

Appendix I. ARLINGTON AGRICULTURAL RESEARCH STATION WICST INPUT/OUTPUT DATA - 1996

Corn rotations

Crop-96 Rotation Treatment	Cont. Corn CS1 1	Corn CS2 2	Corn CS3 6	Corn CS4 10	Corn CS5 12
Plot #'s	109, 204, 306, 412	108, 206, 310, 408	102, 212, 313, 407	107, 205, 309, 404	103, 213, 314, 410
Primary Tillage	Chisel Plow 11/8/95	No-till	Chisel Plow 11/8/95 Sweeps	Chisel Plow 4/24/96 Sweeps	Chisel Plow 4/24/96 Sweeps
Secondary Tillage	Field Cult. 4/8/96	None	Field Cult. 5/2/96 5/12/96	Field Cult. 5/2/96	Field Cult. 5/2/96 5/12/96
Planting Date	5/3/96	5/3/96	5/13/96	5/3/96	5/13/96
Variety	Pioneer 3563	Pioneer 3563	Dekalb 493	Pioneer 3563	Dekalb 493
Rate	31,500	31,500	34,000	31,500	34,000
Fertilizer Starter	100 lb 6-24-24	100 lb 6-24-24	None	100 lb 6-24-24	None
Nitrogen	93lb N/a 82-0-0 6/29/96	120 lb N/a 82-0-0 7/8/96	None	None	None
Manure	None	None	None	20 Ton/A 11/6/96	15 Ton/A 11/6/96
Pesticides	5/20/96 Dual 2 pt/a 6/5/96 Buctril 1 pt/a 5/3/96 Force 3G 4 lb/a	5/4/96 Roundup 1 qt/a + ammonium sulfate 5/20/96 Dual 2 pt/a 6/5/96 Buctril 1 pt/a Accent .35 oz/a	None	6/5/96 Buctril 1 pt/A	None
Rotary Hoe	None	None	2X 5/21/96 1X 5/29/96	None	2X 5/21/96 1X 5/29/96
Cultivation (No-till)	7/3/96	7/3/96	6/29/96 7/3/96 7/8/96 7/16/96 (rep 1,2,3)	7/3/96	6/25/96 6/29/96 7/3/96 7/8/96
Harvest	11/5/96	11/5/96	11/5/96	11/5/96	11/5/96
Yield	131.5 bu/a	140.0 bu/a	83.5 bu/a	151.2 bu/a	153.6 bu/a
Fall Practices	Chisel Plow 11/6/96	None	Chisel Plow 11/6/96	None	None

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Soybean and Wheat Rotations

Crop-96 Rotation Treatment	NR Soybean CS2 3	WR Soybean/Wheat CS3 5	Wheat/Red Clover CS3 4
Plot #'s	101, 214, 303, 401	106, 202, 307, 411	104, 201, 301, 402
Primary Tillage	No-till	Chisel Plow 11/8/95	None
Secondary Tillage	None	Field Cult. 5/2/96 5/12/96	None
Planting Date	5/14/96	5/14/96	9/29/95 W. Wheat 2/29/96 Red Clov. 4/22/96 S. Wheat
Rate/Variety	235,000 s/a Asgrow 1900	175,000 s/a SB Asgrow 1900	150 lb/a Glacier 100 lb/a S. Wheat 20 lb/A Red Clov.
Fertilizer	None	None	None
Pesticides	5/7/96 Roundup 1qt/a + am sulf + NIS 6/28/96 Pursuit 3 oz/a Pinnacle .125 oz/a 7/1/96 Poast Plus 1 pt/a	None	None
Rotary Hoe	None	2X 5/21/96 1X 5/29/96	None
Cultivation	None	6/25/96 6/29/96 7/3/96 7/16/96	None
Harvest	10/4/96	10/4/96	8/14/96
Yield	53.7 bu/a	60.2 bu/a	45.4 bu/a wheat 1.55 T/a straw
Fall Practices	None	Disk 10/6/96 Double disk drill 10/6/96 Glacier W. Wheat 150 lb/a	None

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Forage rotations

Crop-96	D. Seeded Alfalfa	Estab. Alfalfa I	Estab. Alfalfa II	Oats/ Alfalfa	Estab. Alfalfa I	Pasture
Rotation Treatment	CS4 9	CS4 8	CS4 7	CS5 11	CS5 13	CS6 14
Plot #'s	105, 203, 308, 406	113, 210, 311, 414	111, 209, 305, 409	110, 208, 304, 413	114, 211, 312, 403	112, 207 302, 405
Primary Tillage	Chisel Plow 11/8/95	—	—	Chisel Plow 11/8/95	—	—
Secondary Tillage	Field Cult. 4/8/96	—	—	Field Cult. 4/8/96	—	—
Planting Date	4/8/96	4/24/95	4/18/94	4/8/96	4/24/95	4/26/96
Variety	ICI 631	ICI 631	Magnum III	Bay-oats ICI 631-alf. Perennial ryegrass	ICI 631	Medium RC
Planting Rate	15 lb/A	—	—	12 lb/A alfalfa 64 lb/A oats 2 lb/a ryegrass	—	6 lb/a
Fertilizer/ Manure	11/7/95 20 ton/A	7/10/96 0-0-60 rep 1,4 60 lb/a	7/10/96 0-0-60 rep 3 60 lb/a Rep 1,4 120 lb/a	11/7/95 15 ton/A		6/26/96 109 lb/a 46-0-0 grazing
Pesticides	6/5/96 Pursuit 3 oz/a + NIS, am. sulf.	None	None	None	None	None
Harvest	7/10/96 8/14/96	6/1/96 7/2/96 8/2/96 10/28/96	6/1/96 7/2/96 8/2/96 10/28/96	6/28/96 oatlage 8/14/96	6/1/96 7/2/96 8/2/96 10/28/96	Rotational grazing
Yield	1.57 tDM/a	4.16 tDM/a	3.77 tDM/a	2.68 tSDM/a	4.42 tDM/a	574 lb gain/a
Fall Practices	None	None	10/6/96 Roundup 1 qt/a + NIS 11/6/96 20 T/a manure No chisel Plow	None	11/6/96 15 T/a manure	None