

Appendix VI. A1.

ARLINGTON RESEARCH STATION WICST - INPUT/OUTPUT DATA - Cash Grain Rotations - 1990

Crop Rotation Treatment Plot #'s	Continuous Corn R1 1 109,204,306,412	Filler Corn R2 2 108,206,310,408	Narrow Row Beans R2 3 101,214,303,401	Filler Corn R3 4 104,201,301,402	Wide Row Beans R3 5 106,202,307,411	Filler Corn R3 6 102,212,313,407
Primary Tillage	Chisel Plow 11/89	Chisel Plow 11/89	Chisel Plow 11/89	Chisel Plow 11/89	Chisel Plow 11/89	Chisel Plow 11/89
Secondary Tillage	Disk Soil Finisher	Disk Soil Finisher	Disk Soil Finisher	Disk Soil Finisher	Disk Soil Finisher	Disk Soil Finisher
Planting Date	5/1/90	5/1/90	5/15/90	5/1/90	5/15/90 soybean 9/12/90 wheat	5/1/90
Variety	DeKalb 547	DeKalb 547	Pioneer 9272	DeKalb 547	Pioneer 9272 Caldwell-wheat	DeKalb 547
Population	32,100	32,100	205,500	32,100	149,430 soybean 120 lb/A wheat	32,100
Fertilizer	100 lb 6-24-24 73 lb 82-0-0	104 lb 82-0-0	None	104 lb 82-0-0	None	104 lb 82-0-0
Pesticides	Atrazine 2 qt/A Lasso 2.5 qt/A preemerge Counter 15G 9 lb/A planter applied	2,4-D 1 pt/A post Counter 15G 9 lb/A planter applied	Treflan 1.5 pt/A Lexone DF .75 lb/A ppi	Counter 15G 9 lb/A planter applied	None	Counter 15G 9 lb/A planter applied
Mechanical Weeding	No-till cult. 6/18/90	Rotary hoe 5/14,24, 6/8/90 No-till cult. 6/18, 6/20/90	None	Rotary hoe 5/14,24, 6/8/90 No-till cult. 6/18, 6/20/90	Rotary hoe 5/24, 6/6/90 No-till cult. 6/16, 6/27/90	Rotary hoe 5/14,24, 6/8/90 No-till cult. 6/18, 6/20/90
Harvest	10/30/90	10/29/90	10/16/90	10/30/90	10/16/90	10/29/90
Yield	166 bu/A	155 bu/A	57 bu/A	148 bu/A	52 bu/A	150 bu/A
1991 Crops	Corn	Narrow Row Beans	Corn	Filler Corn	Wheat/ Red Clover	Wide Row Beans

Appendix VI. A2.

ARLINGTON RESEARCH STATION WICST - INPUT/OUTPUT DATA - Forage Rotations - 1990

Crop Rotation Treatment Plot #'s	D. S. Alfalfa R4 7 111,209,305,409	Filler Corn R4 8 113,210,311,414	Filler Corn R4 9 105,203,308,406	Filler Corn R4 10 107,205,309,404	Oats/Alfalfa R5 11 110,208,304,413	Filler Corn R5 12 103,213,314,410	Filler Corn R5 13 114,211,312,403	Pasture R6 14 112,207,303,405
Primary Tillage	Chisel Plow 11/89	Chisel Plow 11/89	Chisel Plow 11/89	Chisel Plow 11/89	Chisel Plow 11/89	Chisel Plow 11/89	Chisel Plow 11/89	Chisel Plow 11/89
Secondary Tillage	Disk Disk Soil Finisher	Disk Soil Finisher	Disk Soil Finisher	Disk Soil Finisher	Disk Disk Soil Finisher	Disk Soil Finisher	Disk Soil Finisher	Disk Disk Soil Finisher
Planting Date	4/23/90	5/1/90	5/1/90	5/1/90	4/23/90	5/1/90	5/1/90	4/23/90
Variety	Magnum III	DeKalb 547	DeKalb 547	DeKalb 547	Horicon-oats Magnum III-alf.	DeKalb 547	DeKalb 547	Marathon-rd clov. Toro-timothy Badger-brome
Population	15 lb/A	32,100	32,100	32,100	70 lb/A oats 15 lb/A alfalfa	32,100	32,100	7 lb/A rd clov. 4 lb/A timothy 8 lb/A brome
Fertilizer	20 T/A manure 4/23/90 2 T/A lime 10/29/90	20 T/A manure 10/29/90 2 T/A lime 10/29/90	2 T/A lime 10/29/90	2 T/A lime 10/29/90	15 T/A manure 4/23/90 2 T/A lime 10/29/90	15 T/A manure 10/23/90 2 T/A lime 10/23/90	2 T/A lime 10/29/90	10 T/A manure 4/23/90 10/29/90
Pesticides	Eptam 2 qt/A ppi	2,4-D 1 pt/A post	None	None	None	None	None	None
Mechanical Weeding		Rotary hoe 5/14,24, 6/8/90 No-till cult. 6/18, 6/20/90	Rotary hoe 5/14,24, 6/8/90 No-till cult. 6/18, 6/20/90	Rotary hoe 5/14,24, 6/8/90 No-till cult. 6/18, 6/20/90		Rotary hoe 5/14,24, 6/8/90 No-till cult. 6/18, 6/20/90	Rotary hoe 5/14,24, 6/8/90 No-till cult. 6/18, 6/20/90	
Harvest	7/3/90 8/14/90 10/24/90	10/29/90	10/30/90	10/30/90	6/25/90 oatlage 8/7/90 alfalfa 10/24/90	10/29/90	10/29/90	7/3/90 8/14/90 10/24/90
Yield	4.3 T DM/A	155 bu/A	146 bu/A	148 bu/A	2.1 T DM/A oat. 2.1 T DM/A alf.	151 bu/A	144 bu/A	4.0 T DM/A
1991 Crops	Alfalfa Hay	D.S. Alfalfa	Filler Corn	Filler Corn	Alfalfa Hay	Oats/Alfalfa	Filler Corn	Pasture