

Appendix I-A. 2001 WICST INPUT/OUTPUT DATA - ARLINGTON RESEARCH STATION

Corn rotations

CROP-01 Rotation Treatment #	CORN CS1 1	CORN CS2 3	CORN CS3 5	CORN CS4 7	CORN CS5 11
Plot #'s	109, 204, 306, 412	101, 214, 303, 401	106, 202, 307, 411	111, 209, 305, 409	110, 208, 304, 413
Primary Tillage	Chisel plow 11/10/00	No-till	Chisel plow w/sweeps 11/11/00	Chisel plow w/sweeps 11/11/00	Chisel plow w/sweeps 11/12/00
Secondary Tillage	Field Digger 4/24/01	None	Field Digger 4/24/01	Field Digger 4/24/01	Field Digger 4/24/01
Planting Date	5/1/01	5/1/01	5/1/01	5/1/01	5/1/01
Variety	Cargill 4111	Cargill 4111	Cargill 4111	Cargill 4111	Cargill 4111
Rate	32,000 seeds/a	32,000 seeds/a	32,000 seeds/a	32,000 seeds/a	32,000 seeds/a
Starter Fertilizer	100 lb product 5-10-30	100 lb product 5-10-30	None	100 lb product 5-10-30	None
Nitrogen Fertilizer	100 lb N/a 82-0-0 preplant	120 lb N/a 82-0-0 preplant	None	None	None
Manure	None	None	None	20 ton/a 11/10/00	15 ton/a 11/10/00
Pesticides	<u>Pre-emrg. 5/1-5/8</u> Counter (5 lb/a) Dual II (2 pt/a) <u>Post-emrg. 6/4/01</u> Buctril (1 pt/a) <u>Post-season¹:</u> RdupU (1.5 qt/a) 2,4-D (1 pt/a) w/ AMS (2.5lb/a)	<u>Pre-emrg. 5/8/01</u> Dual II (0.5 pt/a) Roundup Ultra (0.5 pt/a) w/AMS 2.5lb/a <u>Post-emrg. 6/4/01</u> Buctril (1pt/a)	None	<u>Pre-emrg. 5/8/01</u> Dual II (2 pt/a) <u>Post-season:¹</u> RdupU (1.5 qt/a), 2,4-D (1 pt/a) w/AMS (2.5lb/a)	None
Rotary Hoe	5/16/01	None	5/16/01	5/16/01	5/16/01
Cultivation	5/22/01, 6/9/01	None	5/22/01, 6/9/01	5/22/01, 6/9/01	5/22/01, 6/9/01
Harvest	10/15/01	10/15/01	10/15/01	10/15/01	10/15/01
Yield	193.6 bu/a	207.7 bu/a	155.5 bu/a	227.8 bu/a	181.2 bu/a
Fall Practices	Chop stalks 11/1/01 Chisel plow 11/13/01	None	Chop stalks 11/1/01 Chisel plow 11/13/01	Chop stalks 11/1/01 Manure 20 t/a 11/12/01 Chisel plow 11/13/01	Chop stalks 11/1/01 Manure 15 t/a 11/12/01 Chisel plow 11/13/01
Crop 2002	Corn	Soybean	Soybean	D.S. Alfalfa	Oats/Alfalfa

¹ outside 6 rows sprayed on 11/6/01 to control quackgrass invasion and dandelions

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Soybean and Wheat Rotations			
CROP-01	NR Soybean	WR Soybean/Wheat	Wheat/Red Clover
Rotation	CS2	CS3	CS3
Treatment #	2	4	6
Plot #'s	108, 206, 310, 408	104, 201, 301, 402	102, 212, 313, 407
Primary Tillage	No-till	Chisel plow 10/11/00	None
Secondary Tillage	None	Field digger 2x 5/8/01	None
Planting Date	5/10/01	SB: 5/10/01 WW: 10/3/01	Red clover: 4/13/01 WW: 10/11/00
Variety	Dairyland 241	Pioneer 91B53 190,000 sd/a	Arlington red clover: 12 lb/a
Rate	250,000 seeds/a	Kaskaskia 3 bu/a (180 lb/a)	Kaskaskia wheat: 130 lb/a
Fertilizer	None	None	None
Pesticides	<u>Pre-plant 5/8/01</u> Roundup-Ultra (1 qt/a) <u>Post-emrg. 6/26/01</u> Roundup-Ultra (1 pt/a)	None	None
Rotary Hoe	None	5/16/01	None
Cultivation	None	5/22/01, 6/9/01	None
Harvest	10/30/01	10/2/01	Grain: 7/16/01 Straw: 7/24/01
Yield	51.6 bu/a	35.4 bu/a	Grain: 54.8 bu/a Straw: 0.71 ton/a
Fall Practices	None	Disc 1x 10/3/01 Field digger 2x 10/3/01 Plant wheat 10/3/01	Stalk chopper for rc biomass Chisel plow w/sweeps 11/15/01
Crop 2002	Corn	Wheat / Red Clover	Corn

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Forage rotations						
CROP-01	D.S. Alfalfa	Estab.	Estab.	Oats/Alfalfa	Estab.	Pasture
Rotation	CS4	Alfalfa I	Alfalfa II	CS5	Alfalfa I	CS6
Treatment #	10	CS4	CS4	13	CS5	14
		9	8		12	
Plot #'s	107, 205, 309, 404	105, 203, 308, 406	113, 210, 311, 414	114, 211, 312, 403	103, 213, 314, 410	112, 207, 302, 405
Primary Tillage	Chisel plow 11/11/00	None	None	Chisel plow 11/11/00	None	None
Secondary Tillage	Soil Finisher 2x, 4/16/01	None	None	Soil Finisher 2x, 4/16/01	None	None
Planting Date	4/17/01	3/30/00	3/24/99	4/16/01	3/30/00	4/13/01
Variety	Magnum V	Dekalb 124	Wintergreen	Bay Oats Trapper peas Magnum V	Dekalb 124, oats, trapper peas	Arl. Red clover
Rate	12 lb/a	12 lb/a	12 lb/a	50 lb/a, 50 lb/a 12 lb/a	Alf -12 lb/a Oats – 80 lb/a Peas – 50 lb/a	12 lb/a
Fertilizer	None	None	None	None	None	None
Manure	20 ton/a 11/10/00	None	None	15 ton/a 11/10/00	None	~ 5 ton/a from 4 -516 lb heifers
Pesticides	5/19/01 Pursuit (1.44 oz/a) w/AMS 2.5 lb/a 6/21/01 Pounce 4 oz/a 7/11/01 Warrior 2 oz/a	7/13/01 Pounce (4 oz/a)	7/13/01 Pounce (4 oz/a) 11/6/01 Roundup 1.5 qt/a w/AMS 2.5lb/a	None	None	None
Harvest	7/06/01 8/14/01 10/16/01	6/08/01 7/09/01 8/14/01 10/16/01	6/08/01 7/09/01 8/14/01 10/16/01	<u>Oatlage:</u> 6/30/01 <u>Haylage:</u> 8/14/01 10/16/01	6/08/01 7/09/01 8/14/01 10/16/01	Rotational Grazing/ clipping, 153 d of grazing
Yield	3.21 t DM/a	5.89 t DM/a	5.53 t DM/a	Oatlage: 2.35 Haylage: 2.18 t DM/a	5.29 tDM/a	1.63 lb/hd/dy 1.28 t DM/a ¹
Fall Practices	None	None	Manure 20 t/a 11/12/01 Chisel plow w/sweeps 11/13/01	None	Manure 15 t/a 11/12/01 Chisel plow w/sweeps 11/15/01	None
Crop 2002	Alf I	Alf II	Corn	Alf I	Corn	Pasture

¹ hay harvested in May from plot 207=1.52 ton DM/a and hay harvested in June from 405=1.04 ton DM/a

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Satellite plots – Chemlite of Cropping System 3

CROP-01	Corn	WR Soybean/Wheat	Wheat/Red Clover
Rotation	CS3	CS3	CS3
Treatment #	5	4	6
Primary Tillage	Chisel plow w/sweeps 11/11/00	Chisel plow 10/11/00	None
Secondary Tillage	Field digger 4/24/01	Field digger 2x 5/8/01	None
Planting Date	5/1/01	SB: 5/10/01 WW: 10/3/01	Red clover: 4/13/01 WW: 10/11/00
Variety Rate	Cargill 4111 32,000 seeds/a	Pioneer 91B53 190,000 sd/a Kaskaskia 3 bu/a (180 lb/a)	Arlington red clover: 12 lb/a Kaskaskia wheat: 130 lb/a
Fertilizer	None	None	None
Pesticides	6/4/01 Northstar 0.50 oz/a 6/4/01 Accent 0.33 oz/a	None	None
Rotary Hoe	5/16/01	5/16/01	None
Cultivation	5/22/01, 6/9/01	5/22/01, 6/9/01	None
Harvest	10/15/01	10/2/01	Grain: 7/16/01 Straw: 7/24/01
Yield	190.8 bu/a	39.7 bu/a	Grain: 56.3 bu/a Straw: 0.66 t DM/a
Fall Practices	Chisel plow 11/15/01	Disc 1x 10/3/01 Field digger 2x 10/3/01 Plant wheat 10/3/01	Stalk chopper for rc biomass Chisel plow w/sweeps 11/15/01
Crop 2002	Soybean	Wheat / Red Clover	Corn