

Appendix I-A. 1999 WICST INPUT/OUTPUT DATA - ARLINGTON RESEARCH STATION

Corn rotations					
CROP-99 Rotation Treatment #	CORN CS1 1	CORN CS2 3	CORN CS3 6	CORN CS4 9	CORN CS5 12
Plot #'s	109, 204, 306, 412	101, 214, 303, 401	102, 212, 313, 407	105, 203, 308, 406	103, 213, 314, 410
Primary Tillage	Chisel plow 10/29/98	No-till	Chisel plow w/sweeps 11/17/98	Chisel plow 11/17/98	Chisel plow 11/17/98
Secondary Tillage	Field digger 4/27/99	None	Field digger 5/13/99	Field digger 4/24/99	Field digger 4/27/99, 5/13/99
Planting Date	4/30/99	04/30/99	5/13/99	4/30/99	5/13/99
Variety	Gold.Harv.2441	Gold.Harv.2441	Dekalb 471	Gold.Harv.2441	Dekalb 471
Rate	32,000 seeds/a	32,000 seeds/a	34,500 seeds/a	32,000 seeds/a	34,500 seeds/a
Starter Fertilizer	100 lb product 6-24-24	None	None	100 lb product 6-24-24	None
Nitrogen Fertilizer	80 lb N/a 82-0-0 4/27/99 preplant	80 lb N/a ¹ 82-0-0 04/27/99 preplt	None	None	None
Manure	None	None	None	20 ton/a 10/28/98	15 ton/a 10/28/98
Pesticides	4/30/99 Counter (5 lb/a) <u>Pre-emergence</u> 5/3/99 Dual II (2 pt/a) <u>Post-emergence:</u> 6/3 Accent (2/3 oz/a) 6/5 Buctril (1 pt/a)	<u>Pre-emergence</u> 5/3/99 Dual II (2 pt/a) <u>Post-emergence:</u> 5/13 Roundup Ultra (1 pt/a) 06/05 Buctl (1pt/a) 06/10-Stinger (plots #303 & 401)	None	<u>Post-emergence:</u> 06/03-Buctril (1 pt/a) 06/03-Accent (0.67 oz/a)	None
Rotary Hoe	5/25/99	None	05/25/99	None	5/25/99
Cultivation	6/8/99, 6/19/99	None	6/8/99, 6/19/99	6/9/99, 6/19/99	6/8/99, 6/19/99
Harvest	10/28/99	10/28/99	10/28/99	10/28/99	10/28/99
Yield	170.4 bu/a	162.9 bu/a	155.6 bu/a	189.7 bu/a	181.9 bu/a
Fall Practices	Chop stalks 11/10/99 Chisel plow 11/16/99	None	Chisel plow 11/16/99	Chop stalks 11/10/99 Manure 20 t/a 11/15/99 Chisel plow 11/16/99	Chop stalks 11/10/99 Manure 15 t/a 11/15/99 Chisel plow 11/16/99
Crop 2000	Corn	Soybean	Soybean	D.S. Alfalfa	Oats/Alfalfa

¹ CS2 corn did not need all 80 lb N/a but that was the lowest setting on the fertilizer spreader

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Soybean and Wheat Rotations			
CROP-99 Rotation Treatment #	NR Soybean CS2 2	WR Soybean/Wheat CS3 5	Wheat/Red Clover CS3 4
Plot #'s	108, 206, 310, 408	106, 202, 307, 411	104, 201, 301, 402
Primary Tillage	No-till	Chisel plow 10/29/98	Soil digger 10/11/98 Double disk drill 10/12/98
Secondary Tillage	None	Field digger 4/30/99, 5/12/99	None
Planting Date	5/13/99	SB: 5/12/99 WW: 10/08/99	Red clover: 3/22/99 WW: 10/12/98
Variety Rate	Asgrow 2301 250,000 seeds/a	Asgrow 2247 190,000 seeds/a Glacier 3 bu/a	Arlington red clover: 12 lb/a Glacier wheat: 130 lb/a
Fertilizer	None	None	None
Pesticides	<u>Pre-plant</u> 05/3/99 Roundup-Ultra (1 pt/a) <u>Post-emergence</u> Roundup-Ultra (date?) (2 pt/a)	None	None
Rotary Hoe	None	5/25/99	None
Cultivation	None	6/19/99, 6/28/99, 7/6/99	None
Harvest	10/7/99	10/7/99	Grain: 7/14/99 Straw: 7/20/99
Yield	59.2 bu/a	31.0 bu/a ¹	Grain: 56.9 bu/a Straw: 0.62 t DM/a
Fall Practices	None	Field digger 10/7/99 Plant wheat 10/8/99	Chisel plow w/sweeps 11/19/99
Crop 2000	Corn	Wheat / Red Clover	Corn

¹ Low yields related to very heavy weed pressure.

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Forage rotations						
CROP-99 Rotation Treatment #	D.S. Alfalfa CS4 8	Estab. Alfalfa I CS4 7	Estab. Alfalfa II CS4 10	Oats/Alfalfa CS5 11	Estab. Alfalfa I CS5 13	Pasture CS6 14
Plot #'s	113, 210, 311, 414	111, 209, 305, 409	107, 205, 309, 404	110, 208, 304, 413	114, 211, 312, 403	112, 207, 302, 405
Primary Tillage	Chisel plow 10/29/98	None	None	Chisel plow 10/29/98	None	None
Secondary Tillage	3/24/99 Field digger	None	None	3/24/99 Field digger	None	None
Planting Date Variety	3/24/99 Wintergreen	4/15/98 Wintergreen	4/17/97 Innovator	3/24/99 Bay Oats Trapper peas Wintergreen 2.5 bu/a, 50 lb/a 12 lb/a	4/15/98 Wintergreen alf, oats, trapper peas Alf -11 lb/a Oats - 50 lb/a Peas - 50 lb/a	None
Rate	12 lb/a	15 lb/a	15 lb/a			
Fertilizer	None	None	None	None	None	None
Manure	20 ton/a 10/28/98	None	None	15 ton/a 10/28/98	None	Grazing
Pesticides	<u>Post-emerge:</u> 5/15/99, 5/21/99 Pursuit (1.08 oz/a) 7/13/99 Dimetholate (1 pt/a)	6/26/99 Pounce (4 oz/a) 7/13/99 Dimetholate (1 pt/a)	6/25/99 Pounce (4 oz/a) 7/13/99 Dimeth (1 pt/a) 10/26/99 Roundup (1 pt/a)	None	None	None
Harvest	7/2/99 8/5/99 9/3/99	6/5/99 7/2/99 8/5/99 10/22/99	6/5/99 7/2/99 8/5/99 11/1/99	<u>Oatlage:</u> 06/15/99 <u>Haylage:</u> 8/19/99	6/5/99 7/16/99 9/22/99	Rotational Grazing
Yield	2.27 t DM/a	4.56 t DM/a	4.06 t DM/a	Oatlage: 2.61 Haylage: 2.09 t DM/a	5.48 tDM/a	1.8 lb/hd/dy 2.21 t DM/a
Fall Practices	None	None	Manure 20 t/a 11/15/99 Chisel plow 11/17/99	None	Manure 15 t/a 11/15/99 Chisel plow w/sweeps 11/19/99	None
Crop 2000	Alf I	Alf II	Corn	Alf I	Corn	Pasture

Appendix I-A. 1999 WICST INPUT/OUTPUT DATA - ARLINGTON RESEARCH STATION**Satellite plots – Chemlite of Cropping System 3**

CROP-99	Corn	WR Soybean/Wheat	Wheat/Red Clover
Rotation	CS3	CS3	CS3
Treatment #	6	5	4
Primary Tillage	Chisel plow w/sweeps 11/17/98	Chisel plow 10/28/98	Soil digger 10/11/98 Double disk drill 10/12/98
Secondary Tillage	5/13/99 Field digger	4/30/99, 5/12/99 Field digger	None
Planting Date	5/13/99	SB: 05/12/99 WW: 10/08/99	Red clover: 3/22/99 WW: 10/12/98
Variety	Dekalb 471	Asgrow 2247	Arlington red clover: 12 lb/a
Rate	34,500 seeds/a	190,000 seeds/a Glacier 3 bu/a	Glacier wheat: 130 lb/a
Fertilizer	None	None	None
Pesticides	None	None	None
Rotary Hoe	05/25/99	5/25/99	None
Cultivation	6/8/99, 6/19/99	6/19/99, 6/28/99, 7/6/99	None
Harvest	10/28/99	10/7/99	7/14/99
Yield	160.0 bu/a	49.8 bu/a	Grain: 59.8 bu/a straw: 0.66 t DM/a
Fall Practices	Chisel plow 11/16/99	Field digger 10/7/99 Plant wheat 10/8/99	Chisel plow w/sweeps 11/19/99
Crop 2000	Soybean	Wheat / Red Clover	Corn