00			0.48	0.75		1.22	0.14	0.14				



**APPENDIX E 4:**  
**SEED COEFFICIENTS**  
**(KG PER DECAR)**





## SEED COEFFICIENTS

kg/da

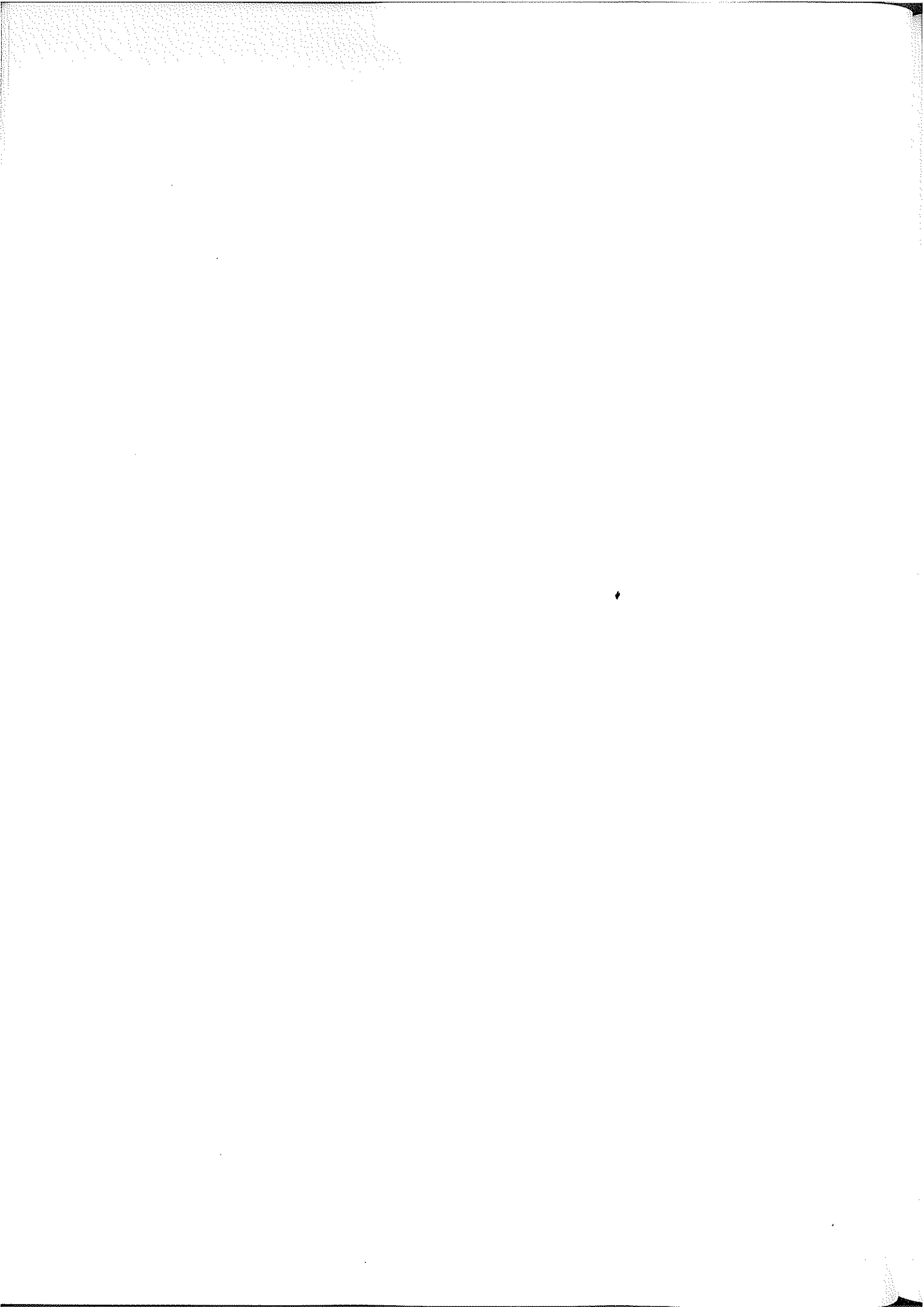
ALFI.C11.LCO.000.S-ALFALFA	1.50
BR1I.C11.LCO.000.S-BARLEY	20.00
BR2I.C11.LCO.000.S-BARLEY	20.00
BRLD.C11.LCO.000.S-BARLEY	18.00
CASI.C11.LCO.000.S-CARROT	0.75
CAWI.C11.LCO.000.S-CARROT	0.75
CB1I.C11.LCO.000.S-CABBAGE	7.50
CB2I.C11.LCO.000.S-CABBAGE	7.50
CB2I.C11.LC2.000.S-CABBAGE	7.50
CB2I.C11.LC3.000.S-CABBAGE	7.50
CB3I.C11.LCO.000.S-CABBAGE	7.50
CC1I.C11.LCO.000.S-CUCUMBER	0.55
CC2I.C11.LCO.000.S-CUCUMBER	0.55
CG1I.C11.LCO.000.S-CORN	4.00
CG2I.C11.LCO.000.S-CORN	4.00
CG3I.C11.LC2.000.S-CORN	4.00
CH1I.C11.LCO.000.S-CHICKPEA	10.00
CH2I.C11.LCO.000.S-CHICKPEA	10.00
CH3I.C11.LCO.000.S-CHICKPEA	10.00
CHCD.C11.LCO.000.S-CHICKPEA	10.00
CLFI.C11.LCO.000.S-CAULIFLW	4.00
CS1I.C11.LCO.000.S-CORN	4.00
CS2I.C11.LCO.000.S-CORN	4.00
CS3I.C11.LCO.000.S-CORN	4.00
CT1I.C11.LCO.000.S-COTTON	4.50
CT2I.C11.LCO.S00.S-COTTON	4.50
CT3I.C11.LCO.S00.S-COTTON	4.50
CTOI.C11.LCO.000.S-CONTOMAT	3.00
CW1I.C11.LCO.000.S-COMWHEAT	20.00
CW2I.C11.LCO.N00.S-COMWHEAT	20.00
CW3I.C11.LCO.S00.S-COMWHEAT	20.00
CWHD.C11.LCO.000.S-COMWHEAT	18.00
DENI.C11.LCO.000.S-DRYBEAN	10.00
DW1I.C11.LCO.000.S-DURWHEAT	20.00
DW2I.C11.LCO.N00.S-DURWHEAT	20.00
DW3I.C11.LCO.S00.S-DURWHEAT	20.00
DWHD.C11.LCO.000.S-DURWHEAT	18.00
EG1I.C11.LCO.000.S-AUBERGIN	2.00
EG2I.C11.LCO.000.S-AUBERGIN	2.00
FTOI.C11.LCO.000.S-FRETOMAT	3.00
GN1I.C11.LCO.000.S-GRUNDNUT	10.00
GN2I.C11.LCO.000.S-GRUNDNUT	10.00
LEKI.C11.LCO.000.S-LEEK	0.40
LNTD.C11.LCO.000.S-LENTIL	9.00
LNTI.C11.LCO.000.S-LENTIL	9.00
LT1I.C11.LCO.000.S-LETTUCE	8.00
LT2I.C11.LCO.000.S-LETTUCE	8.00
LT3I.C11.LCO.000.S-LETTUCE	8.00
MELD.C11.LCO.000.S-MELON	0.65
MELI.C11.LCO.000.S-MELON	0.65
OKRI.C11.LCO.S00.S-OKRA	4.50
ON1I.C11.LCO.000.S-ONION	28.00
ON2I.C11.LCO.000.S-ONION	28.00
ON3I.C11.LCO.000.S-ONION	28.00
ONSI.C11.LCO.000.S-ONION	33.00
PP1I.C11.LCO.000.S-PEPPER	4.00
PP2I.C11.LCO.000.S-PEPPER	4.00
PTEI.C11.LCO.000.S-POTATO	250.00
PTLI.C11.LCO.000.S-POTATO	250.00

## SEED COEFFICIENTS

kg/da

RICI.C11.LCO.000.S-RICE	20.00
RYED.C11.LCO.000.S-RYE	18.50
SB1I.C11.LCO.000.S-SOYABEAN	8.00
SB2I.C11.LCO.000.S-SOYABEAN	8.00
SB3I.C11.LCO.000.S-SOYABEAN	8.00
SBTI.C11.LCO.000.S-SUGRBEET	1.00
SESD.C11.LCO.000.S-SESAME	0.10
SG1I.C11.LCO.000.S-SORGHUM	6.00
SG2I.C11.LCO.000.S-SORGHUM	6.00
SG3I.C11.LCO.000.S-SORGHUM	6.00
SN1I.C11.LCO.000.S-SUNFLWER	1.00
SN2I.C11.LCO.000.S-SUNFLWER	1.00
SN3I.C11.LCO.S00.S-SUNFLWER	1.00
SNFD.C11.LCO.000.S-SUNFLWER	1.00
SP1I.C11.LCO.000.S-SPINACH	1.50
SP2I.C11.LCO.000.S-SPINACH	1.50
SP3I.C11.LCO.000.S-SPINACH	1.50
SPSI.C11.LCO.000.S-SPINACH	1.50
SQAI.C11.LCO.000.S-SQUASH	0.40
SS1I.C11.LCO.000.S-SORGHUM	6.00
SS2I.C11.LCO.000.S-SORGHUM	6.00
SS3I.C11.LCO.000.S-SORGHUM	6.00
TOBD.C11.LC2.000.S-TOBACCO	35.00
VCFD.C11.LCO.000.S-VETCH	10.00
VCGD.C11.LCO.000.S-VETCH	10.00
WMLD.C11.LCO.000.S-WATMELON	0.35
WMLI.C11.LCO.000.S-WATMELON	0.35

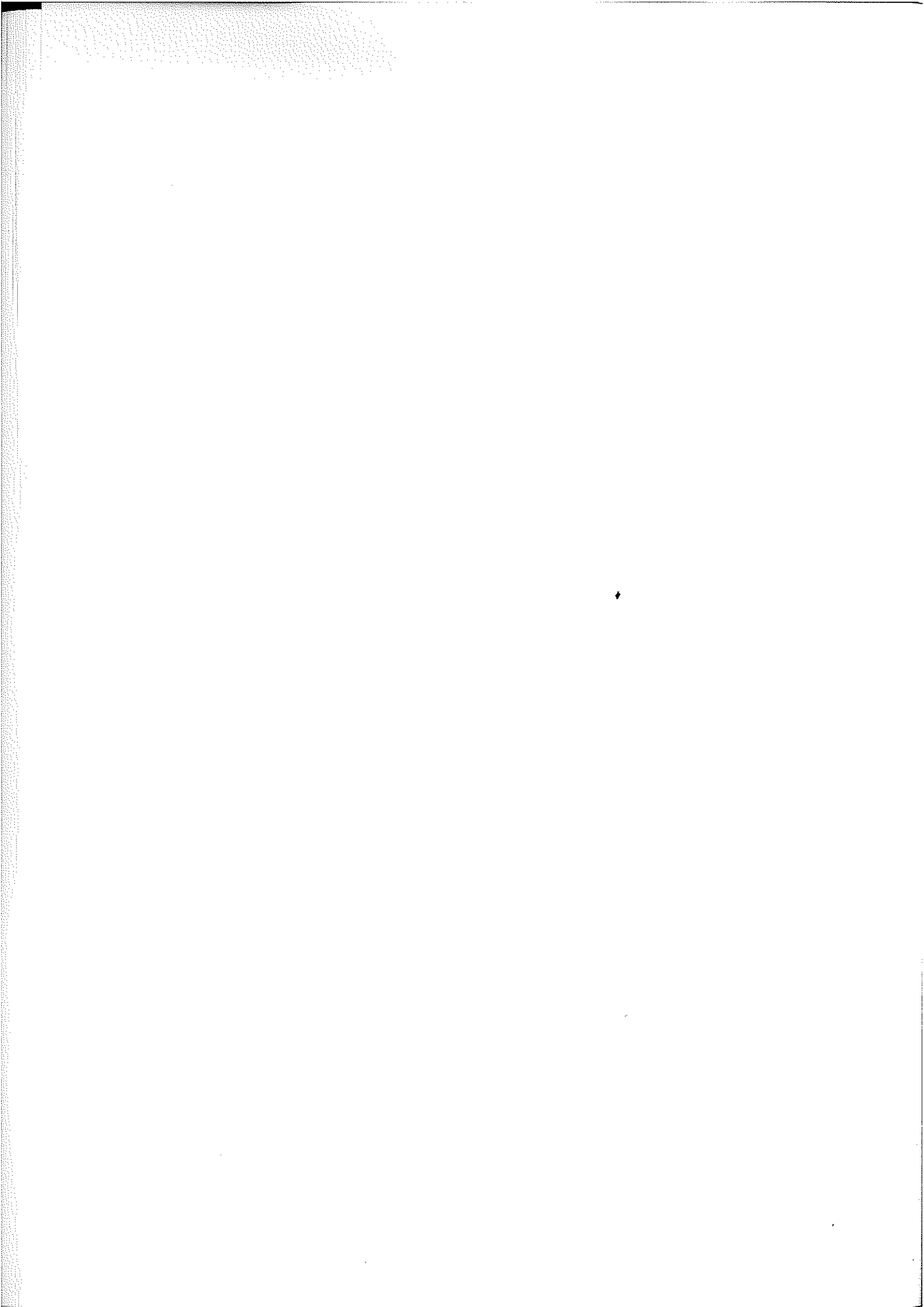
**APPENDIX E 5:**  
**FERTILIZER COEFFICIENTS**  
**(NUTRIENT KG PER DECAR)**



FERT. (NUTRIENT)	NITROGEN PHOSPHATE	
	kg/da	kg/da
ALFI.C11.LCO.000	4.0	12.0
BR1I.C11.LCO.000	12.0	8.0
BR2I.C11.LCO.000	12.0	8.0
BRLD.C11.LCO.000	7.0	4.5
CASI.C11.LCO.000	10.0	8.0
CAWI.C11.LCO.000	10.0	8.0
CB1I.C11.LCO.000	12.0	8.0
CB2I.C11.LCO.000	12.0	8.0
CB3I.C11.LCO.000	12.0	8.0
CC1I.C11.LCO.000	12.0	8.0
CC2I.C11.LCO.000	12.0	8.0
CG1I.C11.LCO.000	12.0	8.0
CG2I.C11.LCO.000	12.0	8.0
CG3I.C11.LCO.000	12.0	8.0
CH1I.C11.LCO.000	2.0	6.0
CH2I.C11.LCO.000	2.0	6.0
CH3I.C11.LCO.000	2.0	6.0
CHCD.C11.LCO.00	2.0	6.0
CLFI.C11.LCO.000	12.0	8.0
CS1I.C11.LCO.000	12.0	8.0
CS2I.C11.LCO.000	12.0	8.0
CS3I.C11.LCO.000	12.0	8.0
CT1I.C11.LCO.000	12.0	6.0
CT2I.C11.LCO.S00	12.0	6.0
CT3I.C11.LCO.S00	12.0	6.0
CTOI.C11.LCO.000	12.0	8.0
CW1I.C11.LCO.000	12.0	8.0
CW2I.C11.LCO.N00	12.0	8.0
CW3I.C11.LCO.S00	12.0	8.0
CWHD.C11.LCO.000	9.0	6.0
DBNI.C11.LCO.000	3.0	6.0
DW1I.C11.LCO.000	12.0	8.0
DW2I.C11.LCO.N00	12.0	8.0
DW3I.C11.LCO.S00	12.0	8.0
DWHD.C11.LCO.000	6.0	6.0
EG1I.C11.LCO.000	12.0	8.0
EG2I.C11.LCO.000	12.0	8.0
FTOI.C11.LCO.000	12.0	8.0
GN1I.C11.LCO.000	3.0	10.0
GN2I.C11.LCO.000	3.0	10.0
LEKI.C11.LCO.000	12.0	8.0
LNTD.C11.LCO.000	1.0	6.0
LNTI.C11.LCO.000	2.0	6.0
LT1I.C11.LCO.000	12.0	8.0
LT2I.C11.LCO.000	12.0	8.0
LT3I.C11.LCO.000	12.0	8.0
MELD.C11.LCO.000	8.0	6.0
MELI.C11.LCO.000	10.0	8.0
OKRI.C11.LCO.S00	12.0	8.0
ON1I.C11.LCO.000	10.0	8.0
ON2I.C11.LCO.000	10.0	8.0
ON3I.C11.LCO.000	10.0	8.0
ONSI.C11.LCO.000	8.0	6.0
PP1I.C11.LCO.000	12.0	8.0
PP2I.C11.LCO.000	12.0	8.0
PTEI.C11.LCO.000	16.0	16.0
PTLI.C11.LCO.000	16.0	16.0
RICI.C11.LCO.000	8.0	6.0

F E R T. (NUTRIENT)	NITROGEN PHOSPHATE	
	kg/da	kg/da
RYED.C11.LC0.000	4.0	5.0
SB1I.C11.LC0.000	2.0	8.0
SB2I.C11.LC0.000	2.0	8.0
SB3I.C11.LC0.000	2.0	8.0
SBTI.C11.LC0.000	14.0	14.0
SESD.C11.LC0.000	6.0	6.0
SG1I.C11.LC0.000	12.0	8.0
SG2I.C11.LC0.000	12.0	8.0
SG3I.C11.LC0.000	12.0	8.0
SN1I.C11.LC0.000	16.0	8.0
SN2I.C11.LC0.000	16.0	8.0
SN3I.C11.LC0.S00	16.0	8.0
SNFD.C11.LC0.000	8.0	6.0
SP1I.C11.LC0.000	12.0	8.0
SP2I.C11.LC0.000	12.0	8.0
SP3I.C11.LC0.000	12.0	8.0
SPSI.C11.LC0.000	8.0	6.0
SQAI.C11.LC0.000	12.0	8.0
SS1I.C11.LC0.000	12.0	8.0
SS2I.C11.LC0.000	12.0	8.0
SS3I.C11.LC0.000	12.0	8.0
TOBD.C11.LC2.000		
VCFD.C11.LC0.000	2.0	6.0
VCGD.C11.LC0.000	2.0	6.0
WMLD.C11.LC0.000	8.0	8.0
WMLI.C11.LC0.000	10.0	8.0
APPI.C11.LC0.000	3.0	5.0
APRI.C11.LC0.000	8.7	6.1
CRRI.C11.LC0.000	18.8	18.1
FGDI.C11.LC0.000	1.2	0.8
FGFI.C11.LC0.000	1.2	0.8
GRSI.C11.LC0.000	11.5	5.2
GRTD.C11.LC0.000	4.8	4.8
GRTI.C11.LC0.000	5.0	8.0
GRWD.C11.LC0.000	5.1	6.5
OLOD.C11.LC0.000	0.2	0.1
PARI.C11.LC0.000	7.5	7.5
PCFI.C11.LC0.000	11.1	2.5
PCPI.C11.LC0.000	3.0	9.0
PISD.C11.LC0.000	0.0	0.0
POMI.C11.LC0.000	6.2	6.8
WCRI.C11.LC0.000	5.0	8.0

**APPENDIX E 6:**  
**WATER COEFFICIENTS**  
**(MM)**





# WATER COEFFICIENTS

mm

WG02 WG03 WG04 WG05 WG6A WG6B WG6 WG7A WG7B WG7 WG8A WG8B WG8 WG09 WG10 WG11

ALFI.C11.LC1.N01		20	118	65	77	82	87	92	88	85	82	75	177	83	7
ALFI.C11.LC1.N03		9	93	57	70	75	82	89	85	81	78	70	155	52	
ALFI.C11.LC1.N2A		20	114	64	77	79	82	86	82	78	75	68	160	60	2
ALFI.C11.LC1.N2B		20	114	64	77	79	82	86	82	78	75	68	160	60	2
ALFI.C11.LC1.N4A		4	79	50	61	64	66	69	66	63	61	55	123	40	
ALFI.C11.LC1.N4B		6	81	50	62	64	66	69	66	63	61	55	124	41	
ALFI.C11.LC1.N4C		6	81	50	62	64	66	69	66	63	61	55	124	41	
ALFI.C11.LC1.NOP		32	120	64	76	79	82	86	82	78	75	68	159	68	5
ALFI.C11.LC1.S05	1	49	136	70	82	85	89	94	89	84	30	73	175	82	13
ALFI.C11.LC1.S06		27	124	66	78	80	83	86	82	79	76	67	145	62	5
ALFI.C11.LC1.S07		35	132	67	81	84	89	94	89	83	80	73	173	74	7
ALFI.C11.LC1.S08		22	131	65	74	77	80	83	79	73	69	62	142	61	5
ALFI.C11.LC1.S09		36	132	65	75	78	81	85	81	76	73	65	149	66	5
ALFI.C11.LC1.S10		12	106	60	71	71	71	72	69	66	63	58	139	66	3
ALFI.C11.LC1.S11		10	106	61	73	73	72	73	70	66	63	59	142	66	1
BR1I.C11.LC1.N01	13	58	111	28	8										
BR1I.C11.LC1.N03	7	39	87	25	7										
BR1I.C11.LC1.N2A	8	59	108	28	9										
BR1I.C11.LC1.N2B	8	59	108	28	9										
BR1I.C11.LC1.N4A		20	74	21	7										
BR1I.C11.LC1.N4B	3	29	76	21	7										
BR1I.C11.LC1.N4C	3	29	76	21	7										
BR1I.C11.LC1.NOP	20	73	113	28	8										
BR1I.C11.LC1.S05	6	38	86	48											
BR1I.C11.LC1.S06	1	21	63	49											
BR1I.C11.LC1.S07	3	31	74	52											
BR1I.C11.LC1.S08	2	18	57	45											
BR1I.C11.LC1.S09		23	73	55											
BR1I.C11.LC1.S10		4	41	37											
BR1I.C11.LC1.S11		1	36	35											
BR2I.C11.LC1.N01	14	58	76	4										1	
BR2I.C11.LC1.N03	7	39	57	4											
BR2I.C11.LC1.N2A	8	59	73	5											
BR2I.C11.LC1.N2B	8	59	73	5											
BR2I.C11.LC1.N4A		20	45	3											
BR2I.C11.LC1.N4B		20	45	3											
BR2I.C11.LC1.N4C		20	45	3											
BR2I.C11.LC1.NOP	8	59	73	5											
BR2I.C11.LC1.S05	7	38	72	17										3	3
BR2I.C11.LC1.S06	1	21	49	12										2	
BR2I.C11.LC1.S07	4	31	59	14										2	
BR2I.C11.LC1.S08	3	18	44	15										1	
BR2I.C11.LC1.S09		23	58	16										1	
BR2I.C11.LC1.S10		4	28	6										1	
BR2I.C11.LC1.S11		1	22	5										1	
CASI.C11.LC1.N01		19	124	69	81	86	87	83							
CASI.C11.LC1.N03		21	87	47	56	58	57	54							
CASI.C11.LC1.N2A		20	120	68	81	84	82	77							
CASI.C11.LC1.N2B		20	120	68	81	84	82	77							
CASI.C11.LC1.N4A		3	84	53	65	67	66	62							
CASI.C11.LC1.N4B		5	85	53	65	67	66	62							
CASI.C11.LC1.N4C		5	85	53	65	67	66	62							
CASI.C11.LC1.NOP		30	125	68	80	83	82	77							



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CG1I.C11.LC1.S06							30	32	42	64	79	74	147	20
CG1I.C11.LC1.S07							32	35	46	68	82	81	174	23
CG1I.C11.LC1.S08							29	31	40	59	71	69	142	18
CG1I.C11.LC1.S09							30	31	41	62	75	72	151	21
CG1I.C11.LC1.S10							26	26	35	53	65	64	140	21
CG1I.C11.LC1.S11							27	27	36	54	65	65	143	21
CG2I.C11.LC1.N01		6	106	76	91	96	102	102	84	65	15			
CG2I.C11.LC1.N03		1	83	67	82	88	96	98	81	62	14			
CG2I.C11.LC1.N2A		6	103	75	90	93	96	95	78	60	13			
CG2I.C11.LC1.N2B		6	103	75	90	93	96	95	78	60	13			
CG2I.C11.LC1.N4A			69	59	72	75	77	76	63	49	11			
CG2I.C11.LC1.N4B			69	59	72	75	77	76	63	49	11			
CG2I.C11.LC1.N4C			69	59	72	75	77	76	63	49	11			
CG2I.C11.LC1.NOP		6	103	75	90	93	96	95	78	60	13			
CG2I.C11.LC1.S05	3	43	152	80	93	97	95	85	66	5				
CG2I.C11.LC1.S06		22	139	76	89	91	88	78	60	5				
CG2I.C11.LC1.S07		30	148	79	92	96	95	85	65	5				
CG2I.C11.LC1.S08		19	146	74	85	87	85	75	58	4				
CG2I.C11.LC1.S09		31	147	74	85	88	86	77	59	4				
CG2I.C11.LC1.S10		11	120	69	81	81	75	65	50	4				
CG2I.C11.LC1.S11		10	120	70	83	83	77	66	51	4				
CG3I.C11.LC1.N01			21	28	49	73	97	112	107	101	88	65	36	
CG3I.C11.LC1.N03			16	24	45	67	92	108	103	96	84	61	33	
CG3I.C11.LC1.N2A			20	28	50	71	92	104	99	93	81	60	33	
CG3I.C11.LC1.N2B			20	28	50	71	92	104	99	93	81	60	33	
CG3I.C11.LC1.N4A			11	21	40	57	74	83	80	75	66	48	26	
CG3I.C11.LC1.N4B			11	21	40	57	74	83	80	75	66	48	26	
CG3I.C11.LC1.N4C			11	21	40	57	74	83	80	75	66	48	26	
CG3I.C11.LC1.NOP			20	28	50	71	92	104	99	93	81	60	33	
CG3I.C11.LC1.S05			63	61	90	101	106	112	100	79	61	8		
CG3I.C11.LC1.S06			55	58	86	95	98	102	92	75	58	8		
CG3I.C11.LC1.S07			58	60	90	101	106	112	100	79	61	8		
CG3I.C11.LC1.S08			60	57	83	92	95	99	88	69	53	7		
CG3I.C11.LC1.S09			61	57	83	92	97	101	90	72	55	8		
CG3I.C11.LC1.S10			41	53	79	85	85	86	77	62	48	7		
CG3I.C11.LC1.S11			40	54	81	86	86	87	78	63	48	7		
CH1I.C11.LC1.N01	14	58	138	57	52	38	11							
CH1I.C11.LC1.N03	7	39	110	51	47	35	11							
CH1I.C11.LC1.N2A	8	59	133	57	52	37	11							
CH1I.C11.LC1.N2B	8	59	133	57	52	37	11							
CH1I.C11.LC1.N4A		20	95	44	42	30	8							
CH1I.C11.LC1.N4B		20	95	44	42	30	8							
CH1I.C11.LC1.N4C		20	95	44	42	30	8							
CH1I.C11.LC1.NOP		8	59	133	57	52	37	11						
CH1I.C11.LC1.S05	8	38	91	104	23									
CH1I.C11.LC1.S06	1	21	67	99	25	3								1
CH1I.C11.LC1.S07	4	31	78	105	25	3								
CH1I.C11.LC1.S08	3	18	62	100	22									
CH1I.C11.LC1.S09		23	77	107	25	3								
CH1I.C11.LC1.S10		4	45	83	22	3								
CH1I.C11.LC1.S11		1	40	82	22	3								
CH2I.C11.LC1.N01		14	58	124	43	38	20							2
CH2I.C11.LC1.N03		7	39	98	38	34	18							





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CS1I.C11.LC1.S07								32	35	46	68	82	80	183	12
CS1I.C11.LC1.S08								29	31	40	59	71	69	149	8
CS1I.C11.LC1.S09								30	31	41	62	75	72	158	11
CS1I.C11.LC1.S10								26	26	35	53	65	64	147	11
CS1I.C11.LC1.S11								27	27	36	54	65	65	150	11
CS2I.C11.LC1.N01		6	102	74	91	96	102	107	95	47					
CS2I.C11.LC1.N03		1	79	65	82	88	96	103	92	45					
CS2I.C11.LC1.N2A		6	98	73	90	93	96	100	89	44					
CS2I.C11.LC1.N2B		6	98	73	90	93	96	100	89	44					
CS2I.C11.LC1.N4A			66	57	72	75	77	80	71	35					
CS2I.C11.LC1.N4B			66	57	72	75	77	80	71	35					
CS2I.C11.LC1.N4C			66	57	72	75	77	80	71	35					
CS2I.C11.LC1.NOP		6	98	73	90	93	96	100	89	44					
CS2I.C11.LC1.S05	3	43	152	80	93	97	98	94	32						
CS2I.C11.LC1.S06		22	139	76	89	91	90	86	29						
CS2I.C11.LC1.S07		30	148	79	92	96	97	94	32						
CS2I.C11.LC1.S08		19	146	74	85	87	87	83	28						
CS2I.C11.LC1.S09		31	147	74	85	88	89	85	29						
CS2I.C11.LC1.S10		11	120	69	81	81	78	72	25						
CS2I.C11.LC1.S11		10	120	70	83	83	79	73	25						
CS3I.C11.LC1.N01			21	28	48	71	95	112	107	102	95	76		6	
CS3I.C11.LC1.N03			16	24	44	65	90	108	103	98	90	71		5	
CS3I.C11.LC1.N2A			20	28	49	69	90	104	99	95	87	70		5	
CS3I.C11.LC1.N2B			20	28	49	69	90	104	99	95	87	70		5	
CS3I.C11.LC1.N4A			11	21	39	55	72	83	80	77	71	56		4	
CS3I.C11.LC1.N4B			11	21	39	55	72	83	80	77	71	56		4	
CS3I.C11.LC1.N4C			11	21	39	55	72	83	80	77	71	56		4	
CS3I.C11.LC1.NOP			20	28	49	69	90	104	99	95	87	70		5	
CS3I.C11.LC1.S05			63	61	90	101	106	112	102	87	37				
CS3I.C11.LC1.S06			55	58	86	95	98	102	94	82	35				
CS3I.C11.LC1.S07			58	60	90	101	106	112	102	86	36				
CS3I.C11.LC1.S08			60	57	83	92	95	99	90	76	32				
CS3I.C11.LC1.S09			61	57	83	92	97	101	92	79	33				
CS3I.C11.LC1.S10			41	53	79	85	85	86	79	68	29				
CS3I.C11.LC1.S11			40	54	81	86	86	87	80	69	29				
CT1I.C11.LC1.N01	2	50	41	61	76	93	109	107	102	99	90	204		70	
CT1I.C11.LC1.N03		35	36	55	70	88	105	103	98	94	84	179		42	
CT1I.C11.LC1.N2A	2	48	41	61	74	88	101	99	95	91	83	184		49	
CT1I.C11.LC1.N2B	2	48	41	61	74	88	101	99	95	91	83	184		49	
CT1I.C11.LC1.N4A		24	31	49	60	71	81	80	77	74	66	142		32	
CT1I.C11.LC1.N4B		26	31	49	60	71	81	80	77	74	66	143		33	
CT1I.C11.LC1.N4C		26	31	49	60	71	81	80	77	74	66	143		33	
CT1I.C11.LC1.NOP	4	53	41	61	74	88	101	99	94	91	82	183		57	
CT1I.C11.LC1.S05	25	94	70	94	103	108	114	108	96	82	67	74			
CT1I.C11.LC1.S06	8	83	65	88	97	100	104	99	93	83	65	80			
CT1I.C11.LC1.S07	13	77	62	86	99	108	114	108	101	91	75	119			
CT1I.C11.LC1.S08	6	90	65	86	93	97	101	95	84	72	57	60			
CT1I.C11.LC1.S09	14	79	59	79	91	99	103	98	92	83	67	103			
CT1I.C11.LC1.S10	1	58	54	76	84	86	87	83	79	72	59	95		70	
CT1I.C11.LC1.S11		56	55	77	85	88	88	84	80	73	60	97			
CT2I.C11.LC1.S05	9	60	47	70	88	105	116	110	103	98	89	179		31	
CT2I.C11.LC1.S06	4	52	45	67	83	97	106	101	97	94	81	149		24	
CT2I.C11.LC1.S07	6	56	47	70	87	105	116	110	103	98	88	178		28	



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EG1I.C11.LC1.S09	22	96	58	73	80	86	90	85	80	76	69	146	13
EG1I.C11.LC1.S10	4	74	53	70	74	75	76	72	69	66	61	136	13
EG1I.C11.LC1.S11	2	73	54	71	75	76	77	73	70	67	62	138	13
EG2I.C11.LC1.N01	3	46	37	54	65	79	93	96	94	90	82	195	82
EG2I.C11.LC1.N03		32	32	49	60	74	89	92	89	86	77	171	51
EG2I.C11.LC1.N2A	3	44	37	54	64	74	86	89	86	83	75	176	59
EG2I.C11.LC1.N2B	3	44	37	54	64	74	86	89	86	83	75	176	59
EG2I.C11.LC1.N4A		21	28	43	51	60	69	71	70	67	61	136	39
EG2I.C11.LC1.N4B		21	28	43	51	60	69	71	70	67	61	136	39
EG2I.C11.LC1.N4C		21	28	43	51	60	69	71	70	67	61	136	39
EG2I.C11.LC1.NOP	3	44	37	54	64	74	86	89	86	83	75	176	59
EG2I.C11.LC1.S05	27	75	52	70	81	95	104	99	92	88	81	182	35
EG2I.C11.LC1.S06	8	66	50	67	77	87	95	91	87	84	74	151	28
EG2I.C11.LC1.S07	14	70	52	69	81	94	104	99	92	88	81	180	33
EG2I.C11.LC1.S08	6	72	49	64	74	85	92	87	81	76	69	147	27
EG2I.C11.LC1.S09	15	73	49	64	74	86	94	89	84	80	72	155	29
EG2I.C11.LC1.S10	1	52	45	62	69	75	79	76	72	69	64	145	29
EG2I.C11.LC1.S11		50	46	63	70	76	81	77	73	70	65	148	30
FTOI.C11.LC1.N01	6	82	67	92	104	110	117	112	107	103	90	136	
FTOI.C11.LC1.N03		63	59	83	95	104	112	107	102	98	84	121	
FTOI.C11.LC1.N2A	5	79	66	91	100	104	109	104	99	95	83	124	
FTOI.C11.LC1.N2B	5	79	66	91	100	104	109	104	99	95	83	124	
FTOI.C11.LC1.N4A		50	52	73	81	84	87	83	80	77	66	96	
FTOI.C11.LC1.N4B		52	52	73	81	84	87	83	80	77	66	96	
FTOI.C11.LC1.N4C		52	52	73	81	84	87	83	80	77	66	96	
FTOI.C11.LC1.NOP	15	84	66	91	100	104	109	104	99	95	82	123	
FTOI.C11.LC1.S05	3	39	149	89	103	107	113	119	113	98	77	55	4
FTOI.C11.LC1.S06	14	131	84	99	101	105	109	104	93	76	52	7	
FTOI.C11.LC1.S07		21	138	88	103	107	113	119	113	98	79	57	8
FTOI.C11.LC1.S08		14	143	83	94	97	101	105	99	86	67	47	3
FTOI.C11.LC1.S09	22	138	82	95	98	103	107	102	90	72	51	7	
FTOI.C11.LC1.S10		5	112	76	90	90	90	91	87	77	62	45	6
FTOI.C11.LC1.S11		4	112	78	92	92	91	92	88	78	63	46	6
GN1I.C11.LC1.N01	2	66	57	80	90	96	102	94	77	59			
GN1I.C11.LC1.N03		49	51	72	83	91	98	90	74	57			
GN1I.C11.LC1.N2A	7	63	57	80	88	91	95	87	71	55			
GN1I.C11.LC1.N2B	7	63	57	80	88	91	95	87	71	55			
GN1I.C11.LC1.N4A		36	44	64	70	73	76	70	58	44			
GN1I.C11.LC1.N4B		36	44	64	70	73	76	70	58	44			
GN1I.C11.LC1.N4C		36	44	64	70	73	76	70	58	44			
GN1I.C11.LC1.NOP	7	63	57	80	88	91	95	87	71	55			
GN1I.C11.LC1.S05				19	40	47	65	80	88	88	81	182	26
GN1I.C11.LC1.S06				18	38	43	59	74	83	84	74	157	29
GN1I.C11.LC1.S07					39	42	54	70	83	88	81	190	47
GN1I.C11.LC1.S08				17	36	42	57	70	77	76	69	147	20
GN1I.C11.LC1.S09					36	38	49	64	76	80	72	164	42
GN1I.C11.LC1.S10					34	34	42	54	66	69	64	152	43
GN1I.C11.LC1.S11					34	34	42	55	66	70	65	155	44
GN2I.C11.LC1.N01		21	27	45	62	82	99	98	94	90	79	109	
GN2I.C11.LC1.N03		16	24	40	57	78	95	94	89	86	74	97	
GN2I.C11.LC1.N2A		20	27	45	61	78	92	91	86	83	73	99	
GN2I.C11.LC1.N2B		20	27	45	61	78	92	91	86	83	73	99	
GN2I.C11.LC1.N4A		11	20	36	49	62	74	73	70	67	58	77	







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OKRI.C11.LC1.S11			74	68	85	84	84	84	81	77	73	66	124	22	
ON1I.C11.LC1.N01	8	48	124	64	73	74	75	61					53	46	9
ON1I.C11.LC1.N03	3	29	98	56	66	68	71	59					45	24	1
ON1I.C11.LC1.N2A	4	48	120	63	73	72	71	57					48	29	3
ON1I.C11.LC1.N2B	4	48	120	63	73	72	71	57					48	29	3
ON1I.C11.LC1.N4A		12	84	49	58	58	57	45					91	44	
ON1I.C11.LC1.N4B		20	86	50	59	58	57	45					36	17	
ON1I.C11.LC1.N4C		20	86	50	59	58	57	45					36	17	
ON1I.C11.LC1.NOP		15	62	125	63	72	71	57					47	37	7
ON1I.C11.LC1.S05	4	31	80	133	60	53							25	38	16
ON1I.C11.LC1.S06		14	56	124	58	66	19						20	27	3
ON1I.C11.LC1.S07	2	23	66	132	60	68	20						24	30	7
ON1I.C11.LC1.S08		11	51	128	56	49							19	25	5
ON1I.C11.LC1.S09		16	66	131	57	63	19						20	28	4
ON1I.C11.LC1.S10		1	35	106	53	60	17						20	29	2
ON1I.C11.LC1.S11			30	106	54	62	18						20	28	
ON2I.C11.LC1.N01	8	48	122	60	68	68	21					19	90	75	12
ON2I.C11.LC1.N03	3	29	96	52	61	63	20					17	78	45	2
ON2I.C11.LC1.N2A	4	48	118	59	68	66	20					17	82	53	5
ON2I.C11.LC1.N2B	4	48	118	59	68	66	20					17	82	53	5
ON2I.C11.LC1.N4A		12	82	46	54	53	16					14	61	34	
ON2I.C11.LC1.N4B		12	82	46	54	53	16					14	61	34	
ON2I.C11.LC1.N4C		12	82	46	54	53	16					14	61	34	
ON2I.C11.LC1.NOP		4	48	118	59	68	66	20				17	82	53	5
ON2I.C11.LC1.S05	4	31	79	123	33								72	63	22
ON2I.C11.LC1.S06		14	55	111	31								59	47	7
ON2I.C11.LC1.S07	2	23	65	118	32								70	55	14
ON2I.C11.LC1.S08		11	50	118	31								57	45	10
ON2I.C11.LC1.S09		16	65	119	31								61	50	10
ON2I.C11.LC1.S10		1	34	95	28								57	50	6
ON2I.C11.LC1.S11			29	94	29								58	49	4
ON3I.C11.LC1.N01	8	48	124	65	77	80	81	83	75				14	32	2
ON3I.C11.LC1.N03	3	29	98	57	70	74	77	80	72				11	14	
ON3I.C11.LC1.N2A	4	48	120	64	77	78	77	77	70				12	17	
ON3I.C11.LC1.N2B	4	48	120	64	77	78	77	77	70				12	17	
ON3I.C11.LC1.N4A		12	84	50	61	62	62	62	56				9	10	
ON3I.C11.LC1.N4B		12	84	50	61	62	62	62	56				9	10	
ON3I.C11.LC1.N4C		12	84	50	61	62	62	62	56				9	10	
ON3I.C11.LC1.NOP		4	48	120	64	77	78	77	77	70			12	17	
ON3I.C11.LC1.S05	4	31	80	142	66	73	72	36						30	8
ON3I.C11.LC1.S06		14	56	129	63	70	68	33						20	1
ON3I.C11.LC1.S07	2	23	66	137	65	72	71	36						23	3
ON3I.C11.LC1.S08		11	51	136	62	67	65	32						18	2
ON3I.C11.LC1.S09		16	66	137	62	67	66	32						20	1
ON3I.C11.LC1.S10		1	35	111	57	64	61	28						22	
ON3I.C11.LC1.S11			30	105	58	66	62	29						20	
ONSI.C11.LC1.N01		34	133	69	81	86	90	91	82	74	14				
ONSI.C11.LC1.N03		20	106	60	74	79	85	88	79	8	13				
ONSI.C11.LC1.N2A		34	128	68	81	84	85	85	76	69	12				
ONSI.C11.LC1.N2B		34	128	68	81	84	85	85	76	69	12				
ONSI.C11.LC1.N4A		11	91	53	65	67	68	68	61	56	10				
ONSI.C11.LC1.N4B		14	93	53	65	67	68	68	61	56	10				
ONSI.C11.LC1.N4C		14	93	53	65	67	68	68	61	56	10				







# WATER COEFFICIENTS

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WG02 WG03 WG04 WG05 WG6A WG6B WG6 WG7A WG7B WG7 WG8A WG8B WG8 WG09 WG10 WG11

		WG02	WG03	WG04	WG05	WG6A	WG6B	WG6	WG7A	WG7B	WG7	WG8A	WG8B	WG8	WG09	WG10	WG11
SG2I.C11.LC1.N03		1		77	62	78	84	92	99	91	76	59	20				
SG2I.C11.LC1.N2A		6		96	70	86	89	92	96	88	73	57	20				
SG2I.C11.LC1.N2B		6		96	70	86	89	92	96	88	73	57	20				
SG2I.C11.LC1.N4A				63	55	69	71	74	77	71	59	46	16				
SG2I.C11.LC1.N4B				63	55	69	71	74	77	71	59	46	16				
SG2I.C11.LC1.N4C				63	55	69	71	74	77	71	59	46	16				
SG2I.C11.LC1.NOP		6		96	70	86	89	92	96	88	73	57	20				
SG2I.C11.LC1.S05	3	42		142	75	88	91	96	96	78	59	13					
SG2I.C11.LC1.S06		21		130	71	84	86	89	87	72	56	13					
SG2I.C11.LC1.S07		29		137	74	87	91	96	96	78	59	13					
SG2I.C11.LC1.S08		17		136	70	80	82	86	85	69	52	11					
SG2I.C11.LC1.S09		30		137	70	80	83	87	86	71	54	12	48		9		
SG2I.C11.LC1.S10		10		111	65	77	77	76	73	60	47	10					
SG2I.C11.LC1.S11		8		109	66	78	78	78	74	61	47	10					
SG3I.C11.LC1.N01				22	28	49	70	92	107	102	98	95	82		117		
SG3I.C11.LC1.N03				17	25	44	64	87	103	98	93	90	77		65		
SG3I.C11.LC1.N2A				21	29	49	68	87	100	95	90	87	75		107		
SG3I.C11.LC1.N2B				21	29	49	68	87	100	95	90	87	75		107		
SG3I.C11.LC1.N4A				11	21	39	54	70	80	76	73	71	60		82		
SG3I.C11.LC1.N4B				11	21	39	54	70	80	76	73	71	60		82		
SG3I.C11.LC1.N4C				11	21	39	54	70	80	76	73	71	60		82		
SG3I.C11.LC1.NOP				21	29	49	68	87	100	95	90	87	75		107		
SG3I.C11.LC1.S05				64	56	83	97	103	108	103	90	73	53		11		
SG3I.C11.LC1.S06				56	53	79	91	95	99	94	85	70	49		9		
SG3I.C11.LC1.S07				60	55	82	96	102	108	102	90	73	53		11		
SG3I.C11.LC1.S08				61	52	76	87	92	96	90	79	64	45		9		
SG3I.C11.LC1.S09				62	52	76	88	93	98	92	82	67	48		9		
SG3I.C11.LC1.S10				42	46	70	79	82	83	79	75	67	5				
SG3I.C11.LC1.S11				41	49	75	83	83	84	80	72	58	43		9		
SN1I.C11.LC1.N01		6		90	70	91	99	106	112	107	102	93	70		56		
SN1I.C11.LC1.N03				69	61	82	91	100	108	103	98	89	65		50		
SN1I.C11.LC1.N2A		5		87	69	91	96	100	104	99	95	86	64		51		
SN1I.C11.LC1.N2B		5		87	69	91	96	100	104	99	95	86	64		51		
SN1I.C11.LC1.N4A				56	54	72	77	80	83	80	77	70	51		40		
SN1I.C11.LC1.N4B				58	54	73	77	80	84	80	77	70	51		40		
SN1I.C11.LC1.N4C				58	54	73	77	80	84	80	77	70	51		40		
SN1I.C11.LC1.NOP		15		92	69	90	96	100	104	99	94	86	64		50		
SN1I.C11.LC1.S05	3	43		153	85	99	103	108	114	96	69	42					
SN1I.C11.LC1.S06		22		140	81	94	97	100	104	89	65	42	2				
SN1I.C11.LC1.S07		25		139	84	98	102	108	114	103	80	55	18				
SN1I.C11.LC1.S08		18		147	79	90	93	97	101	84	59	36					
SN1I.C11.LC1.S09		26		138	79	91	94	99	103	93	73	50	16				
SN1I.C11.LC1.S10		8		113	74	87	86	86	87	80	63	43	14		56		
SN1I.C11.LC1.S11		6		112	75	88	88	88	88	81	64	44	15				
SN2I.C11.LC1.N01		4		56	51	74	91	105	112	107	102	99	83		99		
SN2I.C11.LC1.N03				41	45	67	84	99	108	103	98	94	78		88		
SN2I.C11.LC1.N2A		3		54	51	74	89	99	104	99	95	91	76		90		
SN2I.C11.LC1.N2B		3		54	51	74	89	99	104	99	95	91	76		90		
SN2I.C11.LC1.N4A				29	39	59	71	80	83	80	77	74	61		70		
SN2I.C11.LC1.N4B				29	39	59	71	80	83	80	77	74	61		70		
SN2I.C11.LC1.N4C				29	39	59	71	80	83	80	77	74	61		70		
SN2I.C11.LC1.NOP		3		54	51	74	89	99	104	99	95	91	76		90		
SN2I.C11.LC1.S05		29		119	79	96	99	105	110	105	88	63	39		2		

WATER COEFFICIENTS

mm

WG02 WG03 WG04 WG05 WG6A WG6B WG6 WG7A WG7B WG7 WG8A WG8B WG8 WG09 WG10 WG11

	WG02	WG03	WG04	WG05	WG6A	WG6B	WG6	WG7A	WG7B	WG7	WG8A	WG8B	WG8	WG09	WG10	WG11
SN2I.C11.LC1.S06	10	108	75	91	93	97	101	96	83	61	35	2				
SN2I.C11.LC1.S07	16	115	78	95	99	104	110	104	88	63	38	2				
SN2I.C11.LC1.S08	7	114	74	87	90	94	97	92	77	55	33	1				
SN2I.C11.LC1.S09	17	115	74	88	91	95	99	94	80	58	34	2				
SN2I.C11.LC1.S10	3	91	68	84	83	83	84	80	69	50	30	1				
SN2I.C11.LC1.S11	1	90	69	85	85	85	85	82	70	50	31	1				
SN3I.C11.LC1.S05	16	79	61	85	99	108	114	108	101	96	81	95				
SN3I.C11.LC1.S06	7	70	58	81	93	100	104	99	96	92	74	80				
SN3I.C11.LC1.S07	10	74	60	84	98	108	114	108	101	96	80	94				
SN3I.C11.LC1.S08	5	75	57	77	90	97	101	95	89	84	69	77				
SN3I.C11.LC1.S09	11	76	57	78	90	99	103	98	92	88	72	81				
SN3I.C11.LC1.S10	1	55	53	74	83	86	87	83	79	76	64	75				
SN3I.C11.LC1.S11		54	54	76	85	88	88	84	80	77	65	77				
SP1I.C11.LC1.N01												24	48	12		
SP1I.C11.LC1.N03												20	25	2		
SP1I.C11.LC1.N2A												21	30	5		
SP1I.C11.LC1.N2B												21	30	5		
SP1I.C11.LC1.N4A												15	17			
SP1I.C11.LC1.N4B												15	18			
SP1I.C11.LC1.N4C												15	18			
SP1I.C11.LC1.NOP												22	38	10		
SP1I.C11.LC1.S05													39	20		
SP1I.C11.LC1.S06													28	6		
SP1I.C11.LC1.S07													26	9		
SP1I.C11.LC1.S08													25	8		
SP1I.C11.LC1.S09													23	6		
SP1I.C11.LC1.S10													25	2		
SP1I.C11.LC1.S11													23			
SP2I.C11.LC1.N01												77	60			
SP2I.C11.LC1.N03												67	40			
SP2I.C11.LC1.N2A												70	45			
SP2I.C11.LC1.N2B												70	45			
SP2I.C11.LC1.N4A												52	32			
SP2I.C11.LC1.N4B												52	32			
SP2I.C11.LC1.N4C												52	32			
SP2I.C11.LC1.NOP												70	45			
SP2I.C11.LC1.S05												29	64	5		
SP2I.C11.LC1.S06												23	47	2		
SP2I.C11.LC1.S07												28	56	4		
SP2I.C11.LC1.S08												22	46	3		
SP2I.C11.LC1.S09												24	50	3		
SP2I.C11.LC1.S10												23	51	2		
SP2I.C11.LC1.S11												23	50	1		
SP3I.C11.LC1.N01														25		
SP3I.C11.LC1.N03														10		
SP3I.C11.LC1.N2A														13		
SP3I.C11.LC1.N2B														13		
SP3I.C11.LC1.N4A														7		
SP3I.C11.LC1.N4B														7		
SP3I.C11.LC1.N4C														7		
SP3I.C11.LC1.NOP														13		
SP3I.C11.LC1.S05														15	3	
SP3I.C11.LC1.S06														6		



# WATER COEFFICIENTS

mm

	WG02	WG03	WG04	WG05	WG6A	WG6B	WG6	WG7A	WG7B	WG7	WG8A	WG8B	WG8	WG09	WG10	WG11	
SP3I.C11.LC1.S07																7	1
SP3I.C11.LC1.S08																6	1
SP3I.C11.LC1.S09																6	
SP3I.C11.LC1.S10																6	
SP3I.C11.LC1.S11																5	
SPSI.C11.LC1.N01			28	71													
SPSI.C11.LC1.N03			15	53													
SPSI.C11.LC1.N2A			36	60													
SPSI.C11.LC1.N2B			36	60													
SPSI.C11.LC1.N4A			26	118													
SPSI.C11.LC1.N4B			10	46													
SPSI.C11.LC1.N4C			10	46													
SPSI.C11.LC1.NOP			41	72													
SPSI.C11.LC1.S05	12		27														
SPSI.C11.LC1.S06	18		51														
SPSI.C11.LC1.S07	2		50														
SPSI.C11.LC1.S08	3		14														
SPSI.C11.LC1.S09			78														
SPSI.C11.LC1.S10			22														
SPSI.C11.LC1.S11			19														
SQAI.C11.LC1.N01			41	39	60	76	87	92	85	73							
SQAI.C11.LC1.N03			29	34	54	70	82	89	82	69							
SQAI.C11.LC1.N2A			39	39	60	74	82	86	79	67							
SQAI.C11.LC1.N2B			39	39	60	74	82	86	79	67							
SQAI.C11.LC1.N4A			20	30	48	59	66	69	64	54							
SQAI.C11.LC1.N4B			21	30	48	59	66	69	64	54							
SQAI.C11.LC1.N4C			21	30	48	59	66	69	64	54							
SQAI.C11.LC1.NOP			43	39	59	73	82	86	79	67							
SQAI.C11.LC1.S05	19		98	68	82	84	81	22									
SQAI.C11.LC1.S06	6		86	63	78	80	77	34									
SQAI.C11.LC1.S07	9		81	63	81	84	86	81									
SQAI.C11.LC1.S08	5		94	63	74	76	72	19									
SQAI.C11.LC1.S09	10		83	60	75	78	78	73									
SQAI.C11.LC1.S10			62	55	71	71	69	62									
SQAI.C11.LC1.S11			60	56	73	74	70	63									
SS1I.C11.LC1.N01							29	31	41	61	80	82	196	59			
SS1I.C11.LC1.N03							27	30	39	58	76	77	172	41			
SS1I.C11.LC1.N2A							27	29	38	56	73	75	176	46			
SS1I.C11.LC1.N2B							27	29	38	56	73	75	176	46			
SS1I.C11.LC1.N4A							22	23	31	46	60	61	137	33			
SS1I.C11.LC1.N4B							22	23	31	46	60	61	137	33			
SS1I.C11.LC1.N4C							22	23	31	46	60	61	137	33			
SS1I.C11.LC1.NOP							27	29	38	56	73	75	176	49			
SS1I.C11.LC1.S05							30	32	42	60	78	81	194	38			
SS1I.C11.LC1.S06							28	29	38	57	75	74	161	30			
SS1I.C11.LC1.S07							29	32	41	60	78	81	192	36			
SS1I.C11.LC1.S08							27	28	36	53	68	69	157	30			
SS1I.C11.LC1.S09							27	29	37	55	71	72	157	32			
SS1I.C11.LC1.S10							24	24	32	47	61	64	153	31			
SS1I.C11.LC1.S11							24	25	32	48	62	65	157	32			
SS2I.C11.LC1.N01			6	97	70	87	91	97	103	99	52						
SS2I.C11.LC1.N03			1	75	61	78	84	92	99	95	50						
SS2I.C11.LC1.N2A			6	93	69	86	89	92	96	92	48						



# WATER COEFFICIENTS

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WG02 WG03 WG04 WG05 WG6A WG6B WG6 WG7A WG7B WG7 WG8A WG8B WG8 WG09 WG10 WG11

APRI.C11.LC1.N2A		17	86	53	66	71	75	81	78	74	71	62	133	35	
APRI.C11.LC1.N2B		17	86	53	66	71	75	81	78	74	71	62	133	35	
APRI.C11.LC1.N4A		1	55	41	53	57	60	65	62	60	57	50	102	22	
APRI.C11.LC1.N4B		3	57	41	53	57	61	65	63	60	57	50	102	22	
APRI.C11.LC1.N4C		3	57	41	53	57	61	65	63	60	57	50	102	22	
APRI.C11.LC1.NOP		17	86	53	66	71	75	81	78	74	71	62	133	35	
APRI.C11.LC1.S05	5	47	106	57	70	75	82	89	85	79	75	67	145	55	5
APRI.C11.LC1.S06		26	96	55	67	71	76	81	78	75	72	61	120	40	1
APRI.C11.LC1.S07	2	33	102	57	69	75	82	88	85	79	75	66	143	47	2
APRI.C11.LC1.S08		19	102	54	64	68	73	78	74	69	65	56	117	39	1
APRI.C11.LC1.S09	1	34	103	54	64	69	75	80	76	72	68	59	124	42	8
APRI.C11.LC1.S10		9	80	50	62	64	65	68	65	62	59	53	116	43	
APRI.C11.LC1.S11		7	79	50	63	65	66	69	66	63	60	53	118	42	
CRRI.C11.LC1.N01		21	99	59	73	80	89	96	93	88	82	72	158	63	3
CRRI.C11.LC1.N03		8	77	52	66	74	84	93	89	83	78	67	139	37	
CRRI.C11.LC1.N2A		20	96	58	73	78	84	90	86	81	75	66	143	43	
CRRI.C11.LC1.N2B		20	96	58	73	78	84	90	86	81	75	66	143	43	
CRRI.C11.LC1.N4A		3	64	45	58	62	67	72	69	66	61	53	110	27	
CRRI.C11.LC1.N4B		5	66	45	58	63	67	72	69	66	61	53	110	28	
CRRI.C11.LC1.N4C		5	66	45	58	63	67	72	69	66	61	53	110	28	
CRRI.C11.LC1.NOP		20	96	58	73	78	84	90	86	81	75	66	143	43	
CRRI.C11.LC1.S05	6	51	116	63	77	83	91	98	94	87	80	71	157	63	9
CRRI.C11.LC1.S06		29	105	60	74	79	84	90	87	82	76	65	130	47	3
CRRI.C11.LC1.S07	2	38	112	62	76	83	91	98	94	86	80	70	155	55	4
CRRI.C11.LC1.S08		23	112	59	70	75	81	87	83	76	69	60	127	46	3
CRRI.C11.LC1.S09	1	38	112	59	71	76	83	89	85	79	73	63	134	50	3
CRRI.C11.LC1.S10		12	89	54	68	70	72	75	72	68	63	56	125	50	
CRRI.C11.LC1.S11		9	88	55	69	71	74	76	73	69	63	56	127	50	
FGDI.C11.LC1.N01		4	56	38	50	55	61	67	65	62	59	52	110	32	
FGDI.C11.LC1.N03			40	34	45	51	58	65	63	59	57	49	97	17	
FGDI.C11.LC1.N2A		4	53	39	50	54	58	63	60	57	55	48	100	19	
FGDI.C11.LC1.N2B		4	53	39	50	54	58	63	60	57	55	48	100	19	
FGDI.C11.LC1.N4A			28	29	40	43	47	50	49	47	44	38	76	12	
FGDI.C11.LC1.N4B			30	29	40	43	47	50	49	47	44	38	76	12	
FGDI.C11.LC1.N4C			30	29	40	43	47	50	49	47	44	38	76	12	
FGDI.C11.LC1.NOP		4	53	39	50	54	58	63	60	57	55	48	100	19	
FGDI.C11.LC1.S05		24	71	42	53	58	63	69	66	62	58	51	110	36	2
FGDI.C11.LC1.S06		7	63	40	51	54	59	63	60	58	55	47	91	25	
FGDI.C11.LC1.S07		11	67	41	52	57	63	69	66	61	58	51	108	29	
FGDI.C11.LC1.S08		5	68	39	48	52	57	61	40	54	50	43	88	23	
FGDI.C11.LC1.S09		13	69	39	49	53	58	62	42	56	53	46	93	26	
FGDI.C11.LC1.S10		1	49	36	47	49	50	52	35	48	46	40	88	28	
FGDI.C11.LC1.S11			47	37	48	50	51	53	36	49	46	41	89	26	
FGFI.C11.LC1.N01		4	56	38	50	55	61	67	65	62	59	52	110	32	
FGFI.C11.LC1.N03			40	34	45	51	58	65	63	59	57	49	97	17	
FGFI.C11.LC1.N2A		4	53	39	50	54	58	63	60	57	55	48	100	19	
FGFI.C11.LC1.N2B		4	53	39	50	54	58	63	60	57	55	48	100	19	
FGFI.C11.LC1.N4A			28	29	40	43	47	50	49	47	44	38	76	12	
FGFI.C11.LC1.N4B			30	29	40	43	47	50	49	47	44	38	76	12	
FGFI.C11.LC1.N4C			30	29	40	43	47	50	49	47	44	38	76	12	
FGFI.C11.LC1.NOP		4	53	39	50	54	58	63	60	57	55	48	100	19	
FGFI.C11.LC1.S05		24	71	42	53	58	63	69	66	62	58	51	110	36	2
FGFI.C11.LC1.S06		7	63	40	51	54	59	63	60	58	55	47	91	25	
FGFI.C11.LC1.S07		11	67	41	52	57	63	69	66	61	58	51	108	29	
FGFI.C11.LC1.S08		5	68	39	48	52	57	61	40	54	50	43	88	23	
FGFI.C11.LC1.S09		13	69	39	49	53	58	62	42	56	53	46	93	26	
FGFI.C11.LC1.S10		1	49	36	47	49	50	52	35	48	46	40	88	28	
FGFI.C11.LC1.S11			47	37	48	50	51	53	36	49	46	41	89	26	
FGFI.C11.LC1.N01		4	56	38	50	55	61	67	65	62	59	52	110	32	
FGFI.C11.LC1.N03			40	34	45	51	58	65	63	59	57	49	97	17	
FGFI.C11.LC1.N2A		4	53	39	50	54	58	63	60	57	55	48	100	19	
FGFI.C11.LC1.N2B		4	53	39	50	54	58	63	60	57	55	48	100	19	
FGFI.C11.LC1.N4A			28	29	40	43	47	50	49	47	44	38	76	12	
FGFI.C11.LC1.N4B			30	29	40	43	47	50	49	47	44	38	76	12	
FGFI.C11.LC1.N4C			30	29	40	43	47	50	49	47	44	38	76	12	
FGFI.C11.LC1.NOP		4	53	39	50	54	58	63	60	57	55	48	100	19	
FGFI.C11.LC1.S05		24	71	42	53	58	63	69	66	62	58	51	110	36	2
FGFI.C11.LC1.S06		7	63	40	51	54	59	63	60	58	55	47	91	25	

WATER COEFFICIENTS

mm

WG02 WG03 WG04 WG05 WG6A WG6B WG6 WG7A WG7B WG7 WG8AWG8B WG8 WG09 WG10 WG11

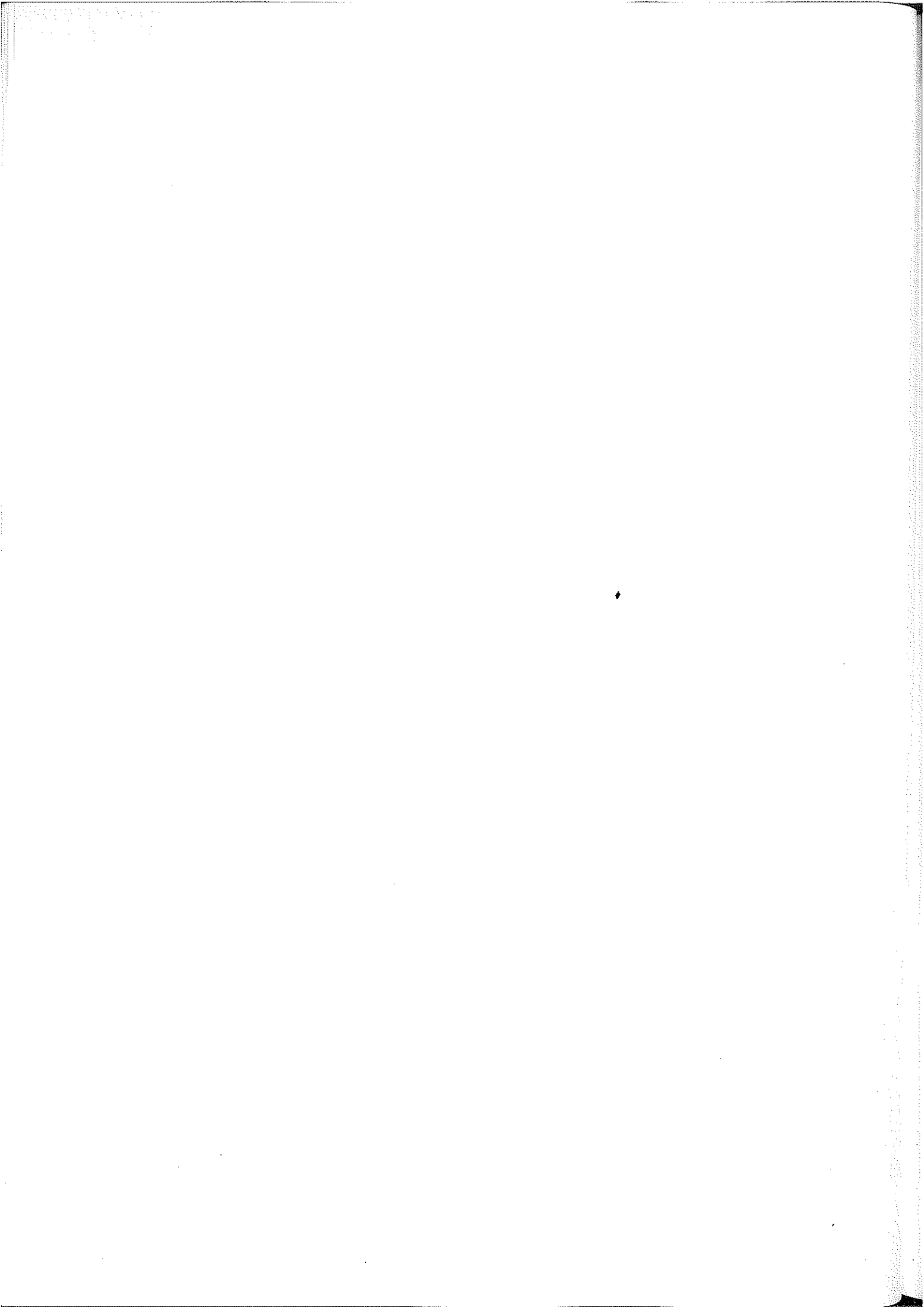
FGFI.C11.LC1.S07	11	67	41	52	57	63	69	66	61	58	51	108	29		
FGFI.C11.LC1.S08	5	68	39	48	52	57	61	40	54	50	43	88	23		
FGFI.C11.LC1.S09	13	69	39	49	53	58	62	42	56	53	46	93	26		
FGFI.C11.LC1.S10	1	49	36	47	49	50	52	35	48	46	40	88	28		
FGFI.C11.LC1.S11		47	37	48	50	51	53	36	49	46	41	89	26		
GRSI.C11.LC1.N01	4	56	38	50	55	61	67	65	62	59	52	110	32		
GRSI.C11.LC1.N03		40	34	45	51	58	65	63	59	57	49	97	17		
GRSI.C11.LC1.N2A	4	53	39	50	54	58	63	60	57	55	48	100	19		
GRSI.C11.LC1.N2B	4	53	39	50	54	58	63	60	57	55	48	100	19		
GRSI.C11.LC1.N4A		28	29	40	43	47	50	49	47	44	38	76	12		
GRSI.C11.LC1.N4B		30	29	40	43	47	50	49	47	44	12	76	12		
GRSI.C11.LC1.N4C		30	29	40	43	47	50	49	47	44	55	76	12		
GRSI.C11.LC1.NOP	4	53	39	50	54	58	63	60	57	55	48	100	19		
GRSI.C11.LC1.S05	24	71	42	53	58	63	69	66	62	58	51	110	36	2	
GRSI.C11.LC1.S06	7	63	40	51	54	59	63	60	58	55	47	91	25		
GRSI.C11.LC1.S07	11	67	41	52	57	63	69	66	61	58	51	108	29		
GRSI.C11.LC1.S08	5	68	39	48	52	57	61	58	54	50	43	88	23		
GRSI.C11.LC1.S09	13	69	39	49	53	58	62	59	56	53	46	93	26		
GRSI.C11.LC1.S10	1	49	36	47	49	50	52	51	48	46	40	88	28		
GRSI.C11.LC1.S11		47	37	48	50	51	53	51	49	46	41	89	26		
GRTI.C11.LC1.N01	4	56	38	50	55	61	67	65	62	59	52	110	32		
GRTI.C11.LC1.N03		40	34	45	51	58	65	63	59	57	49	97	17		
GRTI.C11.LC1.N2A	4	53	39	50	54	58	63	60	57	55	48	100	19		
GRTI.C11.LC1.N2B	4	53	39	50	54	58	63	60	57	55	48	100	19		
GRTI.C11.LC1.N4A		28	29	40	43	47	50	49	47	44	38	76	12		
GRTI.C11.LC1.N4B		30	29	40	43	47	50	49	47	44	12	76	12		
GRTI.C11.LC1.N4C		30	29	40	43	47	50	49	47	44	55	76	12		
GRTI.C11.LC1.NOP	4	53	39	50	54	58	63	60	57	55	48	100	19		
GRTI.C11.LC1.S05	24	71	42	53	58	63	69	66	62	58	51	110	36	2	
GRTI.C11.LC1.S06	7	63	40	51	54	59	63	60	58	55	47	91	25		
GRTI.C11.LC1.S07	11	67	41	52	57	63	69	66	61	58	51	108	29		
GRTI.C11.LC1.S08	5	68	39	48	52	57	61	58	54	50	43	88	23		
GRTI.C11.LC1.S09	13	69	39	49	53	58	62	59	56	53	46	93	26		
GRTI.C11.LC1.S10	1	49	36	47	49	50	52	51	48	46	40	88	28		
GRTI.C11.LC1.S11		47	37	48	50	51	53	51	49	46	41	89	26		
PARI.C11.LC1.N01	17	89	53	66	72	80	87	84	80	77	68	146	53	1	
PARI.C11.LC1.N03	6	69	47	60	67	75	84	81	76	73	63	128	30		
PARI.C11.LC1.N2A	17	86	53	66	71	75	81	78	74	71	62	133	35		
PARI.C11.LC1.N2B	17	86	53	66	71	75	81	78	74	71	62	133	35		
PARI.C11.LC1.N4A	1	55	41	53	57	60	65	62	60	57	50	102	22		
PARI.C11.LC1.N4B	3	57	41	53	57	61	65	63	60	57	50	102	22		
PARI.C11.LC1.N4C	3	57	41	53	57	61	65	63	60	57	50	102	22		
PARI.C11.LC1.NOP	17	86	53	66	71	75	81	78	74	71	62	133	35		
PCFI.C11.LC1.N01	17	89	53	66	72	80	87	84	80	77	68	146	53	1	
PCFI.C11.LC1.N03	6	69	47	60	67	75	84	81	76	73	63	128	30		
PCFI.C11.LC1.N2A	17	86	53	66	71	75	81	78	74	71	62	133	35		
PCFI.C11.LC1.N2B	17	86	53	66	71	75	81	78	74	71	62	133	35		
PCFI.C11.LC1.N4A	1	55	41	53	57	60	65	62	60	57	50	102	22		
PCFI.C11.LC1.N4B	3	57	41	53	57	61	65	63	60	57	50	102	22		
PCFI.C11.LC1.N4C	3	57	41	53	57	61	65	63	60	57	50	102	22		
PCFI.C11.LC1.NOP	17	86	53	66	71	75	81	78	74	71	62	133	35		
PCFI.C11.LC1.S05	5	47	106	57	70	75	82	89	85	79	75	67	145	55	5
PCFI.C11.LC1.S06		26	96	55	67	71	76	81	78	75	72	61	120	40	1

# WATER COEFFICIENTS

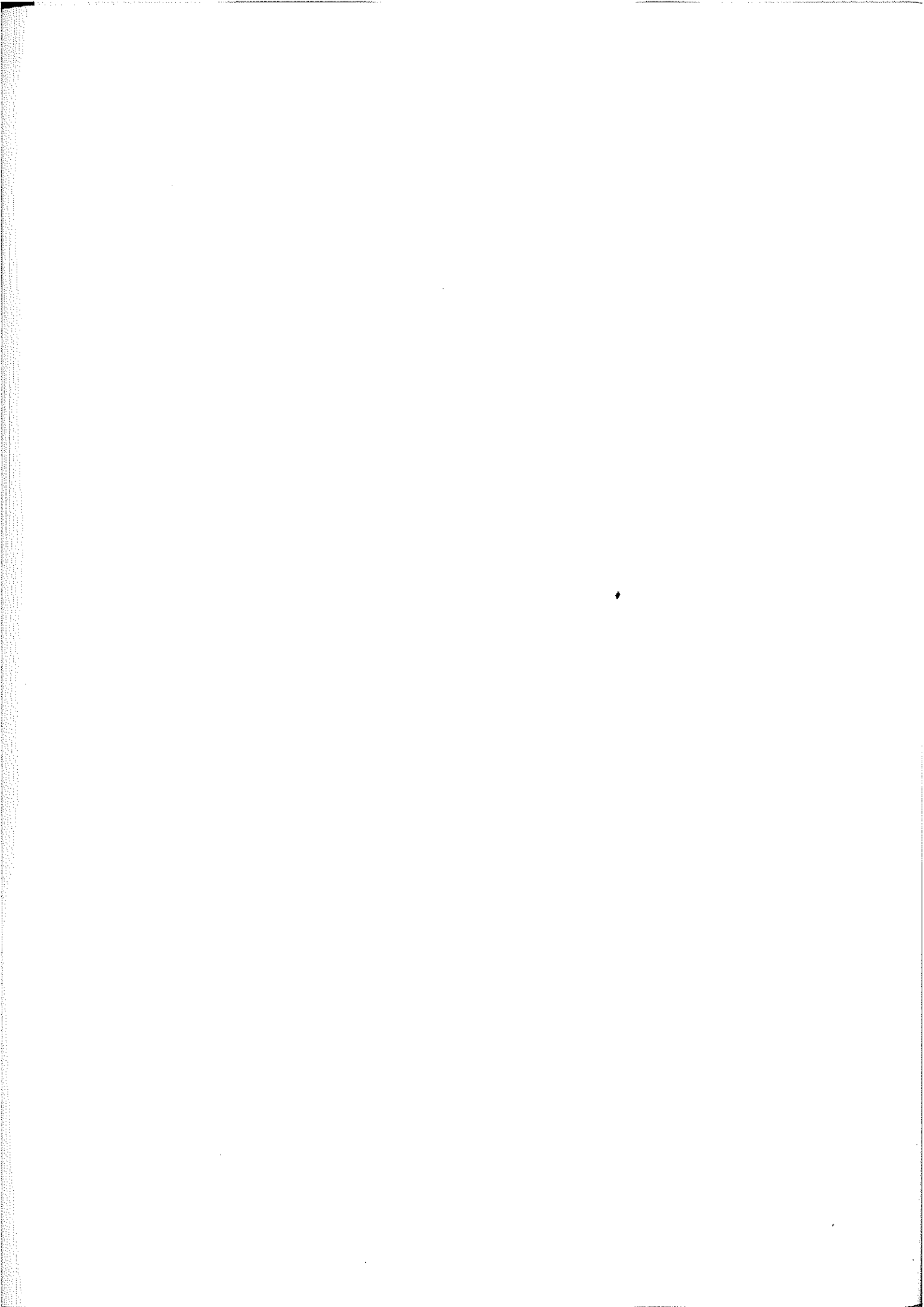
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WG02 WG03 WG04 WG05 WG6A WG6B WG6 WG7A WG7B WG7 WG8A WG8B WG8 WG09 WG10 WG11

PCFI.C11.LC1.S07	2	33	102	57	69	75	82	88	85	79	75	66	143	47	2
PCFI.C11.LC1.S08		19	102	54	64	68	73	78	74	69	65	56	117	39	1
PCFI.C11.LC1.S09	1	34	103	54	64	69	75	80	76	72	68	59	124	42	8
PCFI.C11.LC1.S10		9	80	50	62	64	65	68	65	62	59	53	116	43	
PCFI.C11.LC1.S11		7	79	50	63	65	66	69	66	63	60	53	118	42	
PCPI.C11.LC1.N01		17	89	53	66	72	80	87	84	80	77	68	146	53	1
PCPI.C11.LC1.N03		6	69	47	60	67	75	84	81	76	73	63	128	30	
PCPI.C11.LC1.N2A		17	86	53	66	71	75	81	78	74	71	62	133	35	
PCPI.C11.LC1.N2B		17	86	53	66	71	75	81	78	74	71	62	133	35	
PCPI.C11.LC1.N4A		1	55	41	53	57	60	65	62	60	57	50	102	22	
PCPI.C11.LC1.N4B		3	57	41	53	57	61	65	63	60	57	50	102	22	
PCPI.C11.LC1.N4C		3	57	41	53	57	61	65	63	60	57	50	102	22	
PCPI.C11.LC1.NOP		17	86	53	66	71	75	81	78	74	71	62	133	35	
PCPI.C11.LC1.S05	5	47	106	57	70	75	82	89	85	79	75	67	145	55	5
PCPI.C11.LC1.S06		26	96	55	67	71	76	81	78	75	72	61	120	40	1
PCPI.C11.LC1.S07	2	33	102	57	69	75	82	88	85	79	75	66	143	47	2
PCPI.C11.LC1.S08		19	102	54	64	68	73	78	74	69	65	56	117	39	1
PCPI.C11.LC1.S09	1	34	103	54	64	69	75	80	76	72	68	59	124	42	8
PCPI.C11.LC1.S10		9	80	50	62	64	65	68	65	62	59	53	116	43	
PCPI.C11.LC1.S11		7	79	50	63	65	66	69	66	63	60	53	118	42	
POMI.C11.LC1.N01		17	89	53	66	72	80	87	84	80	77	68	146	53	1
POMI.C11.LC1.N03		6	69	47	60	67	75	84	81	76	73	63	128	30	
POMI.C11.LC1.N2A		17	86	53	66	71	75	81	78	74	71	62	133	35	
POMI.C11.LC1.N2B		17	86	53	66	71	75	81	78	74	71	62	133	35	
POMI.C11.LC1.N4A		1	55	41	53	57	60	65	62	60	57	50	102	22	
POMI.C11.LC1.N4B		3	57	41	53	57	61	65	63	60	57	50	102	22	
POMI.C11.LC1.N4C		3	57	41	53	57	61	65	63	60	57	50	102	22	
POMI.C11.LC1.NOP		17	86	53	66	71	75	81	78	74	71	62	133	35	
POMI.C11.LC1.S05	5	47	106	57	70	75	82	89	85	79	75	67	145	55	5
POMI.C11.LC1.S06		26	96	55	67	71	76	81	78	75	72	61	120	40	1
POMI.C11.LC1.S07	2	33	102	57	69	75	82	88	85	79	75	66	143	47	2
POMI.C11.LC1.S08		19	102	54	64	68	73	78	74	69	65	56	117	39	1
POMI.C11.LC1.S09	1	34	103	54	64	69	75	80	76	72	68	59	124	42	8
POMI.C11.LC1.S10		9	80	50	62	64	65	68	65	62	59	53	116	43	
POMI.C11.LC1.S11		7	79	50	63	65	66	69	66	63	60	53	118	42	
WCRI.C11.LC1.N01		21	99	59	73	80	89	96	93	88	82	72	158	63	3
WCRI.C11.LC1.N03		8	77	52	66	74	84	93	89	83	78	67	139	37	
WCRI.C11.LC1.N2A		20	96	58	73	78	84	90	86	81	75	66	143	43	
WCRI.C11.LC1.N2B		20	96	58	73	78	84	90	86	81	75	66	143	43	
WCRI.C11.LC1.N4A		3	64	45	58	62	67	72	69	66	61	53	110	27	
WCRI.C11.LC1.N4B		5	66	45	58	63	67	72	69	66	61	53	110	28	
WCRI.C11.LC1.N4C		5	66	45	58	63	67	72	69	66	61	53	110	28	
WCRI.C11.LC1.NOP		20	96	58	73	78	84	90	86	81	75	66	143	43	
WCRI.C11.LC1.S05	6	51	116	63	77	83	91	98	94	87	80	71	157	63	9
WCRI.C11.LC1.S06		29	105	60	74	79	84	90	87	82	76	65	130	47	3
WCRI.C11.LC1.S07	2	38	112	62	76	83	91	98	94	86	80	70	155	55	4
WCRI.C11.LC1.S08		23	112	59	70	75	81	87	83	76	69	60	127	46	3
WCRI.C11.LC1.S09	1	38	112	59	71	76	83	89	85	79	73	63	12	50	3
WCRI.C11.LC1.S10		12	89	54	68	70	72	75	72	68	63	56	178	50	1
WCRI.C11.LC1.S11		9	88	55	69	71	74	76	73	69	63	56	127	50	



**APPENDIX E 7:**  
**YIELD COEFFICIENTS**  
**(KG PER DECAR)**





## YIELD COEFFICIENTS

kg/da

ALFI.C11.LC1.N00.ALFALFA	1750.00
ALFI.C11.LC1.S00.ALFALFA	1900.00
ALFI.C11.LC2.N00.ALFALFA	1645.00
ALFI.C11.LC2.S00.ALFALFA	1786.00
ALFI.C11.LC3.N00.ALFALFA	1540.00
ALFI.C11.LC3.S00.ALFALFA	1672.00
BR1I.C11.LC1.000.BARLEY	600.00
BR1I.C11.LC2.000.BARLEY	564.00
BR1I.C11.LC3.000.BARLEY	528.00
BR2I.C11.LC1.000.BARLEY	600.00
BR2I.C11.LC2.000.BARLEY	564.00
BR2I.C11.LC3.000.BARLEY	528.00
BRLD.C11.LC1.NHR.BARLEY	350.75
BRLD.C11.LC1.OMR.BARLEY	305.00
BRLD.C11.LC1.SLR.BARLEY	259.25
BRLD.C11.LC2.NHR.BARLEY	329.71
BRLD.C11.LC2.OMR.BARLEY	286.70
BRLD.C11.LC2.SLR.BARLEY	243.70
BRLD.C11.LC3.NHR.BARLEY	308.66
BRLD.C11.LC3.OMR.BARLEY	268.40
BRLD.C11.LC3.SLR.BARLEY	228.14
BRLD.C11.LC4.NHR.BARLEY	287.62
BRLD.C11.LC4.OMR.BARLEY	250.10
BRLD.C11.LC4.SLR.BARLEY	212.59
CASI.C11.LC1.000.CARROT	4500.00
CASI.C11.LC2.000.CARROT	3870.00
CASI.C11.LC3.000.CARROT	3240.00
CAWI.C11.LC1.000.CARROT	2300.00
CAWI.C11.LC2.000.CARROT	2024.00
CAWI.C11.LC3.000.CARROT	1748.00
CB1I.C11.LC1.000.CABBAGE	3500.00
CB1I.C11.LC2.000.CABBAGE	3010.00
CB1I.C11.LC3.000.CABBAGE	2520.00
CB2I.C11.LC1.000.CABBAGE	3500.00
CB2I.C11.LC2.000.CABBAGE	3010.00
CB2I.C11.LC3.000.CABBAGE	2520.00
CB3I.C11.LC1.000.CABBAGE	3500.00
CB3I.C11.LC2.000.CABBAGE	3010.00
CB3I.C11.LC3.000.CABBAGE	2520.00
CC1I.C11.LC1.000.CUCUMBER	4000.00
CC1I.C11.LC2.000.CUCUMBER	3280.00
CC1I.C11.LC3.000.CUCUMBER	2560.00
CC2I.C11.LC1.000.CUCUMBER	4000.00
CC2I.C11.LC2.000.CUCUMBER	3280.00
CC2I.C11.LC3.000.CUCUMBER	2560.00
CG1I.C11.LC1.000.CORN	900.00
CG1I.C11.LC2.000.CORN	846.00
CG1I.C11.LC3.000.CORN	792.00
CG2I.C11.LC1.000.CORN	900.00
CG2I.C11.LC2.000.CORN	846.00
CG2I.C11.LC3.000.CORN	792.00
CG3I.C11.LC1.000.CORN	900.00
CG3I.C11.LC2.000.CORN	846.00
CG3I.C11.LC3.000.CORN	792.00
CH1I.C11.LC1.000.CHICK-PEA	350.00
CH1I.C11.LC2.000.CHICK-PEA	329.00
CH1I.C11.LC3.000.CHICK-PEA	308.00
CH2I.C11.LC1.000.CHICK-PEA	350.00
CH2I.C11.LC2.000.CHICK-PEA	329.00

## YIELD COEFFICIENTS

kg/da

CH2I.C11.LC3.000.CHICK-PEA	308.00
CH3I.C11.LC1.000.CHICK-PEA	350.00
CH3I.C11.LC2.000.CHICK-PEA	329.00
CH3I.C11.LC3.000.CHICK-PEA	308.00
CHCD.C11.LC1.NHR.CHICK-PEA	230.00
CHCD.C11.LC1.OMR.CHICK-PEA	200.00
CHCD.C11.LC1.SLR.CHICK-PEA	170.00
CHCD.C11.LC2.NHR.CHICK-PEA	216.20
CHCD.C11.LC2.OMR.CHICK-PEA	188.00
CHCD.C11.LC2.SLR.CHICK-PEA	159.80
CHCD.C11.LC3.NHR.CHICK-PEA	202.40
CHCD.C11.LC3.OMR.CHICK-PEA	176.00
CHCD.C11.LC3.SLR.CHICK-PEA	149.60
CHCD.C11.LC4.NHR.CHICK-PEA	188.60
CHCD.C11.LC4.OMR.CHICK-PEA	164.00
CHCD.C11.LC4.SLR.CHICK-PEA	139.40
CLFI.C11.LC1.000.CAULIFLOWR	3000.00
CLFI.C11.LC2.000.CAULIFLOWR	2460.00
CLFI.C11.LC3.000.CAULIFLOWR	2040.00
CS1I.C11.LC1.000.CORN-SIL	6100.00
CS1I.C11.LC2.000.CORN-SIL	5734.00
CS1I.C11.LC3.000.CORN-SIL	5368.00
CS2I.C11.LC1.000.CORN-SIL	7980.00
CS2I.C11.LC2.000.CORN-SIL	7501.20
CS2I.C11.LC3.000.CORN-SIL	7022.40
CS3I.C11.LC1.000.CORN-SIL	6890.00
CS3I.C11.LC2.000.CORN-SIL	6476.60
CS3I.C11.LC3.000.CORN-SIL	6063.20
CT1I.C11.LC1.000.COTTON	450.00
CT1I.C11.LC2.000.COTTON	423.00
CT2I.C11.LC1.S00.COTTON	415.00
CT2I.C11.LC2.S00.COTTON	390.10
CT3I.C11.LC1.S00.COTTON	380.00
CT3I.C11.LC2.S00.COTTON	357.20
CTOI.C11.LC1.N00.CON-TOMATO	5040.00
CTOI.C11.LC1.S00.CON-TOMATO	6000.00
CTOI.C11.LC2.N00.CON-TOMATO	4132.80
CTOI.C11.LC2.S00.CON-TOMATO	4920.00
CTOI.C11.LC3.N00.CON-TOMATO	3225.60
CTOI.C11.LC3.S00.CON-TOMATO	3840.00
CW1I.C11.LC1.000.COMWHEAT	560.00
CW1I.C11.LC2.000.COMWHEAT	526.40
CW1I.C11.LC3.000.COMWHEAT	492.80
CW2I.C11.LC1.000.COMWHEAT	560.00
CW2I.C11.LC2.000.COMWHEAT	526.40
CW2I.C11.LC3.000.COMWHEAT	492.80
CW3I.C11.LC1.S05.COMWHEAT	560.00
CW3I.C11.LC2.S05.COMWHEAT	526.40
CW3I.C11.LC3.S05.COMWHEAT	492.80
CWHD.C11.LC1.NHR.COMWHEAT	391.00
CWHD.C11.LC1.OMR.COMWHEAT	340.00
CWHD.C11.LC1.SLR.COMWHEAT	289.00
CWHD.C11.LC2.NHR.COMWHEAT	367.54
CWHD.C11.LC2.OMR.COMWHEAT	319.60
CWHD.C11.LC2.SLR.COMWHEAT	271.66
CWHD.C11.LC3.NHR.COMWHEAT	344.08
CWHD.C11.LC3.OMR.COMWHEAT	299.20
CWHD.C11.LC3.SLR.COMWHEAT	254.32
CWHD.C11.LC4.NHR.COMWHEAT	320.62

## YIELD COEFFICIENTS

kg/da

CWHD.C11.LC4.OMR.COMWHEAT	278.80
CWHD.C11.LC4.SLR.COMWHEAT	236.98
DBNI.C11.LC1.000.DRY-BEAN	200.00
DBNI.C11.LC2.000.DRY-BEAN	188.00
DBNI.C11.LC3.000.DRY-BEAN	176.00
DW1I.C11.LC1.000.DURWHEAT	520.00
DW1I.C11.LC2.000.DURWHEAT	488.80
DW1I.C11.LC3.000.DURWHEAT	457.60
DW2I.C11.LC1.N00.DURWHEAT	520.00
DW2I.C11.LC2.N00.DURWHEAT	488.80
DW2I.C11.LC3.N00.DURWHEAT	457.60
DW3I.C11.LC1.S00.DURWHEAT	520.00
DW3I.C11.LC2.S00.DURWHEAT	488.80
DW3I.C11.LC3.S00.DURWHEAT	457.60
DWHD.C11.LC1.NHR.DURWHEAT	391.00
DWHD.C11.LC1.OMR.DURWHEAT	340.00
DWHD.C11.LC1.SLR.DURWHEAT	289.00
DWHD.C11.LC2.NHR.DURWHEAT	367.54
DWHD.C11.LC2.OMR.DURWHEAT	319.60
DWHD.C11.LC2.SLR.DURWHEAT	271.66
DWHD.C11.LC3.NHR.DURWHEAT	344.08
DWHD.C11.LC3.OMR.DURWHEAT	299.20
DWHD.C11.LC3.SLR.DURWHEAT	254.32
DWHD.C11.LC4.NHR.DURWHEAT	320.62
DWHD.C11.LC4.OMR.DURWHEAT	278.80
DWHD.C11.LC4.SLR.DURWHEAT	236.98
EG1I.C11.LC1.000.AUBERGINE	6000.00
EG1I.C11.LC2.000.AUBERGINE	4920.00
EG1I.C11.LC3.000.AUBERGINE	3840.00
EG2I.C11.LC1.000.AUBERGINE	6000.00
EG2I.C11.LC2.000.AUBERGINE	4920.00
EG2I.C11.LC3.000.AUBERGINE	3840.00
FTOI.C11.LC1.N00.FRE-TOMATO	4550.00
FTOI.C11.LC1.S00.FRE-TOMATO	5400.00
FTOI.C11.LC2.N00.FRE-TOMATO	3731.00
FTOI.C11.LC2.S00.FRE-TOMATO	4428.00
FTOI.C11.LC3.N00.FRE-TOMATO	2912.00
FTOI.C11.LC3.S00.FRE-TOMATO	3456.00
GN1I.C11.LC1.000.GROUNDNUT	375.00
GN1I.C11.LC2.000.GROUNDNUT	352.50
GN1I.C11.LC3.000.GROUNDNUT	330.00
GN2I.C11.LC1.000.GROUNDNUT	330.00
GN2I.C11.LC2.000.GROUNDNUT	310.20
GN2I.C11.LC3.000.GROUNDNUT	290.40
LEKI.C11.LC1.000.LEEK	7000.00
LEKI.C11.LC2.000.LEEK	6020.00
LEKI.C11.LC3.000.LEEK	5040.00
LNTD.C11.LC1.NHR.LENTIL	218.50
LNTD.C11.LC1.OMR.LENTIL	190.00
LNTD.C11.LC1.SLR.LENTIL	161.50
LNTD.C11.LC2.NHR.LENTIL	205.39
LNTD.C11.LC2.OMR.LENTIL	178.60
LNTD.C11.LC2.SLR.LENTIL	151.81
LNTD.C11.LC3.NHR.LENTIL	192.28
LNTD.C11.LC3.OMR.LENTIL	167.20
LNTD.C11.LC3.SLR.LENTIL	142.12
LNTD.C11.LC4.NHR.LENTIL	179.17
LNTD.C11.LC4.OMR.LENTIL	155.80
LNTD.C11.LC4.SLR.LENTIL	132.43

YIELD COEFFICIENTS kg/da

LNTI.C11.LC1.000.LENTIL	300.00
LNTI.C11.LC2.000.LENTIL	282.00
LNTI.C11.LC3.000.LENTIL	264.00
LT1I.C11.LC1.000.LETTUCE	4500.00
LT1I.C11.LC2.000.LETTUCE	3870.00
LT1I.C11.LC3.000.LETTUCE	3240.00
LT2I.C11.LC1.000.LETTUCE	4500.00
LT2I.C11.LC2.000.LETTUCE	3870.00
LT2I.C11.LC3.000.LETTUCE	3240.00
LT3I.C11.LC1.000.LETTUCE	4500.00
LT3I.C11.LC2.000.LETTUCE	3870.00
LT3I.C11.LC3.000.LETTUCE	3240.00
MELD.C11.LC1.NHR.MELON	1300.08
MELD.C11.LC1.OMR.MELON	1130.50
MELD.C11.LC1.SLR.MELON	960.93
MELD.C11.LC2.NHR.MELON	1222.07
MELD.C11.LC2.OMR.MELON	1062.67
MELD.C11.LC2.SLR.MELON	903.27
MELD.C11.LC3.NHR.MELON	1144.07
MELD.C11.LC3.OMR.MELON	994.84
MELD.C11.LC3.SLR.MELON	845.61
MELD.C11.LC4.NHR.MELON	1066.06
MELD.C11.LC4.OMR.MELON	927.01
MELD.C11.LC4.SLR.MELON	787.96
MELI.C11.LC1.000.MELON	3000.00
MELI.C11.LC2.000.MELON	2820.00
MELI.C11.LC3.000.MELON	2640.00
OKRI.C11.LC1.S00.OKRA	1000.00
OKRI.C11.LC2.S00.OKRA	820.00
OKRI.C11.LC3.S00.OKRA	680.00
ON1I.C11.LC1.000.ONION	1900.00
ON1I.C11.LC2.000.ONION	1634.00
ON1I.C11.LC3.000.ONION	1368.00
ON2I.C11.LC1.000.ONION	1900.00
ON2I.C11.LC2.000.ONION	1634.00
ON2I.C11.LC3.000.ONION	1368.00
ON3I.C11.LC1.000.ONION	1900.00
ON3I.C11.LC2.000.ONION	1634.00
ON3I.C11.LC3.000.ONION	1368.00
ONSI.C11.LC1.000.ONION	1400.00
ONSI.C11.LC2.000.ONION	1204.00
ONSI.C11.LC3.000.ONION	1008.00
PP1I.C11.LC1.000.PEPPER	2800.00
PP1I.C11.LC2.000.PEPPER	2296.00
PP1I.C11.LC3.000.PEPPER	1792.00
PP2I.C11.LC1.000.PEPPER	2800.00
PP2I.C11.LC2.000.PEPPER	2296.00
PP2I.C11.LC3.000.PEPPER	1792.00
PTEI.C11.LC1.000.EARLY-POT	2000.00
PTEI.C11.LC2.000.EARLY-POT	1720.00
PTEI.C11.LC3.000.EARLY-POT	1440.00
PTLI.C11.LC1.000.POTATO	2800.00
PTLI.C11.LC2.000.POTATO	2408.00
PTLI.C11.LC3.000.POTATO	2016.00
RICI.C11.LC1.000.RICE	585.00
RYED.C11.LC1.NHR.RYE	247.25
RYED.C11.LC1.OMR.RYE	215.00
RYED.C11.LC1.SLR.RYE	182.75
RYED.C11.LC2.NHR.RYE	232.41

YIELD COEFFICIENTS      kg/da

RYED.C11.LC2.OMR.RYE	202.10
RYED.C11.LC2.SLR.RYE	171.79
RYED.C11.LC3.NHR.RYE	217.58
RYED.C11.LC3.OMR.RYE	189.20
RYED.C11.LC3.SLR.RYE	160.82
RYED.C11.LC4.NHR.RYE	202.75
RYED.C11.LC4.OMR.RYE	176.30
RYED.C11.LC4.SLR.RYE	149.86
SB1I.C11.LC1.000.SOYABEAN	380.00
SB1I.C11.LC2.000.SOYABEAN	357.20
SB1I.C11.LC3.000.SOYABEAN	334.40
SB2I.C11.LC1.000.SOYABEAN	380.00
SB2I.C11.LC2.000.SOYABEAN	357.20
SB2I.C11.LC3.000.SOYABEAN	334.40
SB3I.C11.LC1.000.SOYABEAN	380.00
SB3I.C11.LC2.000.SOYABEAN	357.20
SB3I.C11.LC3.000.SOYABEAN	334.40
SBTI.C11.LC1.000.SUGARBEET	4500.00
SBTI.C11.LC2.000.SUGARBEET	4230.00
SBTI.C11.LC3.000.SUGARBEET	3960.00
SESD.C11.LC1.NHR.SESAME	115.00
SESD.C11.LC1.OMR.SESAME	100.00
SESD.C11.LC1.SLR.SESAME	85.00
SESD.C11.LC2.NHR.SESAME	108.10
SESD.C11.LC2.OMR.SESAME	94.00
SESD.C11.LC2.SLR.SESAME	79.90
SESD.C11.LC3.NHR.SESAME	101.20
SESD.C11.LC3.OMR.SESAME	88.00
SESD.C11.LC3.SLR.SESAME	74.80
SESD.C11.LC4.NHR.SESAME	94.30
SESD.C11.LC4.OMR.SESAME	82.00
SESD.C11.LC4.SLR.SESAME	69.70
SG1I.C11.LC1.000.SORGHUM	760.00
SG1I.C11.LC2.000.SORGHUM	714.40
SG1I.C11.LC3.000.SORGHUM	668.80
SG2I.C11.LC1.000.SORGHUM	950.00
SG2I.C11.LC2.000.SORGHUM	893.00
SG2I.C11.LC3.000.SORGHUM	836.00
SG3I.C11.LC1.000.SORGHUM	855.00
SG3I.C11.LC2.000.SORGHUM	803.70
SG3I.C11.LC3.000.SORGHUM	752.40
SN1I.C11.LC1.000.SUNFLOWER	300.00
SN1I.C11.LC2.000.SUNFLOWER	282.00
SN1I.C11.LC3.000.SUNFLOWER	264.00
SN2I.C11.LC1.000.SUNFLOWER	300.00
SN2I.C11.LC2.000.SUNFLOWER	282.00
SN2I.C11.LC3.000.SUNFLOWER	264.00
SN3I.C11.LC1.S00.SUNFLOWER	300.00
SN3I.C11.LC2.S00.SUNFLOWER	282.00
SN3I.C11.LC3.S00.SUNFLOWER	264.00
SNFD.C11.LC1.NHR.SUNFLOWER	207.00
SNFD.C11.LC1.OMR.SUNFLOWER	180.00
SNFD.C11.LC1.SLR.SUNFLOWER	153.00
SNFD.C11.LC2.NHR.SUNFLOWER	194.58
SNFD.C11.LC2.OMR.SUNFLOWER	169.20
SNFD.C11.LC2.SLR.SUNFLOWER	143.82
SNFD.C11.LC3.NHR.SUNFLOWER	182.16
SNFD.C11.LC3.OMR.SUNFLOWER	158.40
SNFD.C11.LC3.SLR.SUNFLOWER	134.64

## YIELD COEFFICIENTS

kg/da

SNFD.C11.LC4.NHR.SUNFLOWER	169.74
SNFD.C11.LC4.OMR.SUNFLOWER	147.60
SNFD.C11.LC4.SLR.SUNFLOWER	125.46
SP1I.C11.LC1.000.SPINACH	2500.00
SP1I.C11.LC2.000.SPINACH	2150.00
SP1I.C11.LC3.000.SPINACH	1800.00
SP2I.C11.LC1.000.SPINACH	2500.00
SP2I.C11.LC2.000.SPINACH	2150.00
SP2I.C11.LC3.000.SPINACH	1800.00
SP3I.C11.LC1.000.SPINACH	2500.00
SP3I.C11.LC2.000.SPINACH	2150.00
SP3I.C11.LC3.000.SPINACH	1800.00
SPSI.C11.LC1.000.SPINACH	1200.00
SPSI.C11.LC2.000.SPINACH	1032.00
SPSI.C11.LC3.000.SPINACH	864.00
SQAI.C11.LC1.000.SQUASH	4000.00
SQAI.C11.LC2.000.SQUASH	3280.00
SQAI.C11.LC3.000.SQUASH	2720.00
SS1I.C11.LC1.000.SORGH-SIL	7200.00
SS1I.C11.LC2.000.SORGH-SIL	6768.00
SS1I.C11.LC3.000.SORGH-SIL	6336.00
SS2I.C11.LC1.000.SORGH-SIL	9070.00
SS2I.C11.LC2.000.SORGH-SIL	8525.80
SS2I.C11.LC3.000.SORGH-SIL	7981.60
SS3I.C11.LC1.000.SORGH-SIL	8130.00
SS3I.C11.LC2.000.SORGH-SIL	7642.20
SS3I.C11.LC3.000.SORGH-SIL	7154.40
TOBD.C11.LC2.NHR.TOBACCO	103.50
TOBD.C11.LC2.NMR.TOBACCO	90.00
TOBD.C11.LC2.SLR.TOBACCO	71.91
TOBD.C11.LC3.NHR.TOBACCO	91.18
TOBD.C11.LC3.NMR.TOBACCO	79.90
TOBD.C11.LC3.SLR.TOBACCO	67.68
TOBD.C11.LC4.NHR.TOBACCO	80.08
TOBD.C11.LC4.NMR.TOBACCO	69.52
TOBD.C11.LC4.SLR.TOBACCO	58.96
VCFD.C11.LC1.NHR.VETCH-FOD	1081.00
VCFD.C11.LC1.OMR.VETCH-FOD	940.00
VCFD.C11.LC1.SLR.VETCH-FOD	800.00
VCFD.C11.LC2.NHR.VETCH-FOD	1016.14
VCFD.C11.LC2.OMR.VETCH-FOD	883.60
VCFD.C11.LC2.SLR.VETCH-FOD	752.00
VCFD.C11.LC3.NHR.VETCH-FOD	951.28
VCFD.C11.LC3.OMR.VETCH-FOD	827.20
VCFD.C11.LC3.SLR.VETCH-FOD	704.00
VCFD.C11.LC4.NHR.VETCH-FOD	886.42
VCFD.C11.LC4.OMR.VETCH-FOD	770.80
VCFD.C11.LC4.SLR.VETCH-FOD	656.00
VCGD.C11.LC1.NHR.VETCH-GRA	287.50
VCGD.C11.LC1.OMR.VETCH-GRA	250.00
VCGD.C11.LC1.SLR.VETCH-GRA	212.50
VCGD.C11.LC2.NHR.VETCH-GRA	270.25
VCGD.C11.LC2.OMR.VETCH-GRA	235.00
VCGD.C11.LC2.SLR.VETCH-GRA	199.75
VCGD.C11.LC3.NHR.VETCH-GRA	253.00
VCGD.C11.LC3.OMR.VETCH-GRA	220.00
VCGD.C11.LC3.SLR.VETCH-GRA	187.00
VCGD.C11.LC4.NHR.VETCH-GRA	235.75
VCGD.C11.LC4.OMR.VETCH-GRA	205.00

## YIELD COEFFICIENTS

kg/da

VCGD.C11.LC4.SLR.VETCH-GRA	174.25
WMLD.C11.LC1.NHR.WAT-MELON	1615.75
WMLD.C11.LC1.OMR.WAT-MELON	1405.00
WMLD.C11.LC1.SLR.WAT-MELON	1194.25
WMLD.C11.LC2.NHR.WAT-MELON	1518.80
WMLD.C11.LC2.OMR.WAT-MELON	1320.70
WMLD.C11.LC2.SLR.WAT-MELON	1122.60
WMLD.C11.LC3.NHR.WAT-MELON	1421.86
WMLD.C11.LC3.OMR.WAT-MELON	1236.40
WMLD.C11.LC3.SLR.WAT-MELON	1050.94
WMLD.C11.LC4.NHR.WAT-MELON	1324.91
WMLD.C11.LC4.OMR.WAT-MELON	1152.10
WMLD.C11.LC4.SLR.WAT-MELON	979.29
WMLI.C11.LC1.000.WAT-MELON	3500.00
WMLI.C11.LC2.000.WAT-MELON	3290.00
WMLI.C11.LC3.000.WAT-MELON	2905.00
APPI.C11.LC1.N00.APPLE	860.00
APPI.C11.LC2.N00.APPLE	834.20
APPI.C11.LC3.N00.APPLE	808.40
APRI.C11.LC1.000.APRICOT	1070.00
APRI.C11.LC2.000.APRICOT	1037.90
APRI.C11.LC3.000.APRICOT	1005.80
CRRI.C11.LC1.000.CHERRY	720.00
CRRI.C11.LC2.000.CHERRY	698.40
CRRI.C11.LC3.000.CHERRY	676.80
FGDI.C11.LC1.000.DRY-FIGS	720.00
FGDI.C11.LC2.000.DRY-FIGS	698.40
FGDI.C11.LC3.000.DRY-FIGS	676.80
FGFI.C11.LC1.000.FRE-FIGS	720.00
FGFI.C11.LC2.000.FRE-FIGS	698.40
FGFI.C11.LC3.000.FRE-FIGS	676.80
GRSI.C11.LC1.000.SULTANA	900.00
GRSI.C11.LC2.000.SULTANA	873.00
GRSI.C11.LC3.000.SULTANA	846.00
GRTD.C11.LC1.NHR.TAB-GRAPE	800.00
GRTD.C11.LC1.OMR.TAB-GRAPE	690.00
GRTD.C11.LC2.NHR.TAB-GRAPE	776.00
GRTD.C11.LC2.OMR.TAB-GRAPE	669.30
GRTD.C11.LC3.NHR.TAB-GRAPE	752.00
GRTD.C11.LC3.OMR.TAB-GRAPE	648.60
GRTD.C11.LC4.NHR.TAB-GRAPE	728.00
GRTD.C11.LC4.OMR.TAB-GRAPE	627.90
GRTI.C11.LC1.N00.TAB-GRAPE	700.00
GRTI.C11.LC1.S00.TAB-GRAPE	1100.00
GRTI.C11.LC2.N00.TAB-GRAPE	679.00
GRTI.C11.LC2.S00.TAB-GRAPE	1067.00
GRTI.C11.LC3.N00.TAB-GRAPE	658.00
GRTI.C11.LC3.S00.TAB-GRAPE	1034.00
GRWD.C11.LC1.00R.WINE-GRAPE	670.00
GRWD.C11.LC2.00R.WINE-GRAPE	649.90
GRWD.C11.LC3.00R.WINE-GRAPE	629.80
GRWD.C11.LC4.00R.WINE-GRAPE	609.70
OLOD.C11.LC1.NHR.OIL-OLIVE	110.00
OLOD.C11.LC2.NHR.OIL-OLIVE	106.70
OLOD.C11.LC3.NHR.OIL-OLIVE	103.40
OLOD.C11.LC4.NHR.OIL-OLIVE	100.10
OLTD.C11.LC1.NHR.TAB-OLIVE	100.00
OLTD.C11.LC2.NHR.TAB-OLIVE	97.00

YIELD COEFFICIENTS kg/da

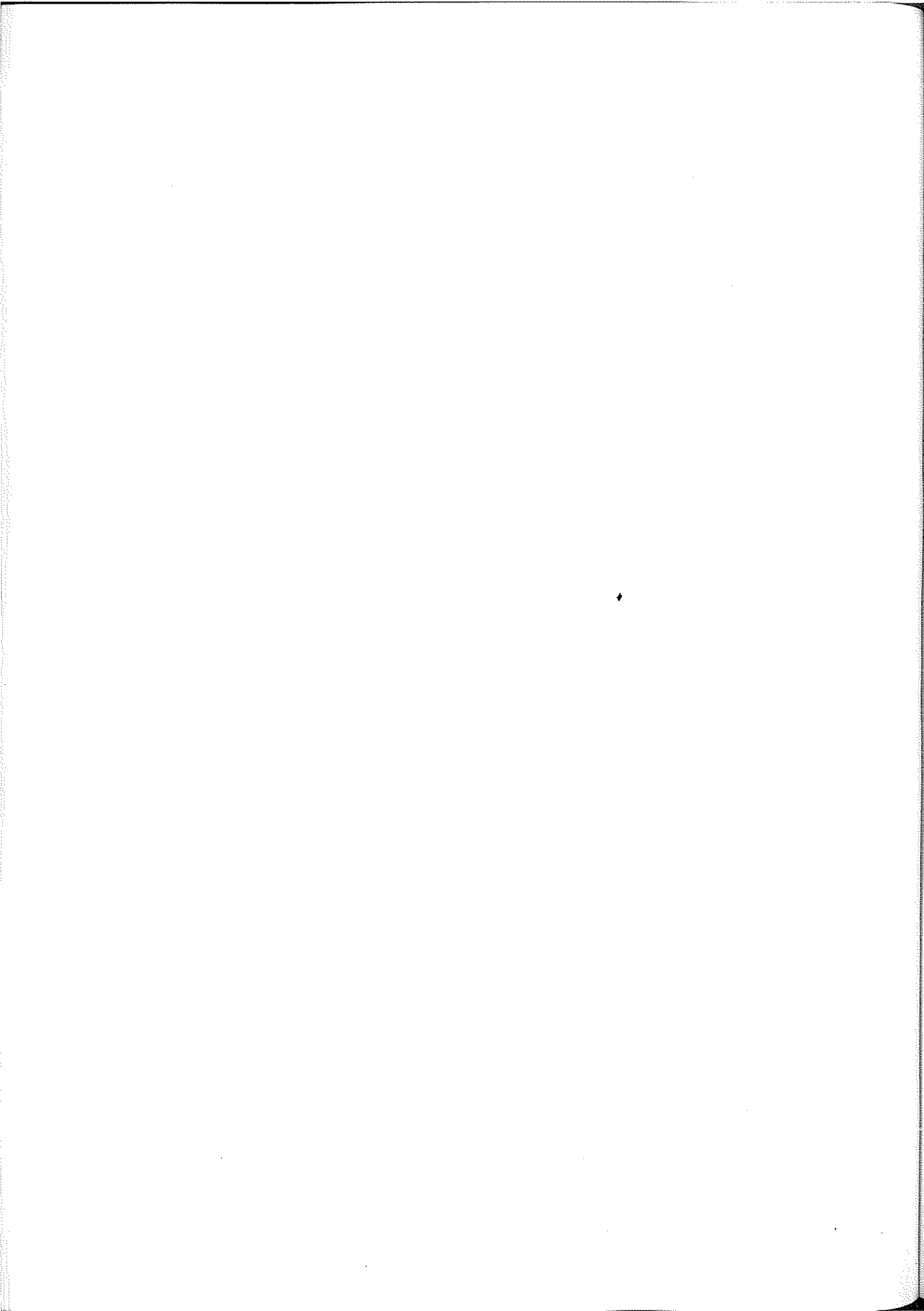
OLTD.C11.LC3.NHR.TAB-OLIVE	94.00
OLTD.C11.LC4.NHR.TAB-OLIVE	91.00
PARI.C11.LC1.000.PEARS	700.00
PARI.C11.LC2.000.PEARS	679.00
PARI.C11.LC3.000.PEARS	658.00
PCFI.C11.LC1.000.FRE-PEACH	930.00
PCFI.C11.LC2.000.FRE-PEACH	902.10
PCFI.C11.LC3.000.FRE-PEACH	874.20
PCPI.C11.LC1.000.PRO-PEACH	1200.00
PCPI.C11.LC2.000.PRO-PEACH	1164.00
PCPI.C11.LC3.000.PRO-PEACH	1128.00
PISD.C11.LC1.NHR.PISTACHIO	34.50
PISD.C11.LC1.OMR.PISTACHIO	36.20
PISD.C11.LC1.SLR.PISTACHIO	36.20
PISD.C11.LC2.NHR.PISTACHIO	33.47
PISD.C11.LC2.OMR.PISTACHIO	35.11
PISD.C11.LC2.SLR.PISTACHIO	35.11
PISD.C11.LC3.NHR.PISTACHIO	32.43
PISD.C11.LC3.OMR.PISTACHIO	34.03
PISD.C11.LC3.SLR.PISTACHIO	34.03
PISD.C11.LC4.NHR.PISTACHIO	31.40
PISD.C11.LC4.OMR.PISTACHIO	32.94
PISD.C11.LC4.SLR.PISTACHIO	32.94
POMI.C11.LC1.000.POMEGRAN	880.00
POMI.C11.LC2.000.POMEGRAN	853.60
POMI.C11.LC3.000.POMEGRAN	827.20
WCRI.C11.LC1.000.WILDCHERRY	700.00
WCRI.C11.LC2.000.WILDCHERRY	679.00
WCRI.C11.LC3.000.WILDCHERRY	658.00



**APPENDIX E 8:** ,

**BY-PRODUCT COEFFICIENTS**

**(KG PER DECAR)**



## BY-PRODUCTS

kg/da

BR1I.C11.LC1.000.F-BARLEY	1080.00
BR1I.C11.LC2.000.F-BARLEY	1015.20
BR1I.C11.LC3.000.F-BARLEY	950.40
BR2I.C11.LC1.000.F-BARLEY	1080.00
BR2I.C11.LC2.000.F-BARLEY	1015.20
BR2I.C11.LC3.000.F-BARLEY	950.40
BRLD.C11.LC1.NHR.F-BARLEY	631.35
BRLD.C11.LC1.OMR.F-BARLEY	549.00
BRLD.C11.LC1.SLR.F-BARLEY	466.65
BRLD.C11.LC2.NHR.F-BARLEY	593.47
BRLD.C11.LC2.OMR.F-BARLEY	516.06
BRLD.C11.LC2.SLR.F-BARLEY	438.65
BRLD.C11.LC3.NHR.F-BARLEY	555.59
BRLD.C11.LC3.OMR.F-BARLEY	483.12
BRLD.C11.LC3.SLR.F-BARLEY	410.65
BRLD.C11.LC4.NHR.F-BARLEY	517.71
BRLD.C11.LC4.OMR.F-BARLEY	450.18
BRLD.C11.LC4.SLR.F-BARLEY	382.65
CG1I.C11.LC1.000.F-CORN	1260.00
CG1I.C11.LC2.000.F-CORN	1184.40
CG1I.C11.LC3.000.F-CORN	1108.80
CG2I.C11.LC1.000.F-CORN	1260.00
CG2I.C11.LC2.000.F-CORN	1184.40
CG2I.C11.LC3.000.F-CORN	1108.80
CG3I.C11.LC1.000.F-CORN	1260.00
CG3I.C11.LC2.000.F-CORN	1184.40
CG3I.C11.LC3.000.F-CORN	1108.80
CH1I.C11.LC1.000.F-PULSES	420.00
CH1I.C11.LC2.000.F-PULSES	394.80
CH1I.C11.LC3.000.F-PULSES	369.60
CH3I.C11.LC1.000.F-PULSES	420.00
CH3I.C11.LC2.000.F-PULSES	394.80
CH3I.C11.LC3.000.F-PULSES	369.60
CHCD.C11.LC1.NHR.F-PULSES	276.00
CHCD.C11.LC1.OMR.F-PULSES	240.00
CHCD.C11.LC1.SLR.F-PULSES	204.00
CHCD.C11.LC2.NHR.F-PULSES	259.44
CHCD.C11.LC2.OMR.F-PULSES	225.60
CHCD.C11.LC2.SLR.F-PULSES	191.76
CHCD.C11.LC3.NHR.F-PULSES	242.88
CHCD.C11.LC3.OMR.F-PULSES	211.20
CHCD.C11.LC3.SLR.F-PULSES	179.52
CHCD.C11.LC4.NHR.F-PULSES	226.32
CHCD.C11.LC4.OMR.F-PULSES	196.80
CHCD.C11.LC4.SLR.F-PULSES	167.28
CW1I.C11.LC1.000.F-COMWHEAT	1008.00
CW1I.C11.LC2.000.F-COMWHEAT	947.52
CW1I.C11.LC3.000.F-COMWHEAT	887.04
CW2I.C11.LC1.N00.F-COMWHEAT	1008.00
CW2I.C11.LC2.N00.F-COMWHEAT	947.52
CW2I.C11.LC3.N00.F-COMWHEAT	887.04
CW3I.C11.LC1.S00.F-COMWHEAT	1008.00
CW3I.C11.LC2.S00.F-COMWHEAT	947.52
CW3I.C11.LC3.S00.F-COMWHEAT	887.04
CWHD.C11.LC1.NHR.F-COMWHEAT	598.23
CWHD.C11.LC1.OMR.F-COMWHEAT	520.20
CWHD.C11.LC1.SLR.F-COMWHEAT	442.17
CWHD.C11.LC2.NHR.F-COMWHEAT	562.34
CWHD.C11.LC2.OMR.F-COMWHEAT	488.99

## BY-PRODUCTS

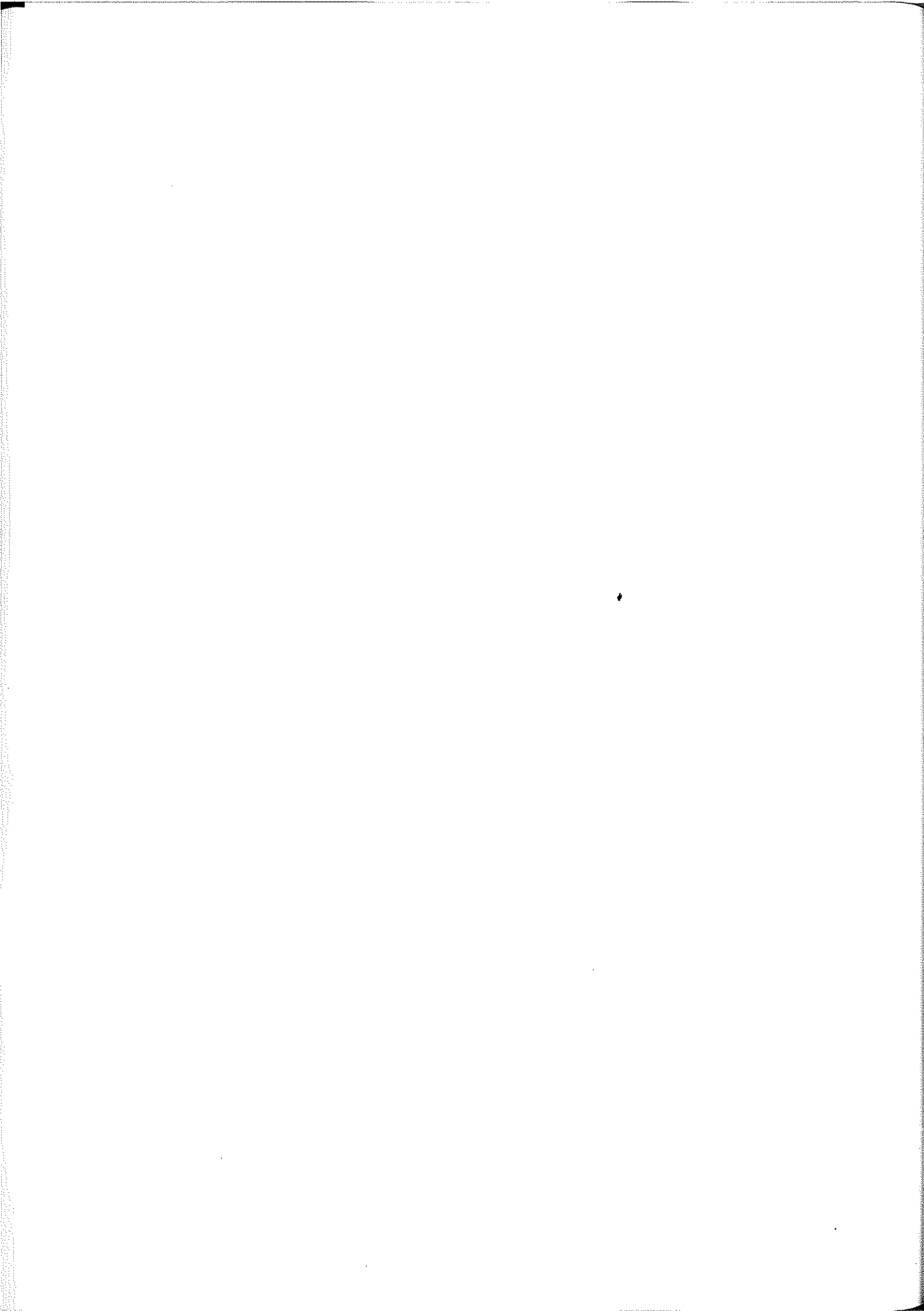
kg/da

CWHD.C11.LC2.SLR.F-COMWHEAT	415.64
CWHD.C11.LC3.NHR.F-COMWHEAT	526.44
CWHD.C11.LC3.OMR.F-COMWHEAT	457.78
CWHD.C11.LC3.SLR.F-COMWHEAT	389.11
CWHD.C11.LC4.NHR.F-COMWHEAT	490.55
CWHD.C11.LC4.OMR.F-COMWHEAT	426.56
CWHD.C11.LC4.SLR.F-COMWHEAT	362.58
DBNI.C11.LC1.NOO.F-PULSES	240.00
DBNI.C11.LC2.NOO.F-PULSES	225.60
DBNI.C11.LC3.NOO.F-PULSES	211.20
DW1I.C11.LC1.OOO.F-DURWHEAT	936.00
DW1I.C11.LC2.OOO.F-DURWHEAT	879.84
DW1I.C11.LC3.OOO.F-DURWHEAT	823.68
DW2I.C11.LC1.NOO.F-DURWHEAT	936.00
DW2I.C11.LC2.NOO.F-DURWHEAT	879.84
DW2I.C11.LC3.NOO.F-DURWHEAT	823.68
DW3I.C11.LC1.SOO.F-DURWHEAT	936.00
DW3I.C11.LC2.SOO.F-DURWHEAT	879.84
DW3I.C11.LC3.SOO.F-DURWHEAT	823.68
DWHD.C11.LC1.NHR.F-DURWHEAT	536.13
DWHD.C11.LC1.OMR.F-DURWHEAT	466.20
DWHD.C11.LC1.SLR.F-DURWHEAT	396.27
DWHD.C11.LC2.NHR.F-DURWHEAT	503.96
DWHD.C11.LC2.OMR.F-DURWHEAT	438.23
DWHD.C11.LC2.SLR.F-DURWHEAT	372.49
DWHD.C11.LC3.NHR.F-DURWHEAT	471.79
DWHD.C11.LC3.OMR.F-DURWHEAT	410.26
DWHD.C11.LC3.SLR.F-DURWHEAT	348.72
DWHD.C11.LC4.NHR.F-DURWHEAT	439.63
DWHD.C11.LC4.OMR.F-DURWHEAT	382.28
DWHD.C11.LC4.SLR.F-DURWHEAT	324.94
LNTD.C11.LC1.NHR.F-PULSES	248.40
LNTD.C11.LC1.OMR.F-PULSES	216.00
LNTD.C11.LC1.SLR.F-PULSES	183.60
LNTD.C11.LC2.NHR.F-PULSES	233.50
LNTD.C11.LC2.OMR.F-PULSES	203.04
LNTD.C11.LC2.SLR.F-PULSES	172.58
LNTD.C11.LC3.NHR.F-PULSES	218.59
LNTD.C11.LC3.OMR.F-PULSES	190.08
LNTD.C11.LC3.SLR.F-PULSES	161.57
LNTD.C11.LC4.NHR.F-PULSES	203.69
LNTD.C11.LC4.OMR.F-PULSES	177.12
LNTD.C11.LC4.SLR.F-PULSES	150.55
LNTI.C11.LC1.OOO.F-PULSES	360.00
LNTI.C11.LC2.OOO.F-PULSES	338.40
LNTI.C11.LC3.OOO.F-PULSES	316.80
RYED.C11.LC1.NHR.F-RYE	395.60
RYED.C11.LC1.OMR.F-RYE	344.00
RYED.C11.LC1.SLR.F-RYE	292.40
RYED.C11.LC2.NHR.F-RYE	371.86
RYED.C11.LC2.OMR.F-RYE	323.36
RYED.C11.LC2.SLR.F-RYE	274.86
RYED.C11.LC3.NHR.F-RYE	348.13
RYED.C11.LC3.OMR.F-RYE	302.72
RYED.C11.LC3.SLR.F-RYE	257.31
RYED.C11.LC4.NHR.F-RYE	324.39
RYED.C11.LC4.OMR.F-RYE	282.08
RYED.C11.LC4.SLR.F-RYE	239.77
VCGD.C11.LC1.NHR.F-VETCHG	431.25

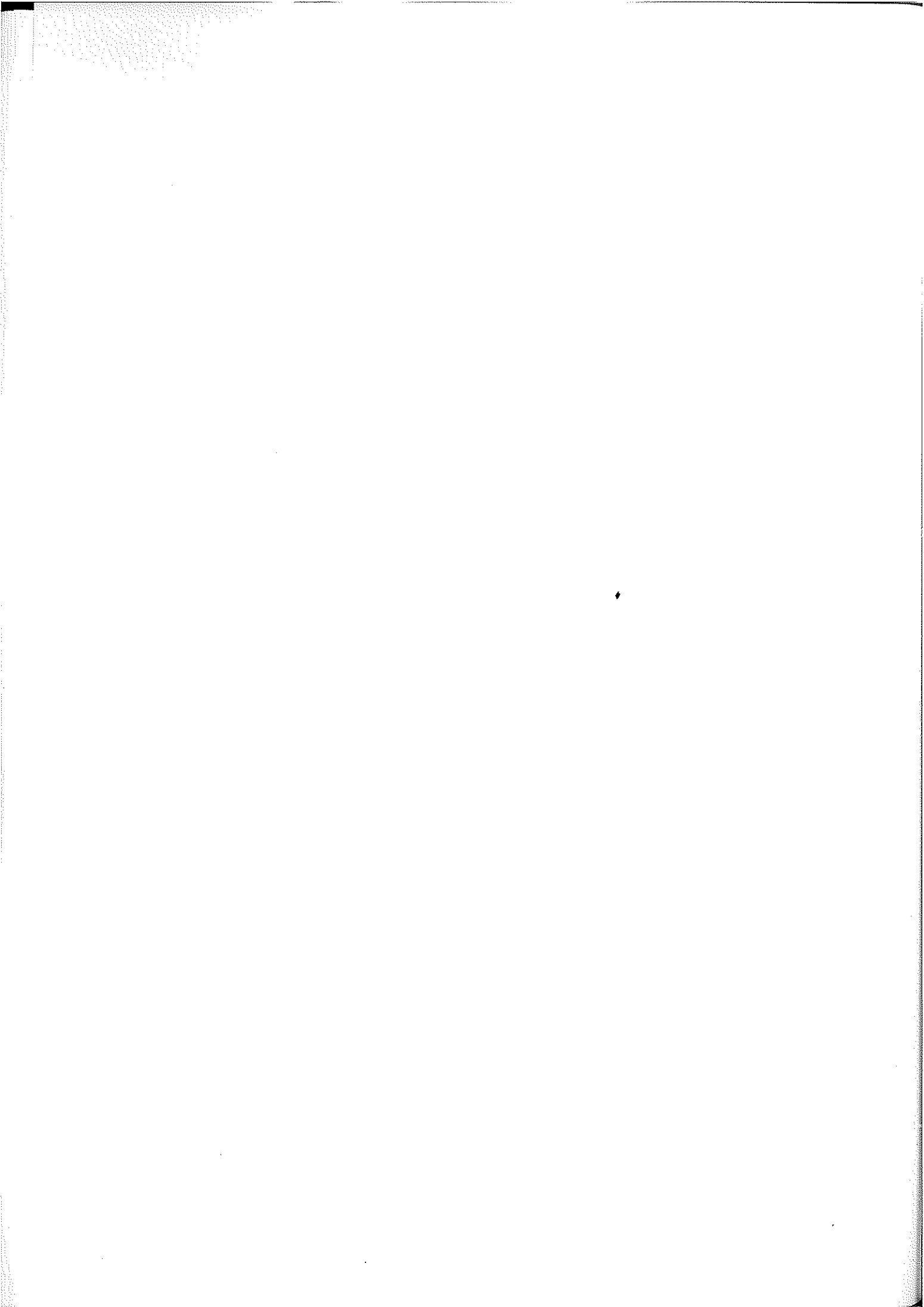
## BY-PRODUCTS

kg/da

VCGD.C11.LC1.OMR.F-VETCHG	375.00
VCGD.C11.LC1.SLR.F-VETCHG	318.75
VCGD.C11.LC2.NHR.F-VETCHG	405.38
VCGD.C11.LC2.OMR.F-VETCHG	352.50
VCGD.C11.LC2.SLR.F-VETCHG	299.63
VCGD.C11.LC3.NHR.F-VETCHG	379.50
VCGD.C11.LC3.OMR.F-VETCHG	330.00
VCGD.C11.LC3.SLR.F-VETCHG	280.50
VCGD.C11.LC4.NHR.F-VETCHG	353.63
VCGD.C11.LC4.OMR.F-VETCHG	307.50
VCGD.C11.LC4.SLR.F-VETCHG	261.38



**APPENDIX E 9:**  
**IRRIGATION DATA**





## Summary of Import Data

Irrigation Project	Code	Status*	Implementation Date	Max.Net Irrig.Area** [ha]	Gross Area Factor**	Annual Water Supply** [10 <sup>6</sup> m <sup>3</sup> ]	Monthly Peak Supply** [m <sup>3</sup> /s]	Ep*** [%]
NORTH-GAP								
Siserek-Hilvan	N1	F/S	2006	139772	1.14547	1746	174	46
Adiyaman-Kahta	N2a	F/S	1997	67940	1.14548	669	68	50
Adiyaman-Göksu-Ar.	N2b	U/C	2000	62504	1.14549	535	52	51
Dicle right + right pumpal	N3	U/C	1994	110068	1.14547	1198	122	51
Garzan	N4a	M/P	2003	52380	1.14548	440	54	53
Batman right + left	N4b	U/C	1993	32950	1.14549	285	39	51
Batman-Silvan	N4c	M/P	2003	231300	1.11111	1386	168	45
SOUTH-GAP								
Urfa-Herran	S5	U/C	1993	126441	1.12175	1640	178	51
Mardin-Ceylan (1st+2nd stage)	S6	D/D	2000	296163	1.12991	3593	396	50
Bozova pumpal	S7	F/S	1998	58968	1.18203	707	72	47
Suruç-Baziki	S8	F/S	2003	102402	1.16605	1322	12	49
Gaziantep	S9	D/D	2001	71234	1.14547	651	78	51
Nusaylin-Gizre-Idil	S10	F/S	2003	77697	1.14548	761	83	54
Siloysi	S11	F/S	2003	25749	1.24277	321	34	53

- Notes:
- \* DSI information of Oct. 1991 (M/P = Master Plan, F/S = Feasibility Study, D/D = Detailed Design, U/C = Under Construction)
  - \*\* DSI information of 24.1. and 10.2.92
  - \*\*\* Working Paper 15 of MP, Ep should be reduced by 15% alternatively
  - \*\*\*\* excluding Hancagiz, being already in operation

### Relative Water Supply

Irrigation Project	Code	Annual Water Supply *		Monthly Peak Supply **	
		[l/s/ha]	[m <sup>3</sup> ETo]	[l/s/ha]	[m <sup>3</sup> /m <sup>3</sup> Eto]
<u>NORTH-GAP</u>					
Sircerek-Hilvan	N1	0,59	0,85	1,24	1,13
Adiyaman-Kahta	N2a	0,47	0,72	1,00	0,97
Adiyaman-Göksu -Ar.	N2b	0,47	0,63	0,83	0,81
Dicle right + right pumpal	N3	0,51	0,84	1,11	1,05
Garzan	N4a	0,40	0,77	1,03	1,24
Batman right + left	N4b	0,41	0,79	1,18	1,42
Batman-Silvan	N4c	0,20	0,55	0,73	0,87
<u>SOUTH-GAP</u>					
Urfa-Herran	S5	0,51	0,89	1,41	1,27
Mardin-Ceylan (1st+2nd stage)	S6	0,57	0,92	1,34	1,30
Bozova pumped	S7	0,57	0,82	1,22	1,10
Suruç-Baziki	S8	0,61	0,99	1,19	1,20
Gaziantep	S9	0,49	0,69	1,09	1,11
Nusaylin-Cizre-Idil	S10	0,46	0,81	1,07	1,32
Siloyisi	S11	0,59	1,01	1,32	1,50

Notes: \* based on 249 days with irrigation (April to November)  
 \*\* expected peak month: July

Yield Factors related to Irrigation Deficit (only during June to August)

Crop	Seeding date		Irr. 80	Irr. 60	Crop	Seed. date		Irr. 80	Irr. 60
			0.82	0.70	Onion-spring	15.3.		0.87	0.74
Alfalfa	7.11.	x	0.94	0.88	Onion-winter	24.8.		0.95	0.90
Barley	23.10		1.00	1.00	"	9.9.	x	0.93	0.86
"	5.4.	x	0.84	0.68	"	24.9.		0.90	0.80
Bean dry	1.8.		0.84	0.68	Pepper	5.5.	x	0.81	0.62
Cabbage	15.8.	x	0.89	0.78	"	20.5.		0.80	0.60
"	1.9.		1.00	1.00	Potato	28.3.		0.90	0.80
Carrot-spring	17.3.	x	0.84	0.68	"	5.5.	x	0.80	0.60
Carrot-winter	9.9.	x	1.00	1.00	"	20.5.		0.78	0.56
Cauliflower	15.7.	x	0.96	0.92	Potato, early	28.3.	x	0.96	0.92
Chickpea	1.11.		0.98	0.96					
"	15.11.	x	0.96	0.92	Rice	20.5.	x	0.50	0.00
"	30.11.		0.95	0.90	Sorghum grain	1.4.		0.82	0.64
Com-grain	1.4.		0.58	0.16		16.4.		0.82	0.64
"	16.4.		0.62	0.24		1.5.		0.82	0.64
"	1.5.		0.68	0.36		16.5.		0.82	0.64
"	16.5.		0.74	0.48		1.6.		0.87	0.74
"	1.6.		0.80	0.60		16.6.		0.93	0.86
"	16.6.		0.86	0.72		1.7.	x	0.95	0.90
"	1.7.	x	0.92	0.84					
					Sorghum-silage	1.4.		0.82	0.64
Com-silage	1.4.		0.58	0.16		16.4.		0.82	0.64
"	16.4.		0.62	0.24		1.5.		0.82	0.64
"	1.5.		0.68	0.36		16.5.		0.82	0.64
"	16.5.		0.74	0.48		1.6.		0.87	0.74
"	1.6.		0.80	0.60		16.6.		0.93	0.86
"	16.6.		0.86	0.72		1.7.	x	0.95	0.90
"	1.7.	x	0.92	0.84		16.7.		0.96	0.92
"	16.7.		0.93	0.86					
					Soybean	1.4.		0.83	0.66
Cotton	25.4.	x	0.88	0.76		16.4.		0.82	0.66
						1.5.		0.81	0.62
						15.5.		0.80	0.60
Cucumber	5.5.	x	0.80	0.60		1.6.		0.80	0.60
"	20.5.		0.80	0.60		16.6.		0.83	0.66
						1.7.	x	0.86	0.72
Eggplant	1.4.	x	0.80	0.60					
"	15.4.		0.80	0.60	Spinach-spring	17.3.	x	1.00	1.00
					Spinach-winter	5.9.		1.00	1.00
Groundnut	1.4.	x	0.82	0.64		20.9.	x	1.00	1.00
"	15.4.		0.81	0.62		5.10.		1.00	1.00
"	1.5.		0.80	0.60	Squash	5.5.	x	0.80	0.60
"	16.5.		0.80	0.60	Sugarbeet	1.4.	x	0.88	0.74
"	1.6.		0.84	0.68	"	16.4.		0.88	0.74
"	16.6.		0.88	0.76					
"	1.7.		0.92	0.84	Sunflower	1.4.	x	0.80	0.60
Leek	15.7.	x	0.96	0.92	"	16.4.		0.80	0.60
Lentil	3.11.	x	0.94	0.88					

Yield Factors related to Irrigation Deficit (only during June to August)

Crop	Seeding date		Irr. 80	Irr. 60	Crop	Seed. date		Irr. 80	Irr. 60
Lettuce	1.10.		1.00	1.00	Tomato	1.4.	x	0.78	0.56
"	15.10.	x	1.00	1.00	"	16.4.		0.79	0.58
"	1.11.		1.00	1.00					
Melon	3.5.	x	0.80	0.60	Watermelon	1.5.	x	0.80	0.60
Okra	5.5.	x	0.88	0.76	"	15.5.		0.79	0.58
					Wheat	23.10.		0.96	0.92
					"	7.11.	x	0.93	0.86

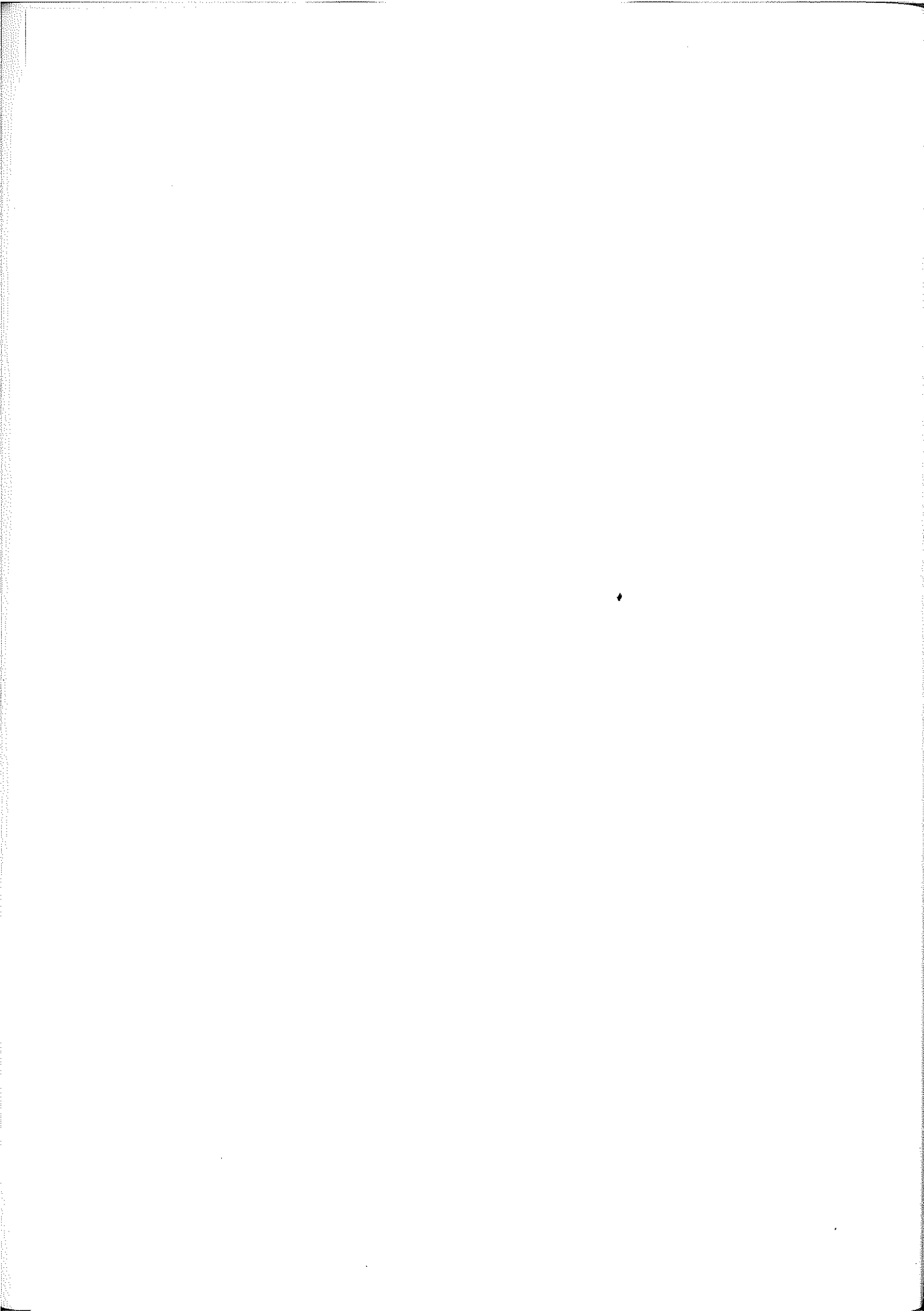
Note: X = main seeding date

Irr 80 and Irr 60 only to be applied for Dicle right bank, Dicle right bank pumped and Batman right and left bank.

**APPENDIX E 10:**

**MODEL DATA FOR THE REST OF TURKEY**

**INPUT OUTPUT COEFFICIENTS**



INPUT OUTPUT COEFFICIENTS

TABLE IOC BASIC PRODUCTION COEFFICIENTS

	SCOMWHDG	FCOMWHP	SCOMWHIL	SDURWHDG	FDURWHP
DRY-VGOOD					
DRY-GOOD	1	0	0	1	0
DRY-EITH	0	2	0	0	2
IRR-GOOD	0	0	0	0	0
IRR-POOR	0	0	1	0	0
IRR-EITH	0	0	1	0	0
A-DURWHE	0	0	0	1	2
A-COMWHE	1	2	1	0	0
FALLOW	0	1	0	0	1
LABOR-1Q	3.3	2.1	2.8	3.3	2.1
LABOR-2Q	22.3	3.6	38.8	22.3	3.6
LABOR-3Q	19.1	5.1	23.9	19.1	5.1
LABOR-4Q	3.6	3.6	11	3.6	3.6
TRACTOR-1Q	0.7	1.3	0	0.7	1.3
TRACTOR-2Q	5.2	3.1	1.1	5.2	3.1
TRACTOR-3Q	2.4	3.9	7.2	2.4	3.9
TRACTOR-4Q	2.8	2.3	6.1	2.8	2.3
NITROGEN	73.6	48	90.8	73.6	48.0
PHOSPHATE	68.5	59.8	71.6	68.5	59.8
S-COMWHEAT	180.9	194.4	243.8	0	0
COMWHEAT	2.2	2.1	3.9	0	0
F-COMWHEAT	2.8	2.3	6	0	0
S-DURWHEAT	0	0	0	217.1	233.3
DURWHEAT	0	0	0	2.2	2.1
F-DURWHEAT	0	0	0	2.8	2.3
+	SCOMWHDV	SDURWHDV			
DRY-VGOOD	1	1			
DRY-GOOD	0	0			
DRY-EITH	0	0			
IRR-GOOD	0	0			
IRR-POOR	0	0			
IRR-EITH	0	0			
A-DURWHE	0	1			
A-COMWHE	1	0			
FALLOW	0	0			
LABOR-1Q	6.6	6.6			
LABOR-2Q	4	4			
LABOR-3Q	0	0			
LABOR-4Q	8	8			
TRACTOR-1Q	0	0			
TRACTOR-2Q	2.3	2.3			
TRACTOR-3Q	0	0			
TRACTOR-4Q	4.9	4.9			
NITROGEN	85.0	85.0			
PHOSPHATE	70.0	70.0			
S-COMWHEAT	243.8				
COMWHEAT	3.5				
F-COMWHEAT	3.9				
S-DURWHEAT		292.6			
DURWHEAT		3.5			
F-DURWHEAT		3.9			
+	SDURWHIL	SCORN-DV	FCORN-DG	SCORN-IL	SRYE--DG
DRY-VGOOD	0	1	0	0	0
DRY-GOOD	0	0	2	0	1
DRY-EITH	0	1	2	0	1
IRR-GOOD	0	0	0	0	0
IRR-POOR	1	0	0	1	0
IRR-EITH	1	0	0	1	0
A-DURWHE	1	0	0	0	0
A-CORN--	0	1	2	1	0
A-RYE---	0	0	0	0	1
FALLOW	0	0	1	0	0
LABOR-1Q	2.8	16	1.4	22.15	1.3
LABOR-2Q	38.8	128.5	70.12	259.55	3.9

INPUT OUTPUT COEFFICIENTS

LABOR-3Q	23.9		72.36	163	3.4
LABOR-4Q	11	162.2		18.1	4
TRACTOR-1Q	0	7.9	1.4	6.15	1.1
TRACTOR-2Q	1.1	3.8	1.92	4.1	3.2
TRACTOR-3Q	7.2		0.36	2	2.1
TRACTOR-4Q	6.1	2.4		1.75	2.8
NITROGEN	90.8	73.9	48	66	40
PHOSPHATE	71.6	42.4	60	32.5	50
S-DURWHEAT	284.6				
DURWHEAT	3.9				
F-DURWHEAT	6				
S-CORN		20	60	60	
CORN		2.23	2.5	4.68	
F-CORN		3	3.4	5	
S-RYE					174.5
RYE					1.66
F-RYE					1.8

+	FRYE--D	SRICE-IL	SRICE-IH	SBARLYDG	FBARLYDP
DRY-VGOOD	0	0	0	0	0
DRY-GOOD	0	0	0	1	0
DRY-EITH	2	0	0	0	2
IRR-GOOD	0	0	1	0	0
IRR-POOR	0	1	0	0	0
IRR-EITH	0	1	1	0	0
A-RYE---	2	0	0	0	0
A-RICE--	0	1	1	0	0
A-BARLEY	0	0	0	1	2
FALLOW	1	0	0	0	1
LABOR-1Q	2.6	22.1	2.2	3.5	3
LABOR-2Q	7.1	205.9	120.9	4	2.4
LABOR-3Q	2.3	183.8	72.1	40.3	3.9
LABOR-4Q	4.7	129.7	2.9	3.2	2.4
TRACTOR-1Q	2.2	0.8	2.2	1.1	2.4
TRACTOR-2Q	6.4	30.4	14.3	2.5	1.8
TRACTOR-3Q	1.0	5.1		3.8	2.9
TRACTOR-4Q	3.5	7.8	2.9	5.3	1.2
NITROGEN	38.5	186.6	384.4	48.5	30
PHOSPHATE	55.0	41.4	65.5	29.8	40
S-RYE	136.5				
RYE	2.0				
F-RYE	2.3				
S-RICE		134.5	240		
RICE		2.35	3.5		
F-RICE		0.5	0.5		
S-BARLEY				195	200
BARLEY				2.1	2.1
F-BARLEY				3.5	3.5

+	SCKPEADP	SCKPEAIL	SDBEANIL	SIENLDP	SDPEASDP
DRY-VGOOD					
DRY-GOOD					
DRY-EITH	1			1	1
IRR-GOOD		1	1		
IRR-POOR					
IRR-EITH		1	1		
A-CHKPEA	1	1			
A-DRBEAN			1		
A-DRYPEA					1
A-LENTIL				1	
LABOR-1Q	2.1	1.8	0.8	5.7	3
LABOR-2Q	39.4	140	201.7		175
LABOR-3Q	82.5	181.9	157.3	144.6	200
LABOR-4Q	2.1	2.5	53	1.4	0
TRACTOR-1Q	2.1	1.8	0.5	1.7	0
TRACTOR-2Q	1.9	2.8	7.1		3.
TRACTOR-3Q	2.1	10.8	1.7	7.1	3.
TRACTOR-4Q	2.1	2.5	0.4	1.4	0



INPUT OUTPUT COEFFICIENTS

NITROGEN		19.6	45.9		30
PHOSPHATE		50	74.4		75
S-CHICKPEA	129.3	90.2			
CHICK-PEA	0.8	1			
S-DRYBEAN			89.9		
DRY-BEAN			1.3		
S-LENTIL				70	
LENTIL				0.8	
S-DRYPEA					120
DRY-PEA					1.5
F-PULSES	0.9	1.5	1.7	0.8	1.5
+	SLENTLDG	SEPOTAIL	SEPOTAIH		
DRY-VGOOD	0	0	0		
DRY-GOOD	1	0	0		
DRY-EITH	1	0	0		
IRR-GOOD	0	0	1		
IRR-POOR	0	1	0		
IRR-EITH	0	1	1		
A-LENTIL	1	0	0		
A-EARPOT	0	1	1		
LABOR-1Q	7.5	109	109		
LABOR-2Q	207.9	489	489		
LABOR-3Q	82.8	72	72		
LABOR-4Q	0.1	3.2	3.2		
TRACTOR-1Q	3.4	23.5	23.5		
TRACTOR-2Q	4.5	12.3	12.3		
TRACTOR-3Q	2.8	.9	.9		
TRACTOR-4Q		3.2	3.2		
NITROGEN	29.9	300	300		
PHOSPHATE	54.1	175	175		
S-LENTIL	68.9				
LENTIL	1				
F-PULSES	1.6				
S-EARLYPOT		2100	2100		
EARLY-POT		20.0	30.0		
+	SDPEASIL	SPOTATIL	SPOTATIH	SONIONDV	SONIONIL
DRY-VGOOD				1	
DRY-GOOD					
DRY-EITH				1	
IRR-GOOD	1		1		
IRR-POOR		1			1
IRR-EITH	1	1	1		1
A-DRYPEA	1				
A-POTATO		1			
A-EARPOT			1		
A-ONION-				1	1
LABOR-1Q	3	15.2	58.8	145.7	315.3
LABOR-2Q	175	230	356.8	205.6	301
LABOR-3Q	200	343.6	97.7	497.5	389.5
LABOR-4Q	0	21	141.2		185.2
TRACTOR-1Q	0	0.9	12.3	5.7	7.9
TRACTOR-2Q	3.	5.9	24.7		
TRACTOR-3Q	3.	10.3	0.4	3.3	2.8
TRACTOR-4Q	0	4.6	22.9		4.7
NITROGEN	30	101.6	279.5	60	99.2
PHOSPHATE	75	73.7	210.5	80	99.1
S-DRYPEA	150				
DRY-PEA	2.0				
S-POTATO		1680.4	2300		
POTATO		20.0	38.0		
S-ONION				310	200
ONION				9.3	18.3
F-PULSES	2.0				
+	STOMATIL	STOMATIH	SAUBERIH	SMELONDP	SMELONDV
DRY-VGOOD					1
DRY-GOOD					
DRY-EITH				1	1

INPUT OUTPUT COEFFICIENTS

IRR-GOOD			1		1		
IRR-POOR	1						
IRR-EITH	1	1			1		
A-CTOMAT	1						
A-FTOMAT		1					
A-AUBERG					1		
A-MELON-					1		1
LABOR-1Q	2.9	92.8	327.1	0.3		59.9	
LABOR-2Q	393.9	588.7	787.6	133.4		68.8	
LABOR-3Q	994.8	438.3	397.2	57.2		15.07	
LABOR-4Q	3.2	138		39.1			
TRACTOR-1Q	2.9	11.8	50.3	0.3		11.15	
TRACTOR-2Q	5.3	16	14.4	9.5		43.75	
TRACTOR-3Q	25.1	21.2	47.4	8		1.6	
TRACTOR-4Q	3.2	1.8		7.5			
NITROGEN	102.4	194.1	311	43.7		79.6	
PHOSPHATE	79.2	49.4	124	31.8		55.6	
S-FRETOMAT		30.0					
S-CONTOMAT	30.0						
FRE-TOMATO		25.5					
CON-TOMATO	35.5						
S-AUBERGIN			20.				
AUBERGINE			33.9				
S-MELON				5.8		6.8	
MELON				10.6		19.7	
+	SMELONIL	SMELONIH	SGRUDNIH	SSESAMDG			
DRY-VGOOD							
DRY-GOOD					1		
DRY-EITH					1		
IRR-GOOD		1	1				
IRR-POOR							
IRR-EITH	1	1	1				
A-MELON-	1	1					
A-GRUNDN			1				
A-SESAME					1		
LABOR-1Q	0.7	6.1	31.4		4.4		
LABOR-2Q	90.1	374.5	170.9		13.9		
LABOR-3Q	189.1	208.8	330.9		80.0		
LABOR-4Q	2.2	1.7	278.4		321.9		
TRACTOR-1Q	0.7	6.1	10.1		4.4		
TRACTOR-2Q	6.4	17.9	5.4		2.9		
TRACTOR-3Q	11.1	4.8	1.5		0.0		
TRACTOR-4Q	2.2	1.7	6.9		6.9		
NITROGEN	35.7	136.1	40.0		105.0		
PHOSPHATE	64.6	73.1	70.0		0.0		
S-MELON	4.6	5.0					
S-GRUNDNUT			130.0				
S-SESAME					60.0		
MELON	12.2	15.7					
GROUNDNUT			2.4				
SESAME					1.0		
+	SWMELOIL	SWMELOIH	SWMELODV	SWMELODP			
DRY-VGOOD				1			
DRY-GOOD							
DRY-EITH				1		1	
IRR-GOOD		1					
IRR-POOR							
IRR-EITH	1	1					
A-WMELON	1	1	1		1		
LABOR-1Q	3.1	6.1	4.1		3.1		
LABOR-2Q	89.9	375.2	81.1		204		
LABOR-3Q	261.6	206.0	110.1		88		
LABOR-4Q	3.1	0.0	0				
TRACTOR-1Q	3.1	6.1	4.1		3.1		
TRACTOR-2Q	4.8	16.4	13.6		1.1		
TRACTOR-3Q	1.6	4.8	2.7		2.6		

INPUT OUTPUT COEFFICIENTS

TRACTOR-4Q	3.1	0.0	0		
NITROGEN	100.0	136.1	80	50.0	
PHOSPHATE	60.0	73.1	55	20.0	
S-WATMELON	4.6	5.0	4.5	3.5	
WAT-MELON	18.3	21.7	12.9	9.5	
+	SCARROIL	SCABBAIL	SLEEKIL	SOKRAIL	SSQUASIL
IRR-GOOD					
IRR-POOR	1	1	1	1	1
IRR-EITH	1	1	1	1	1
A-CARROT	1				
A-CABBAG		1			
A-LEEK			1		
A-OKRA				1	
A-SQUASH					1
LABOR-1Q	117.0	225.8		160.4	
LABOR-2Q	257.9			268.4	549.6
LABOR-3Q	162.0	157.5	388.4	10.0	324.0
LABOR-4Q	0.0	32.4	198.0	193.5	
TRACTOR-1Q	17.2			18.0	
TRACTOR-2Q					20.8
TRACTOR-3Q	3.3	18.2	17.2		2.7
TRACTOR-4Q	3.2	1.8	2.8	1.8	
NITROGEN	95.0	108.0	108	108.0	108.0
PHOSPHATE	75.2	72.0	72	72.0	72.0
S-CARROT	7.5				
S-CABBAGE		75.0			
S-LEEK			4		
S-OKRA				46.0	
S-SQUASH					4
CARROT	23.0				
CABBAGE		30			
LEEK			58		
OKRA				7.0	
SQUASH					33.0
+	SLETTUIL	SSPINAIL	SCUCUMIL	SPEPPEIL	
IRR-GOOD					
IRR-POOR	1	1	1	1	
IRR-EITH	1	1	1	1	
A-LETTUC	1				
A-SPINAC		1			
A-CUCUMB			1		
A-PEPPER				1	
LABOR-1Q	108.9	56.2	4.0	3.3	
LABOR-2Q	193.5	128.0	333.4	344.2	
LABOR-3Q		51.8	859.2	998.7	
LABOR-4Q	135.5	103.5	3.5		
TRACTOR-1Q		8.6	4.0	3.3	
TRACTOR-2Q	3.3	3.3	1.9	6.8	
TRACTOR-3Q			9.5	5.6	
TRACTOR-4Q	17.5	4.4	3.5		
NITROGEN	108.4	100.0	90	110	
PHOSPHATE	72.2	71.4	90	110	
S-LETTUCE	80.0				
S-SPINACH		15			
S-CUCUMBER			5.5		
S-PEPPER				36	
LETTUCE	36				
SPINACH		15.5			
CUCUMBER			27.4		
PEPPER				22.6	
+	SCAUFLIP	SSUNFLDP	SSUNFLIL	SSBEANI	SLINSEDG
DRY-VGOOD					
DRY-GOOD					1
DRY-EITH		1			1
IRR-GOOD	1				

INPUT OUTPUT COEFFICIENTS

IRR-POOR			1		
IRR-EITH	1		1	1	
A-CAULIF	1				
A-SUNFLR		1	1		
A-SBEAN-				1	
A-LINSEE					1
LABOR-1Q	3.5	0.6	3	0	52.3
LABOR-2Q	229	48.8	42.5	0	50.6
LABOR-3Q	550	2.5	37.9	97.2	50.6
LABOR-4Q	0	2.3	4.4	182.1	9.0
TRACTOR-1Q	3.3	0.5	3	0	0
TRACTOR-2Q	6.8	1.1	8.1	0	0.3
TRACTOR-3Q	5.6	1.2	0.9	5.1	0.3
TRACTOR-4Q	0	2.3	2.4	6.2	5.5
NITROGEN	90	33.8	51.9	60.	50.0
PHOSPHATE	80	49.8	42.8	20.0	60.0
S-CAULIFLW	40				
CAULIFLOWR	15				
S-SUNFLWER		5.8	13		
SUNFLOWER		0.7	1.6		
S-SOYABEAN				80	
SOYABEAN				2.1	
S-LINSEED					60.0
LINSEED					0.92
+	SSUNFLDG	SSUNFLDV			
DRY-VGOOD		1			
DRY-GOOD	1				
DRY-EITH	1	1			
IRR-GOOD					
IRR-POOR					
IRR-EITH					
A-SUNFLR	1	1			
LABOR-1Q	1.7	3.2			
LABOR-2Q	35.4	66.9			
LABOR-3Q	23.7				
LABOR-4Q	5.6	3.3			
TRACTOR-1Q	1.7	3.2			
TRACTOR-2Q	6	6.1			
TRACTOR-3Q	0.8				
TRACTOR-4Q	5.1	1.9			
NITROGEN	45.9	52.4			
PHOSPHATE	54	49			
S-SUNFLWER	14.7	14.0			
SUNFLOWER	1.4	1.4			
+	SCOLZAIP	SCOTTNIH	STOBACDG	SSBEETIL	STOBACDV
DRY-VGOOD					1
DRY-GOOD			1		
DRY-EITH			1		1
IRR-GOOD		1			
IRR-POOR					
IRR-EITH	1	1		1	
A-COLZA-	1				
A-COTTON		1			
A-TOBACO			1		1
A-SRBEET				1	
LABOR-1Q	6.0	3.9		15.8	20.6
LABOR-2Q	146.8	253.6	535.8	514.9	912.2
LABOR-3Q	124.8	167	1093.7	199.1	1488.3
LABOR-4Q	2.8	487.3	72.9	331.0	123.9
TRACTOR-1Q	3.2	2.6		4.2	7
TRACTOR-2Q	1.3	5.1	7.6	2.2	11.6
TRACTOR-3Q	0.8	14.4	2.6	4.3	
TRACTOR-4Q	2.8	6.4	1	12.0	0.1
NITROGEN	80.0	146.1		214.9	
PHOSPHATE	70.0	78.8		188.5	
S-COLZA	5.0				

INPUT OUTPUT COEFFICIENTS

COLZA	1.65				
S-COTTON		66.8			
COTTON		2.77			
S-TOBACCO			200.0		210.0
TOBACCO			0.8		0.9
S-SUGRBEET				10.7	
SUGARBEET				44.1	
+	SALFALI	SVETFODP	SVETGRDP	PASTUSE	
DRY-VGOOD					
DRY-GOOD					
DRY-EITH		1	1		
IRR-GOOD					
IRR-POOR					
IRR-EITH	1				
A-ALFALF	1				
A-VETCHF		1			
A-VETCHG			1		
PASTURE				1	
LABOR-1Q		38.7	38.7		3
LABOR-2Q	137.5	45.3	0.0		6
LABOR-3Q	211.3	0.0	60.0		4
LABOR-4Q	7.4	0.0	0.0		2
TRACTOR-1Q		7.2	7.2		
TRACTOR-2Q	3.2	2.2	0.0		
TRACTOR-3Q	3.2	0.0	4.5		
TRACTOR-4Q		0.0	0.0		
NITROGEN	10.9	27.	27		
PHOSPHATE	93.3	54.	54		
S-ALFALFA	15.0				
ALFALFA	11.8				
S-VETCH		100.0	100		
VETCH-FOD		8.5			
VETCH-GRA			2.2		
F-VETCHG			3.3		
PASTFEED				0.25	
+	SCRSILI	SSORGHI	SSOSILI		
DRY-VGOOD					
DRY-GOOD					
DRY-EITH					
IRR-GOOD					
IRR-POOR					
IRR-EITH	1	1	1		
A-CORSIL	1				
A-SORGHU		1			
A-SORSIL			1		
LABOR-1Q					
LABOR-2Q	6.7	6.7	6.7		
LABOR-3Q	537.2	437.2	437.2		
LABOR-4Q	485.0	190.0	485.0		
TRACTOR-1Q					
TRACTOR-2Q	6.7	6.7	6.7		
TRACTOR-3Q	2.2	2.2	2.2		
TRACTOR-4Q	2.7	2.7	2.7		
NITROGEN	140.0	140.0	140.0		
PHOSPHATE	72.0	72.0	72.0		
S-CORN	40.0				
CORN-SIL	47.0				
S-SORGHUM		60	60		
SORGHUM		5.5			
SORGH-SIL			50		
+	PISTA-D	HAZEL-D	TOLIV-D	OOLIV-D	TEA---D
TREE	1	1	1	1	1
A-PISTAC	1				
A-HAZELN		1			
A-TOLIVE			1	0	0

INPUT OUTPUT COEFFICIENTS

A-OOLIVE				1		
A-TEA---					1	
LABOR-1Q	51	3.1	15.5	15.5	100.8	
LABOR-2Q	1.8	69	8.8	8.8	232.9	
LABOR-3Q	161	360.5	1.9	1.9	0	
LABOR-4Q	114	10.6	122.5	122.5	145.1	
TRACTOR-1Q	12	0	3.1	3.1	0	
TRACTOR-2Q	1.8	0	3.1	3.1	0	
TRACTOR-3Q	1.0	9.4	0	0	0	
TRACTOR-4Q	0	0	1.9	1.9	0	
NITROGEN	0	98.6	7.6	7.6	193.1	
PHOSPHATE	20	31.6	5.7	5.7	0	
PISTACHIO	0.30					
HAZELNUT		1.32				
TAB-OLIVE			1.7			
OIL-OLIVE				1.8		
TEA					6.82	
+	TGRAPDV	TGRAPIH	TGRAPIL	WGRAPDG	SULTA-I	
TREE	1	1	1	1	1	
A-TGRAPE	1	1	1	0	0	
A-WGRAPE	0	0	0	1	0	
A-SULTAN	0	0	0	0	1	
LABOR-1Q	370.5	158.9	186.0	33.9	158.9	
LABOR-2Q	173.2	85.5	337.3	50.4	85.5	
LABOR-3Q	352.9	542.4	165.7	36.4	479.5	
LABOR-4Q	0	123.7	58.6	13.3	123.7	
TRACTOR-1Q	0	18.0	2.0	1.0	19.5	
TRACTOR-2Q	3.6	1.9	5.8	2.0	1.9	
TRACTOR-3Q	3.6	22.5	4.4	8.0	18.0	
TRACTOR-4Q	0	0	0.6	0	0	
NITROGEN	47.5	114.9	64.0	51.0	114.9	
PHOSPHATE	47.5	51.5	68.4	65	51.5	
TAB-GRAPE	10.3	14.5	7.5			
WINE-GRAPE				6.8		
SULTANA					12.0	
+	FFIGS-I	DFIGS-I	ORANG-I	LEMON-I		
TREE	1	1	1	1		
A-FFIGS-	1	0	0	0		
A-DFIGS-	0	1	0	0		
A-ORANGE	0	0	1	0		
A-LEMON-	0	0	0	1		
LABOR-1Q	54.6	54.6	671	671		
LABOR-2Q	49.3	49.3	311	311		
LABOR-3Q	655.7	369.4	181	181		
LABOR-4Q	5.2	180.9	474	474		
TRACTOR-1Q	0	0	4.6	4.6		
TRACTOR-2Q	13.3	13.5	0	0		
TRACTOR-3Q	10.3	3.5	0	0		
TRACTOR-4Q	0	0	4.6	4.6		
NITROGEN	11.7	11.7	152	152		
PHOSPHATE	7.7	7.7	152	152		
FRE-FIGS	12.64	0				
DRY-FIGS		12.64				
ORANGE			22.7			
LEMON				25.0		
+	SAPPLEIL	PEARS-I	FPEAC-I	PPEAC-I	SAPRICIL	SAPRICIH
TREE	1	1	1	1	1	1
A-APPLE-	1					
A-PEARS-		1				
A-FPEACH			1			
A-PPEACH				1		
A-APRICO					1	1
LABOR-1Q	114.9	160	320.04	175.4	151.2	16.2
LABOR-2Q	83.7	75	189.9	151.4	647.9	204.6
LABOR-3Q	46.9	200	630.24	721.7	55.4	367.7
LABOR-4Q	145.7	300		36.3		
TRACTOR-1Q	6.5	10	21.04	5	8.6	
TRACTOR-2Q	3.5	0	3	7.8	1.4	0.9

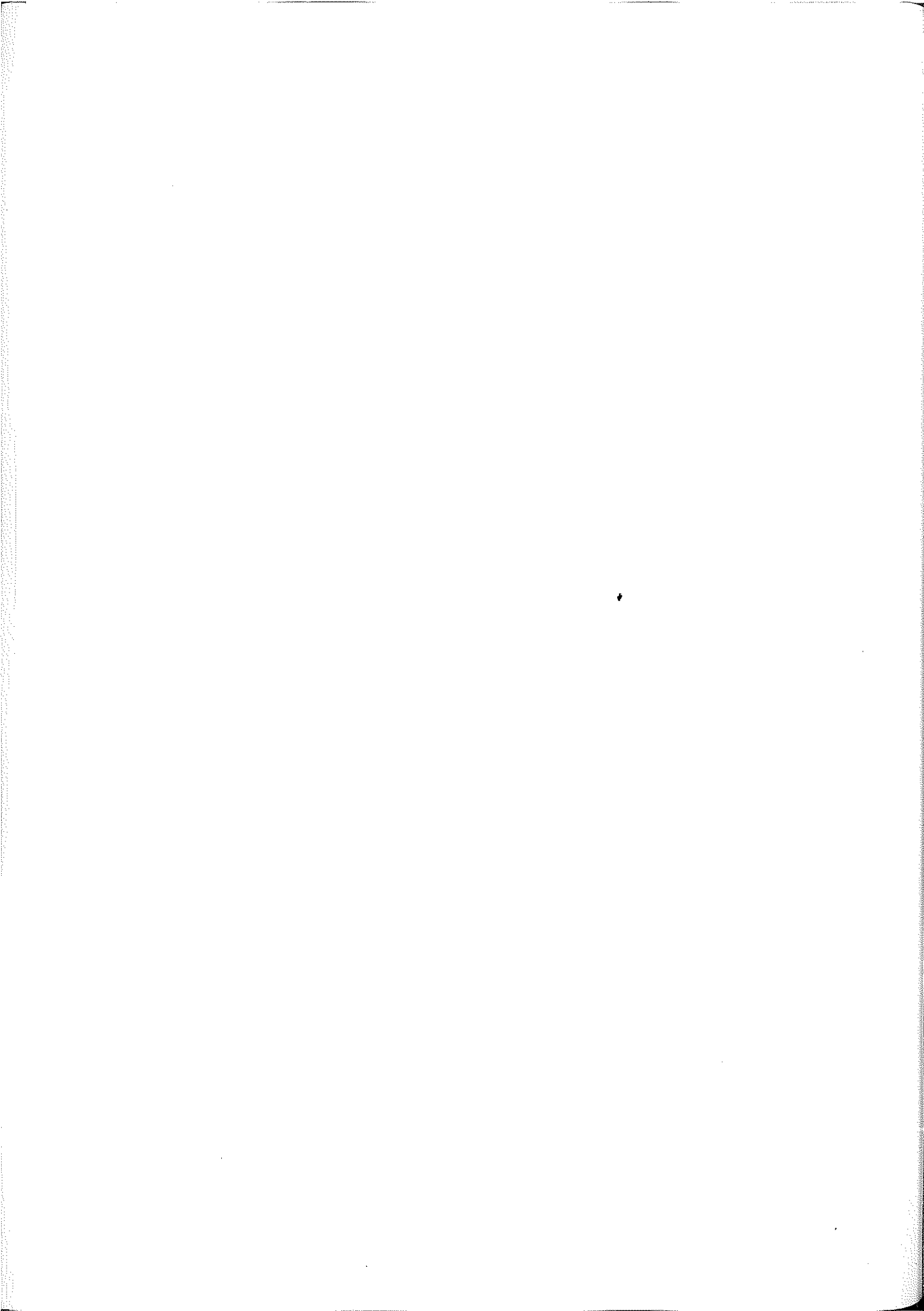
INPUT OUTPUT COEFFICIENTS

TRACTOR-3Q	2.2	0	27.34	10.1	8.6	0.9
TRACTOR-4Q	1.3	0		7.8		
NITROGEN	45.6	75	110.9	30	87	40
PHOSPHATE	59.2	75	24.3	90	61.3	50
APPLE	10					
PEARS		7.5				
FRE-PEACH			9.5			
PRO-PEACH				12.75		
APRICOT					10.7	6.4

+	SCHERRIL	SWCHERIL	SCHERRIH	POMEGR-I	
TREE	1	1	1	1	
A-CHERRY	1		1		
A-WDCHEP		1			
A-POMEGR				1	
LABOR-1Q	207.15	132.85	113.4	240.3	
LABOR-2Q	636.85	171.9	1371.7	186.7	
LABOR-3Q		1079.6	17	476.8	
LABOR-4Q			12	696.7	
TRACTOR-1Q	15.3	4.75			
TRACTOR-2Q	15.5	19.65	15.5		
TRACTOR-3Q		2.8	17		
TRACTOR-4Q			12	6.8	
NITROGEN	187.5	5	50	62.7	
PHOSPHATE	180.2	80	40	68.1	
CHERRY	6.93		7.68		
WILDCHERRY		7.45			
POMEGRAN				8.5	

+	SHEEP	GOAT	ANGORA	CATTLE	BUFFALO
LABOR	11.53	10.53	10.2	110	120
ANIMAL	0	0	0	38	52
TENE	119.4	117.1	113.7	606.7	637.7
TPAST	8	8	8	8	8
TGRCONOIL	32	30	30	40	40
TGROIL	26	26	26	32	35
TOIL	1	1	1	1	1
TSTRAW	10	10	8	12	12
TFODD	4	4	2	6	5
SHEEP-MEAT	8.647	0	0	0	0
SHEEP-MILK	28.765	0	0	0	0
SHEEP-WOOL	1.283	0	0	0	0
SHEEP-HIDE	0.780	0	0	0	0
GOAT-MEAT	0	6.064	0	0	0
GOAT-MILK	0	33.477	0	0	0
GOAT-WOOL	0	0.435	0	0	0
GOAT-HIDE	0	0.590	0	0	0
ANGOR-MEAT	0	0	3.139	0	0
ANGOR-MILK	0	0	11.000	0	0
ANGOR-WOOL	0	0	1.184	0	0
ANGOR-HIDE	0	0	0.241	0	0
COW-MEAT	0	0	0	28.847	0
COW-MILK	0	0	0	662.008	0
COW-HIDE	0	0	0	3.399	0
BUFAL-MEAT	0	0	0	0	36.183
BUFAL-MILK	0	0	0	0	450.678
BUFAL-HIDE	0	0	0	0	5.536

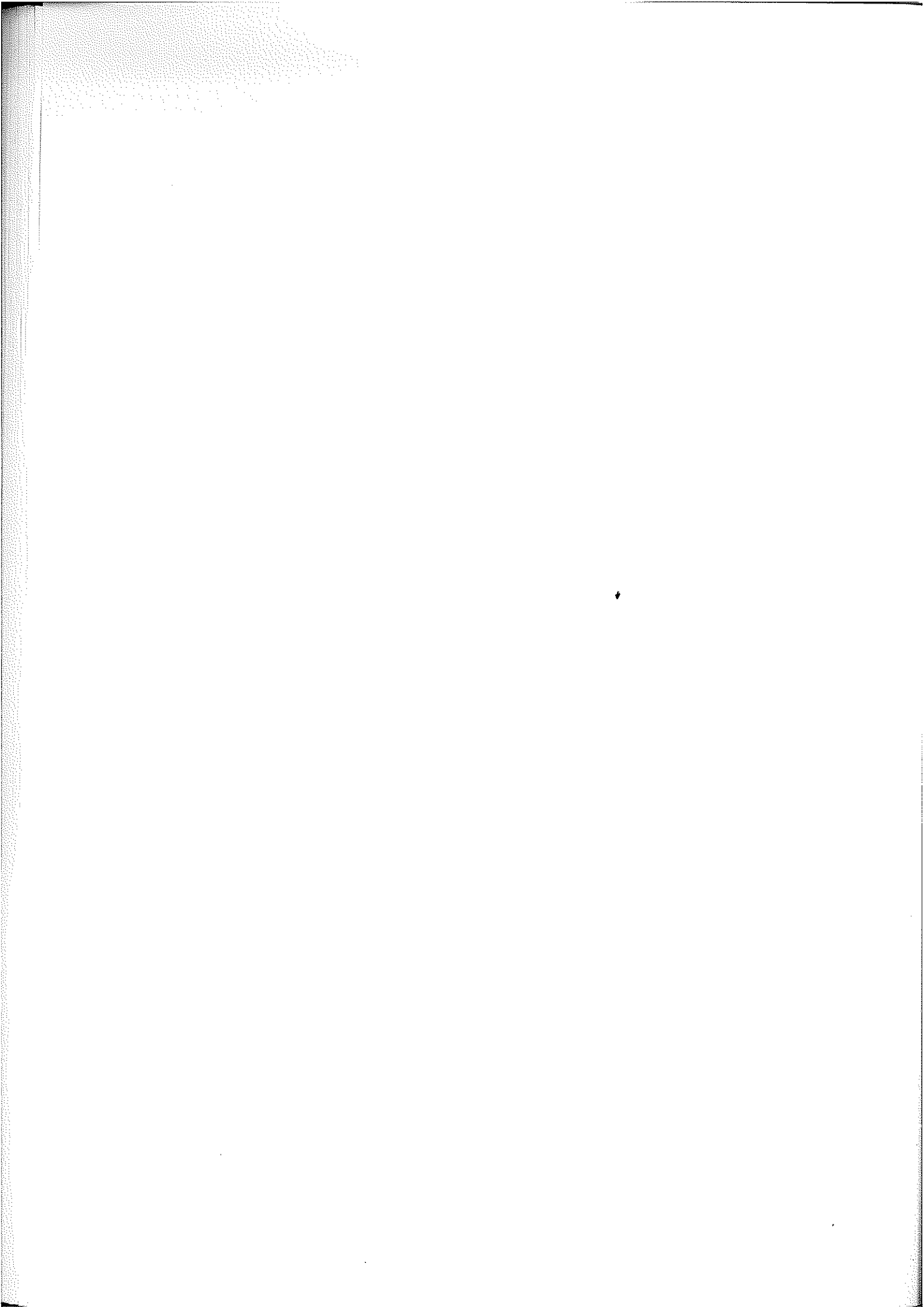
+	POULTRY	
LABOR	5	
ANIMAL	0	
TENE	25	
TPAST	4	
TGRCONOIL	72	
TGROIL	65	
TOIL	4	
TSTRAW	5	
TFODD	0	
POLTR-MEAT	2.240	
EGGS	5.315	





**APPENDIX E 11:**

**MODEL DATA FOR THE REST OF TURKEY  
PRODUCTION AREA AND PRICES FOR THE BASE YEAR**



PRODUCTION AREA AND PRICES FOR THE BASE YEAR

TABLE	DOM	DOMESTIC PRODUCTION DATA			
		DPROD	AREA	YIELDS	DPRICES
COMWHEAT		17425.00	8019.75	2.173	150.00
DURWHEAT		3075.00	1415.25	2.173	158.00
CORN		2000.00	493.25	4.000	163.00
RYE		280.00	180.00	1.556	123.00
BARLEY		7500.00	3445.00	2.177	132.20
RICE		157.50	51.00	3.088	632.40
CHICK-PEA		777.50	778.00	0.999	377.67
DRY-BEAN		211.00	176.00	1.199	949.00
LENTIL		1040.00	983.00	1.058	414.50
DRY-PEA		4.5	2.00	2.250	437.00
POTATO		971.98	39.20	24.770	147.32
EARLY-POT		3379.02	156.80	21.550	169.42
ONION		1345.00	75.00	17.933	169.00
FRE-TOMATO		4200.00	127.27	33.000	312.00
CON-TOMATO		1050.00	23.69	44.330	250.00
AUBERGINE		730.00	21.53	33.900	352.00
MELON		1950.00	130.00	15.000	201.00
CAULIFLOWER		67.00	4.45	15.000	450.00
WAT-MELON		3300.00	206.00	16.020	143.00
CARROT		157.00	6.80	23.000	285.00
CABBAGE		510.00	17.00	30.000	191.00
CUCUMBER		800.00	29.20	27.400	350.00
OKRA		21.00	3.00	7.000	881.00
PEPPER		730.00	32.30	22.600	420.00
LETTUCE		135.00	3.75	36.000	200.00
SPINACH		140.00	9.03	15.500	274.00
SQUASH		300.00	9.10	33.000	288.00
LEEK		310.00	5.40	58.000	220.00
GROUNDNUT		60.00	23.50	2.553	582.00
SESAME		45.00	94.00	0.479	1021.00
SUNFLOWER		1150.00	750.00	1.533	336.00
SOYABEAN		150.00	66.00	2.273	248.00
LINSEED		3.35	4.90	0.684	366.24
COLZA		1.40	1.23	1.138	300.00
COTTON		1395.64	585.80	2.382	678.40
TOBACCO		211.69	238.71	0.887	2904.00
SUGARBEET		11534.15	317.25	36.356	33.00
PISTACHIO		30.00	42.86	0.350	4884.00
HAZELNUT		402.50	359.38	1.120	1628.00
TAB-OLIVE		218.00	128.39	1.698	1891.00
OIL-OLIVE		882.00	547.49	1.611	1378.33
TEA		752.66	86.29	8.722	1250.00
TAB-GRAPE		3000.00	561.18	5.346	209.00
WINE-GRAPE		1111.00	171.80	6.500	200.00
SULTANA		1116.67	310.20	3.600	215.00
FRE-FIGS		70.00	5.55	12.640	494.00
DRY-FIGS		280.00	109.80	2.550	494.00
ORANGE		740.00	32.60	22.700	365.67
LEMON		360.00	18.00	20.00	443.00
APPLE		1950.00	195.00	10.00	333.50
PEARS		410.00	41.00	10.00	415.00
FRE-PEACH		295.20	31.07	9.50	400.00
PRO-PEACH		32.80	2.57	12.7	400.00
APRICOT		284.00	45.00	6.31	505.00
CHERRY		135.00	18.00	7.50	544.00
WILDCHERRY		80.00	10.70	7.45	432.00
POMEGRAN		48.00	5.65	8.50	250.00
SHEEP-MEAT		392.435	71562.33	7.765	1272.50
SHEEP-MILK		1305.471	71562.33	24.381	391.00
SHEEP-WOOL		58.227	71562.33	1.279	2552.00
SHEEP-HIDE		35.399	71562.33	0.676	3752.00
GOAT-MEAT		66.534	15315.44	6.857	1200.00
GOAT-MILK		367.309	15315.44	37.578	391.00
GOAT-WOOL		4.773	15315.44	0.632	1297.00
GOAT-HIDE		6.473	15315.44	0.484	3750.00

PRODUCTION AREA AND PRICES FOR THE BASE YEAR

ANGOR-MEAT	6.100	2324.28	1.852	1250.00
ANGOR-MILK	21.360	2324.28	15.177	391.00
ANGOR-WOOL	2.300	2324.28	1.462	4446.00
ANGOR-HIDE	0.470	2324.28	0.173	3750.00
COW-MEAT	362.376	15628.74	24.105	1265.00
COW-MILK	8316.144	15628.74	218.032	335.00
COW-HIDE	42.698	15628.74	4.150	1000.00
BUFAL-MEAT	17.549	608.02	32.724	1260.00
BUFAL-MILK	218.579	608.02	288.969	335.00
BUFAL-HIDE	2.685	608.02	3.521	1000.00
POLTR-MEAT	143.31	63986.95	2.240	2182.00
EGGS	340.08	63986.95	5.315	1560.00
ALFALFA	2132.26	184.07	11.590	0
VETCH-FOD	896.46	350.19	2.560	0
VETCH-GRA	204.20	350.19	0.580	
CORN-SIL	405.69	6.75	60.000	
SORGHUM	0.1			
SORGH-SIL	0.1			

**APPENDIX E 12:**  
**MODEL DATA FOR THE REST OF TURKEY**  
**FOREIGN TRADE**

1000  
1000  
1000

TABLE	TRADE	FOREIGN TRADE DATA		
		EXP-Q	EXP-P	PFACT10
	COMWHEAT	1478.00	81.75	1.46
	DURWHEAT	1005.00	86.80	1.46
	CORN		110.00	1.39
	RYE	0.12	77.27	1.39
	BARLEY	452.73	88.83	1.39
	RICE			1.72
	CHICK-PEA	536.42	221.58	1.15
	DRY-BEAN	33.75	460.48	1.15
	LENTIL	606.49	220.30	1.16
	DRY-PEA	0.29	311.17	1.15
	POTATO	3.43	40.00	1.15
	EARLY-POT	10.00	45.00	1.15
	ONION	164.01	76.56	1.24
	FRE-TOMATO	148.55	114.63	1.24
	CON-TOMATO	589.67	114.63	1.24
	AUBERGINE	2.09	291.31	1.24
	MELON	29.04	140.45	1.24
	CAULIFLOWR	1.14	144.17	1.24
	WAT-MELON	14.51	117.10	1.24
	CARROT	8.00	123.83	1.24
	CABBAGE	2.41	130.05	1.24
	CUCUMBER	7.45	379.15	1.24
	OKRA	1.01	476.46	1.24
	PEPPER	15.13	478.38	1.24
	LETTUCE	0.77	109.68	1.24
	SPINACH	0.08	168.90	1.24
	SQUASH	0.78	269.39	1.24
	LEEK	10.98	147.52	1.24
	GROUNDNUT	9.40	772.65	1.43
	SESAME			1.22
	SUNFLOWER		250.00	1.22
	SOYABEAN			1.19
	LINSEED	0.10	676.53	1.19
	COLZA			
	COTTON	325.92	923.77	1.18
	TOBACCO	64.16	2679.29	1.14
	SUGARBEET		30.00	1.55
	PISTACHIO	8.74	2576.49	1.12
	HAZELNUT	330.55	1476.29	1.12
	TAB-OLIVE	15.69	519.03	1.20
	OIL-OLIVE	103.89	519.03	1.20
	TEA	1.60	250.00	1.10
	TAB-GRAPE	17.43	211.48	1.20
	WINE-GRAPE	11.51	121.17	1.12
	SULTANA	514.18	230.86	1.12
	FRE-FIGS	3.71	366.33	1.20
	DRY-FIGS	48.72	366.33	1.12
	ORANGE	87.20	160.62	1.20
	LEMON	123.93	182.48	1.20
	APPLE	68.08	150.74	1.2
	PEARS		150.00	1.2
	FRE-PEACH	7.00	148.96	1.2
	PRO-PEACH	0.07	148.76	1.12
	APRICOT	138.07	214.81	1.2
	CHERRY	3.69	517.16	1.2
	WILDCHERRY	9.13	716.89	1.2
	POMEGRAN	3.63	215.45	1.2
	SHEEP-MEAT	164.79	1756.64	1.5
	SHEEP-MILK			1.45
	SHEEP-WOOL			1.2
	SHEEP-HIDE			1.2
	GOAT-MEAT	10.03	1832.86	1.5
	GOAT-MILK			
	GOAT-WOOL	1.79	3500.00	1.2
	GOAT-HIDE			1.2

## FOREIGN TRADE

ANGOR-MEAT	3.00	1832.86	1.5
ANGOR-MILK			
ANGOR-WOOL	1.5	4467.72	1.25
ANGOR-HIDE			1.2
COW-MEAT			1.5
COW-MILK			
COW-HIDE			
BUFAL-MEAT			
BUFAL-MILK			
BUFAL-HIDE			
POLTR-MEAT	1.60	617.17	1.33
EGGS	9.69	781.81	1.18
+	IMP-Q	IMP-P	
COMWHEAT			
DURWHEAT			
CORN	243.96	121.48	
RYE			
BARLEY			
RICE	90.90	207.00	
CHICK-PEA			
DRY-BEAN			
LENTIL			
DRY-PEA			
POTATO			
EARLY-POT			
ONION			
FRE-TOMATO			
CON-TOMATO			
AUBERGINE			
MELON			
CAULIFLOWR			
WAT-MELON			
CARROT			
CABBAGE			
CUCUMBER			
OKRA			
PEPPER			
LETTUCE			
SPINACH			
SQUASH			
LEEK			
GROUNDNUT			
SESAME	5.06	627.74	
SUNFLOWER	247.60	379.92	
SOYABEAN	123.14	932.00	
LINSEED			
COLZA			
COTTON			
TOBACCO			
SUGARBEET	484.59	39.500	
PISTACHIO			
HAZELNUT			
TAB-OLIVE			
OIL-OLIVE			
TEA			
TAB-GRAPE			
WINE-GRAPE			
SULTANA			
FRE-FIGS			
DRY-FIGS			
ORANGE			
LEMON			
APPLE			
PEARS			
FRE-PEACH			
PRO-PEACH			



APRICOT  
 CHERRY  
 WILDCHERRY  
 POMEGRAN  
 SHEEP-MEAT  
 SHEEP-MILK 0.44 1047.67  
 SHEEP-WOOL 29.39 1500.00  
 SHEEP-HIDE 29.49 2380.61  
 GOAT-MEAT  
 GOAT-MILK  
 GOAT-WOOL  
 GOAT-HIDE 3.00 2519.66  
 ANGOR-MEAT  
 ANGOR-MILK  
 ANGOR-WOOL  
 ANGOR-HIDE 0.77 2519.66  
 COW-MEAT 258.34 1389.75  
 COW-MILK 7.00 1047.67  
 COW-HIDE  
 BUFAL-MEAT  
 BUFAL-MILK  
 BUFAL-HIDE  
 POLTR-MEAT  
 EGGS

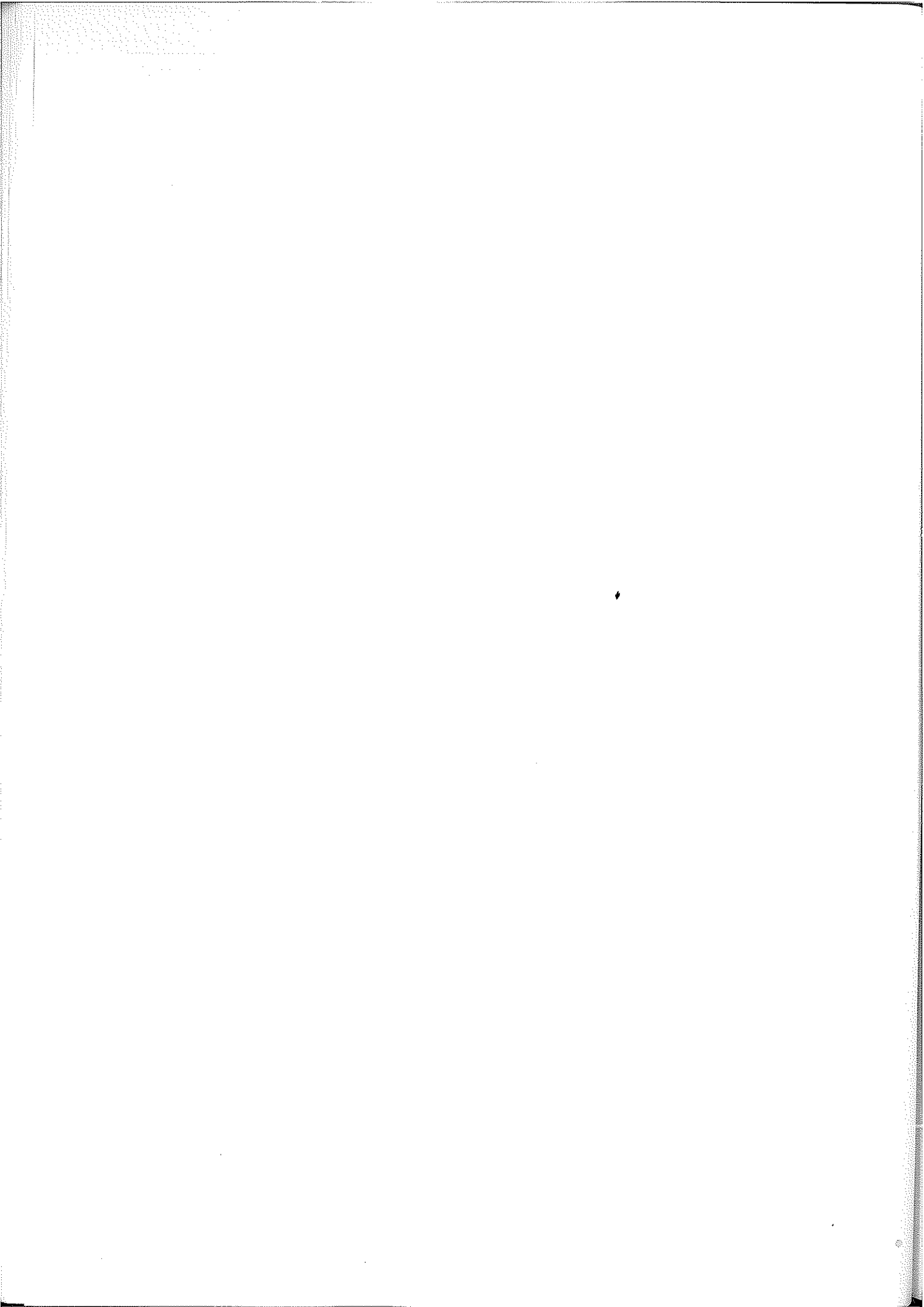
TABLE	TRADE2010		FOREIGN TRADE DATA					
	EXP-Q	EXP-P	ECX-Q	ECX-P	INT-Q	INT-P	WOX-Q	WOX-P
COMWHEAT	1500.00	88.00	16	207	530	168	9999	88
DURWHEAT	1000.00	330.00	300	332	500	331	2500	330
CORN	650.00	108.00	4300	243	0	181	9999	108
RYE	2.10	134.00	0	209	36	167	120	134
BARLEY	2000.00	86.00	45	200	205	160	1000	86
RICE		289.00	330	351	10	306	10	289
CHICK-PEA	700.00	227.00	250	228			350	227
DRY-BEAN	110.00	503.00	15	504		363	9999	503
LENTIL	610.00	619.00	50	578			50	619
DRY-PEA	0.30	418.00	45	293		282	9999	418
POTATO	100.00	38.00	1	152			5	38
EARLY-POT	200.00	95.00	1	289			15	95
ONION	350.00	76.00	15	209			160	76
FRE-TOMATO	400.00	143.00	25	456	9999	45	9999	143
CON-TOMATO	1100.00	109.00	9	243		138	1000	109
AUBERGINE	4.80	369.00	2	363	9999	74	5	369
MELON	60.00	134.00	20	469			30	110
CAULIFLOWR	1.50	190.00	0	547	9999	70	2	190
WAT-MELON	30.00	112.00						
CARROT	10.00	154.00						
CABBAGE	3.00	162.00						
CUCUMBER	10.00	474.00						
OKRA	1.50	595.00						
PEPPER	30.00	598.00						
LETTUCE	1.00	137.00						
SPINACH	0.10	211.00						
SQUASH	1.00	336.00						
LEEK	12.00	184.00						
GROUNDNUT	30.00	618.00						
SESAME								
SUNFLOWER	80.00	257.00	230	258		572	1500	257
SOYABEAN		246.00	150	247		462	750	246
LINSEED	2.00	127.00	6	128		579	750	127
COLZA		203.00	3	204		381	25	203
COTTON	700.00	515.00	500	516		986	200	515
TOBACCO	150.00	1980.00	10	2387	10	2160	100	1980
SUGARBEET	600.00	37.00	600	39	1086	38	9999	37
PISTACHIO	15.00	2456.00	5	2457			9	2456
HAZELNUT	350.00	1397.00	200	1398			160	1397
TAB-OLIVE	22.00	493.00	7	494			15	493
OIL-OLIVE	150.00	406.00	10	407	24	406	100	406

FOREIGN TRADE

TEA	30.00	503.00	1	504			1	503
TAB-GRAPE	50.00	201.00	5	585		118	10	201
WINE-GRAPE	30.00	110.00	3	111	48	99	50	110
SULTANA	1000.00	219.00	300	218	0	384	500	219
FRE-FIGS	8.00	314.00	2	793			4	314
DRY-FIGS	100.00	348.00	30	370		916	30	348
ORANGE	400.00	153.00	30	280	1	121	9999	153
LEMON	280.00	173.00	20	560	54	113	9999	173
APPLE	260.00	143.00	50	421	59	82	50	143
PEARS	260.00	165.00	50	469	18	70	1	165
FRE-PEACH	22.00	143.00	1	462	59	78	9999	143
PRO-PEACH	0.20	119.00	0	301	0	196	9999	119
APRICOT	280.00	203.00	100	718	2	112	9999	203
CHERRY	4.00	491.00	1	1285			4	491
WILDCHER	10.00	681.00	5	638			5	681
POMEGRAN	8.40	210.00						
SHEEP-MEAT	525.00	883.00	8	1336	10	1005	150	883
SHEEP-MILK		132.00	0	461	0	252	1	132
SHEEP-WOOL		1464.00	1	974			2	1464
SHEEP-HIDE		5372.00	1	4286			1	5372
GOAT-MEAT	33.00	883.00	0	1256	1	966	15	883
GOAT-MILK		132.00	0	301	0	236	5	132
GOAT-WOOL	2.00	3675.00	1	2448			2	3675
GOAT-HIDE		5372.00	1	4286			1	5372
ANGOR-MEAT	9.00	883.00	0	1256	0	966	5	883
ANGOR-MILK		132.00	0	301	0	236	1	132
ANGOR-WOOL	1.75	4620.00	2	3076			5	4620
ANGOR-HIDE		5373.00	0	4287			1	5373
COW-MEAT		1568.00	5	1413	0	1128	10	1568
COW-MILK		132.00	1	343	10	252	2	132
COW-HIDE		2027.00	1	1621*			1	2027
BUFAL-MEAT		1568.00	0	1413	0	1128	1	1568
BUFAL-MILK		132.00	0	343	0	252	1	132
BUFAL-HIDE		2027.00	0	1621			1	2027
POLTR-MEAT	58.00	1030.00	1	1177			1	1030
EGGS	60.00	330.00	1	835			10	330
+	IMP-Q	IMP-P	ECM-Q	ECM-P	WOM-Q	WOM-P	PRO-S	
COMWHEAT		89	9999	208	9999	209		
DURWHEAT		331	9999	333	9999	334	64	
CORN		109	0	244	9999	245		
RYE		135	9999	210	9999	211		
BARLEY		86	9999	201	9999	202		
RICE	600.00	290	0	352	9999	353		
CHICK-PEA		228	0	229	9999	230		
DRY-BEAN		504	0	505	9999	506	49	
LENTIL		620	0	579	9999	580		
DRY-PEA		419	0	294	9999	295	47	
POTATO		39	100	153	0	154		
EARLY-POT		96	100	290	0	291		
ONION		77	100	210	0	211		
FRE-TOMATO		144	100	449	50	450		
CON-TOMATO		110	9999	244	9999	245	57	
AUBERGINE		370	0	364	9999	365		
MELON		111	0	470	0	471		
CAULIFLOWR		191	0	548	20	549		
WAT-MELON								
CARROT								
CABBAGE								
CUCUMBER								
OKRA								
PEPPER								
LETTUCE								
SPINACH								
LEEK								
GROUNDNUT								
SESAME	10.00	458						
SUNFLOWER		258	0	259	9999	260	170	

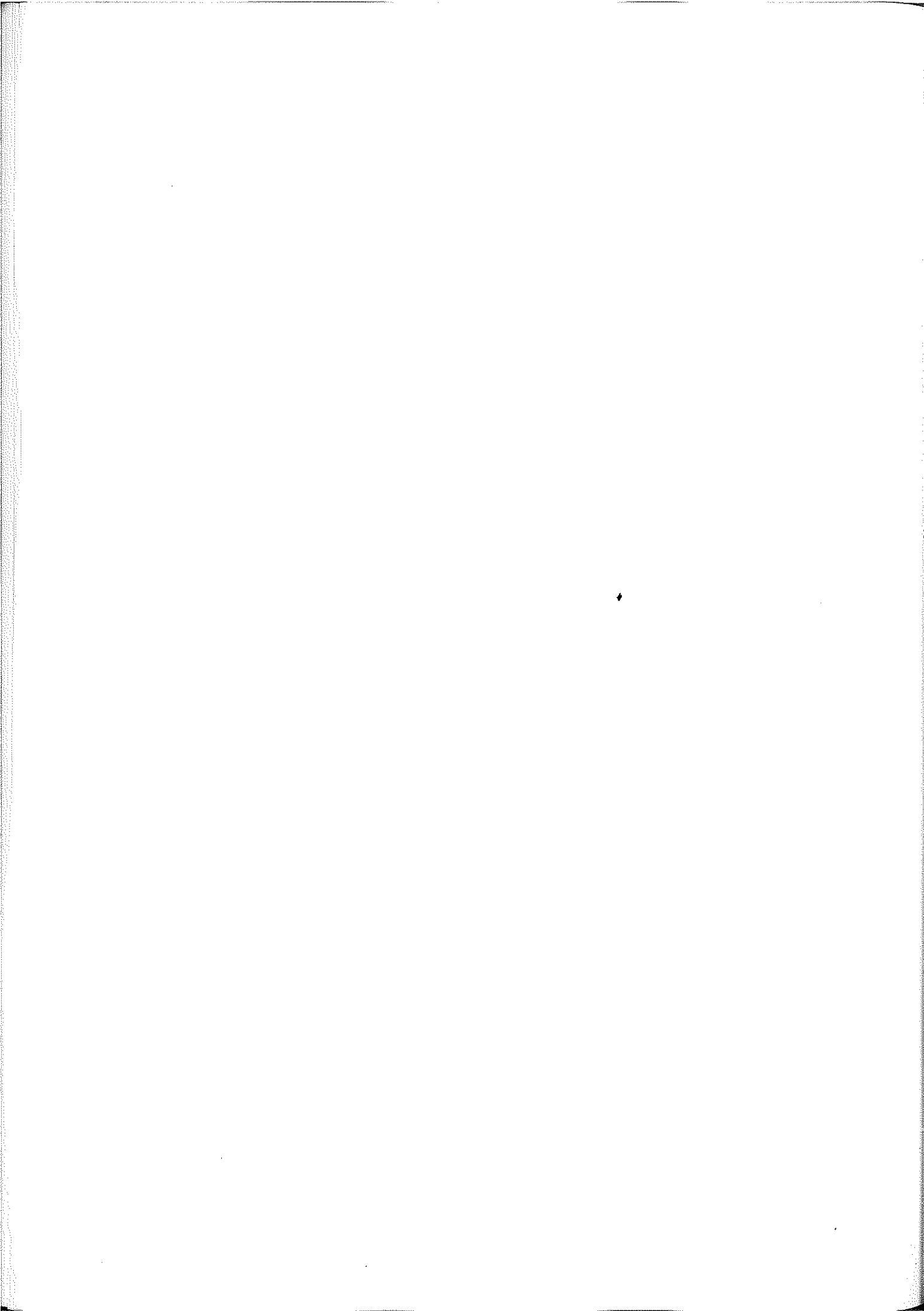
## FOREIGN TRADE

SOYABEAN	2100.00	247	0	248	9999	249	136
LINSEED		128	0	129	9999	130	228
COLZA		204	0	205	9999	206	110
COTTON		516	0	517	9999	518	284
TOBACCO		1981	50	2388	9999	2389	1194
SUGARBEET		38	9999	40	9999	41	
PISTACHIO		2457	0	2458	9999	2459	
HAZELNUT		1398	0	1399	9999	1400	
TAB-OLIVE		494	0	495	9999	496	
OIL-OLIVE		407	9999	408	9999	409	248
TEA		504	0	505	9999	506	
TAB-GRAPE		502	0	586	9999	587	
WINE-GRAPE		111	9999	112	9999	113	
SULTANA		220	0	219	9999	220	95
FRE-FIGS		315	0	794	9999	795	
DRY-FIGS		349	0	371	9999	372	193
ORANGE		154	10	281	9999	282	
LEMON		174	20	561	9999	562	
APPLE		144	20	422	9999	423	
PEARS		166	20	470	9999	471	
FRE-PEACH		144	20	463	9999	464	
PRO-PEACH		120	100	302	9999	303	120
APRICOT		204	20	719	9999	720	
CHERRY		492	0	1286	9999	1287	
WILDCHER		682	0	639	9999	640	
POMEGRAN							
SHEEP-MEAT		884	0	1337	9999	1338	551
SHEEP-MILK	2.00	133	10	462	9999	463	
SHEEP-WOOL	64.00	1465	100	975	9999	976	
SHEEP-HIDE	30.00	5373	100	4287	9999	4288	
GOAT-MEAT		8844	0	1257	9999	1258	551
GOAT-MILK		133	10	302	9999	303	
GOAT-WOOL		3676	0	2449	9999	2450	
GOAT-HIDE	3.00	5373	5	4287	9999	4288	
ANGOR-MEAT		884	0	1257	9999	1258	551
ANGOR-MILK		133	0	302	9999	303	
ANGOR-WOOL		4621	0	3077	9999	3078	
ANGOR-HIDE	1.00	5374	0	4288	9999	4289	
COW-MEAT	14.00	1569	9999	1414	9999	1415	18
COW-MILK	7.00	133	9999	344	9999	345	
COW-HIDE		2028	10	1622	9999	1623	
BUFAL-MEAT		1569	0	1414	9999	1415	
BUFAL-MILK		133	0	344	9999	345	
BUFAL-HIDE		2028	0	1622	9999	1623	
POLTR-MEAT		1031	9999	1178	9999	1179	
EGGS		331	350	836	9999	837	



**APPENDIX E 13:**

**MODEL DATA FOR THE REST OF TURKEY  
RESOURCES AVAILABILITIES AND PRICES**



RESOURCES AVAILABILITIES AND PRICES

TABLE RES	RESOURCE DATA		PRICE	REINDEX	PQP3	QINDEX2010
PINDEX2010	QUANT					
DRY-VGOOD	1527.00	0		1	1.000	
DRY-GOOD	10552.00	0		1	0.961	
DRY-EITH	16574.00	0		1	0.950	
IRR-GOOD	899.0	0		1	1.463	
IRR-POOR	1878.3	0		1	1.222	
IRR-EITH	2777.3	0		1	1.300	
TREE	1982	0		1	1.070	
PASTURE	21746	0		1	1.000	
LABOR-1Q	2700000	750.0		1	1.010	1.1
LABOR-2Q	2700000	750.0		1	1.010	1.1
LABOR-3Q	2700000	750.0		1	1.010	1.1
LABOR-4Q	2700000	750.0		1	1.010	1.1
TRACTOR-1Q	247000	7.45		1	1.170	1.1
TRACTOR-2Q	247000	7.45		1	1.170	1.1
TRACTOR-3Q	247000	7.45		1	1.170	1.1
TRACTOR-4Q	247000	7.45		1	1.170	1.1
LABORG	100000	750.0		1	1.400	1.1
TRACTORG	3650	7.45		1	3.000	1.1
NITROGEN	953181	0.312	0.795		2.000	1.1
PHOSPHATE	519677	0.26	0.508		2.000	1.1
SHEEP	48707	0		1	0.00019	1.100
GOAT	13615	0		1	0.00051	1.100
ANGORA	3112	0		1	0.00001	1.100
CATTLE	14099	0		1	0.00943	1.100
BUFFALO	758	0		1	0.15263	1.100
POULTRY	63987	0		1	0.00006	1.200
S-COMWHEAT	0	160		1		1.1
S-DURWHEAT		180		1		1.1
S-CORN	0	1800		1		1.1
S-RYE	0	119		1		1.1
S-BARLEY	0	130		1		1.1
S-RICE	0	500		1		1.1
S-CHICKPEA	0	285		1		1.1
S-DRYBEAN	0	950		1		1.1
S-LENTIL	0	325		1		1.1
S-DRYPEA		800		1		1.1
S-POTATO	0	150		1		1.1
S-EARLYPOT		200		1		1.1
S-ONION	0	375		1		1.1
S-FRETOMAT	0	5000		1		1.1
S-CONTOMAT		5000		1		1.1
S-AUBERGIN		7500		1		1.1
S-MELON	0	5750		1		1.1
S-CAULIFLW		25000		1		1.1
S-WATMELON		5750		1		1.1
S-CARROT		40000		1		1.1
S-CABBAGE		2500		1		1.1
S-CUCUMBER		37000		1		1.1
S-OKRA		35000		1		1.1
S-PEPPER		6700		1		1.1
S-LETTUCE		2500		1		1.1
S-SPINACH		3700		1		1.1
S-SQUASH		5900		1		1.1
S-LEEK		44450		1		1.1
S-GRUNDNUT		1300		1		1.1
S-SESAME		1500		1		1.1
S-SUNFLWER	0	600		1		1.1
S-SOYABEAN	0	700		1		1.1
S-LINSEED		500		1		1.1
S-COLZA		400		1		1.1
S-COTTON	0	355		1		1.1
S-TOBACCO	0	3500		1		1.1
S-SUGRBEET	0	1500		1		1.1
S-ALFALFA	0	2000		1		1.1
S-VETCH	0	175		1		1.1

RESOURCES AVAILABILITIES AND PRICES

S-SORGHUM		200	1		1.1
PISTA-D	0	500000	1	1.050	1.15
HAZEL-D	0	75000	1	1.050	1.15
TOLIV-D	0	45000	1	1.050	1.15
OOLIV-D		45000	1	1.050	1.15
TEA---D	0	120000	1	1.050	1.15
TGRAPDW	0	145000	1	1.050	1.15
TGRAPIH	0	185000	1	1.050	1.15
WGRAPDG		145000	1	1.050	1.15
WGRAPIL		145000	1	1.050	1.15
SULTA-I		185000	1	1.050	1.15
FFIGS-I		180000	1	1.050	1.15
DFIGS-I		180000	1	1.050	1.15
ORANG-I	0	240000	1	1.050	1.15
LEMON-I		240000	1	1.050	1.15
SAPPLEIL	0	185000	1	1.050	1.15
PEARS-I		185000	1	1.050	1.15
FPEAC-I	0	505000	1	1.050	1.15
PPEAC-I		505000	1	1.050	1.15
SAPRICIL	0	270000	1	1.050	1.15
SAPRICIH		270000	1	1.050	1.15
SCHERRIL	0	360000	1	1.050	1.15
SCHERRIH		360000	1	1.050	1.15
SWCHERIL	0	360000	1	1.050	1.15
POMEGR-I		300000	1	1.050	1.15
* ANNUALIZED SET-UP COSTS FOR GAP					
APPI		185000			1.15
APRI		270000			1.15
CRRI		360000			1.15
FGDI		180000			1.15
FGFI		180000			1.15
GRSI		185000			1.15
GRTD		145000			1.15
GRTI		145000			1.15
GRWD		145000			1.15
OLOD		45000			1.15
OLTD		45000			1.15
PARI		185000			1.15
PCFI		505000			1.15
PCPI		505000			1.15
PISD		500000			1.15
POMI		300000			1.15
WCRI		360000			1.15



**APPENDIX F:**  
**MODEL OUTPUT OF TURGAP**  
**(YEAR 2010 - BASE)**