

APPENDIX VIII.A. ARLINGTON AGRICULTURAL RESEARCH STATION WICST INPUT/OUTPUT DATA - 1994

Corn Treatments

Crop-94 Prev Crop Rotation Treatment	Cont. Corn Corn R1 1	Corn Soybean R2 2	Corn Wheat/RC R3 4	Corn Alfalfa II R4 8	Corn Alfalfa I R5 13
Primary Tillage	Chisel Plow 11/9/93	No-till	Chisel Plow Sweeps 11/9/93	Chisel Plow Sweeps 11/9/93	Chisel Plow Sweeps 11/9/93
Secondary Tillage	Disk 4/25/94 Soil Finisher 4/26/94	None	Disk 4/25/94 Soil Finisher 5/5/94	Disk 4/25/94 Soil Finisher 4/26/94	Disk 4/25/94 Soil Finisher 5/5/94
Planted Variety Rate	4/26/94 Pioneer 3563 31,500	4/26/94 Pioneer 3563 31,500	5/5/94 Pioneer 3751 34,000	4/26/94 Pioneer 3563 31,500	5/5/94 Pioneer 3751 34,000
Fertilizer Starter	100 lb 6-24-24	100 lb 6-24-24	None	100 lb 6-24-24	None
Nitrogen	118 lb N/a ^{1/} as 82-0-0 6/23/94	120 lb N/a as 82-0-0 6/23/94	None	None	None
Manure	None	None	None	20 Ton/a 11/7/93	15 Ton/a 11/7/93
Pesticides	pre 5/5/94 Dual 2 pt/a postemerge Buctril 1 pt/a 6/1/94 post spot trt Stinger .5 pt/a 6/8/94 Counter 15G 9 lb/a with planter	pre 5/5/94 Dual 1.3 pt/a postemerge Buctril 1 pt/a 6/1/94 post spot trt Stinger .5 pt/a 6/8/94	None	Buctril 1 pt/a 6/1/94 postemerge	None
Rotary Hoe	None	None	#1 5/14/94 #2 5/19/94	None	#1 5/14/94 #2 5/19/94
Cultivation S-tine	6/11/94	7/5/94	5/27/94 6/4/94 6/11/94	6/11/94	5/27/94 6/4/94 6/11/94
No-till	6/18/94	6/18/94	6/18/94	6/18/94	6/18/94
Harvest	10/21/94	10/21/94	10/21/94	10/21/94	10/21/94
Yield	178 bu/a	190 bu/a	188 bu/a	197 bu/a	199 bu/a
Fall Practices	Chisel Plow 11/7/94	None	Chisel Plow 11/7/94	20 T/a manure 11/3/94 Chisel Plow 11/7/94	15 T/a manure 11/3/94 Chisel Plow 11/7/94
Crop-95	Corn	NR Soybean	WR Soybean	D.S. Alfalfa	Oats/Alfalfa

^{1/} average of four reps - ranged from 80 to 150 lb/a.

APPENDIX VIII.B. ARLINGTON AGRICULTURAL RESEARCH STATION WICST INPUT/OUTPUT DATA - 1994
Soybean and Wheat Treatments

Crop-94	NR Soybean ^{1/}	WR Soybean/ Wheat	Wheat/ Red Clover
Prev. Crop	Corn	Corn	Soybean/Wheat
Rotation	R2	R3	R3
Treatment	3	6	5
Primary Tillage	No-till	Chisel Plow 11/9/93	None
Secondary Tillage	Chisel 6/15/94 Chisel 6/15/94 Mulcher 6/15/94	Disk 5/5/94	Disk 7/28/94 Soil Finish 2X 7/29/94
Planting Date	5/3/94 6/15/94	5/5/94	10/13/93 Wheat 4/2/94 Rd Clov 7/29/95 Hairy Vetch
Rate/Variety	235,000 s/a Kalt. 241	175,000 s/a NK 1990	180 lb/a Merrimac Wh
Rate/Variety	235,000 s/a Kalt. 142		20 lb/a Arlington RC
Rate/Variety			30 lb/a Hairy Vetch
Fertilizer	None	None	None
Pesticides	postemerge 4 oz/a Pursuit + surf. 5/31/94 .12 oz/a Pinnacle + surf. 2 qt/A 28% 6/2/94 1 pt/a Reflex + surf. 7/12/94	None	None
Rotary Hoe	None	#1 5/21/94 #2 6/5/94	None
Cultivation	None		None
S-tine		5/27,6/4, 6/22/94	
No-till		6/18/94	
Harvest	10/13/94	10/13/94	7/19/94
Yield	43 bu/a	44 bu/a	61 bu/a wheat 1.43 T/a straw
Fall Practices	None	Disk 10/14/94 No-till drill Glacier w.wheat 180 lb/a 10/14/94	Chisel plow (sweeps) 11/8/94
Crop-95	Corn	Wheat/Red Clover	Corn

^{1/} Soybeans tilled and replanted due to severe herbicide damage to soybean plants.

APPENDIX VIII.C. ARLINGTON AGRICULTURAL RESEARCH STATION WICST INPUT/OUTPUT DATA - 1994
Forage Treatments

Crop-94	D. Seeded Alfalfa	Estab. Alfalfa I	Estab. Alfalfa II	Oats/ Alfalfa	Estab. Alfalfa I	Pasture
Prev. Crop	Corn	D.S. Alf.	Alfalfa I	Corn	Oats/Alf.	Pasture
Rotation	R4	R4	R4	R5	R5	R6
Treatment	7	10	9	12	11	14
Primary Tillage	Chisel Plow 11/9/93			Chisel Plow 11/9/93		
Secondary Tillage	Disk 4/18/94 Soil Finisher 4/18/94			Disk 4/18/94 Soil Finisher 4/18/94		
Planting Date	4/18/94	5/1/93	4/7/92 4/28/93 ^{1/}	4/18/94	5/1/93	4/23/90 C,T,B 4/30/92 O,B,T 7/31/92 O 4/9/93 C ^{2/}
Variety	Magnum III	Magnum III	Magnum III	Prairie-oats Magnum III-alf.	Magnum III	Timothy-Toro Brome-Badger Arl Rd Clov
Planting Rate	15 lb/a			64 lb/a oats 15 lb/a alfalfa		6 lb/a O gr 12 lb/a Br 6 lb/a Tim 4.5 lb/a O gr 12 lb/a RC
Fertilizer Manure	20 ton/a 11/7/92	None	None	15 ton/a 11/7/92	None	grazing
Pesticides	Eptam 2 qt/a ppi 4/18/94	None	Roundup 2 qt/a Sufactant 1 pt/a 10/10/94	None	None	None
Harvest	6/25/94 haylage 7/26/94 haylage 8/30/94 haylage	6/1/94 haylage 6/26/94 haylage 8/2/94 haylage 8/30/94 haylage	6/1/94 haylage 6/26/94 haylage 8/2/94 haylage 8/30/94	6/17/94 oatlage 7/26/94 haylage	6/1/94 haylage 6/25/94 haylage 8/2/94 haylage 9/30/94 haylage	grazing 5/2 - 8/31/94 5/31/94 hylg 10/21/94 hylg
Yield	3.21 tDM/a	4.56 tDM/a	3.68 tDM/a	3.37 tDM/a	5.30 tDM/a	2.15 tDM/a 549 lb gain/a
Fall Practices	None	None	20 T/a manure 11/3/94	None	Roundup 2 qt/a Surf. 1 pt/a 10/10/94 15 T/a manure 11/3/94	None
Crop-95	Alfalfa I	Alfalfa II	Corn	Alfalfa I	Corn	Pasture

^{1/} No-till drill

T9 105 - whole plot 5 lb/a perennial rye, 203, 308, 406 - whole plots 5 lb/a perennial rye + 8 lb/a Magnum alfalfa

^{2/} Seeding with hand operated cyclone seeder.