Appendix I-A. 2003 WICST Input/Output Data - Arlington Research Station

Corn rotations

CROP-03	**CORN**	**CORN**	**CORN**	**CORN**	**CORN**
Rotation	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**
Treatment #	**1**	**3**	**4**	**9**	**13**
Plot #'s	109, 204, 306, 412	101, 214, 303, 401	104, 201, 301, 402	105, 203, 308, 406	114, 211, 312, 403
Primary Tillage	Chisel plow w/twisted shank 11/21/02	None (No-till)	Chisel plow w/sweeps 11/21/02	Chisel plow w/twisted shank 11/21/03	Chisel plow w/sweeps 11/21/02
Secondary Tillage	Field Digger 4/23/03, 4/29/03	None	Field Digger 4/23/03, 5/23/03	Field Digger 4/23/03, 4/29/03	Field Digger 4/23/03, 5/22/03
Planting Date	4/29/03	4/29/03	5/23/03	4/29/03	5/23/03
Variety	Pion. 35R58 Bt	Pion. 35R58 Bt	NC+ 100A2	Pion. 35R58 Bt	NC+ 100A2
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 5-14-42	100 lb product 5-14-42	None	100 lb product 5-14-42	None
Fertilizer	80 and 120 lb N/a[1] 82-0-0 sidedressed 6/19/03	80 lb N/a 82-0-0 sidedressed 6/19/03 120 lb/a 0-0-60 (101, 401)	None	None	None
Manure	None	None	None	20 ton/a 11/13/02	15 ton/a 11/13/02
Pesticides	Counter 5 lb/a 4-29-03 Pre-emrg: 5/3/03 Dual II Magnum 1.3 pt/a Post-emrg: 6/9/03 Buctril 1 pt/a	Pre-emrg: 5/2/03 Roundup Weathermax 13 oz/a, Dual II Magnum 1.5 pt/a AMS 3 lb/a Post-emrg: 6/9/03 Buctril 1 pt/a, 6/23/03 Resource 6 oz/a w/ CropOil	None	Pre-emrg: none Post-emrg: 6/9/03 Buctril 1 pt/a	None
Rotary Hoe	None	None	5/31/03	None	5/31/03
Cultivation	6/17/03	None	6/17/03, 6/23/03, 7/1/03	6/17/03, 6/23/03	6/17/03, 6/23/03
Harvest	10/17/03	10/17/03	10/17/03	10/17/03	10/17/03
Yield	175.0 bu/a	176.5 bu/a	110.0 bu/a	190.6 bu/a	149.7 bu/a
Fall Practices	Chop stalks 10/30/03 Chisel plow w/twisted shank 11/11/03	Chop stalks 10/30/03 No fall tillage	Chop stalks 10/30/03 Chisel plow w/twisted shank 11/11/03	Chop stalks 10/30/03 Manure 20 t/a 11/6/03 Chisel plow w/twisted shank 11/11/03	Chop stalks 10/30/03 Manure 15 t/a 11/6/03 Chisel plow w/twisted shank 11/11/03
Crop 2004	**Corn**	**Soybean**	**Soybean**	**D.S. Alfalfa**	**Oats/Alfalfa**

1 Plots 204 and 412 received 80 lb N/a and plots 109 and 306 received 120 lb N/a

Appendix I-A (cont'd). 2003 WICST Input/Output Data - Arlington Research Station

Soybean and Wheat Rotations

CROP-03	**NR Soybean**	**WR Soybean/Wheat**	**Wheat/Red Clover**
Rotation	**CS2**	**CS3**	**CS3**
Treatment #	**2**	**6**	**5**
Plot #'s	108, 206, 310, 408	102, 212, 313, 407	106, 202, 307, 411
Primary Tillage	No-till	Chisel plow w/twisted shank 11/20/02	Field digger 10/11/02
Secondary Tillage	None	Field digger 4/23/03, 5/22/03	None
Planting Date	5/22/03	SB: 5/23/03 WW: 10/8/03	Red clover: 4/2/03 WW: 10/11/02
Variety **Rate**	Asgrow 2001 225,000 seeds/a	IA2053 170,000 seed/a Pioneer 25R37 125 lb/a	Arlington red clover: 12 lb/a Kaskaskia wheat: 180 lb/a
Fertilizer	None	None	None
Pesticides	5/27/03 Roundup Weathermax 11 oz/a 6/23/03 Roundup WM 16 oz/a (Both w/3 lb/a AMS) 8/4/03 Warrior 2.5 oz/a	None	None
Rotary Hoe	None	5/31/03	None
Cultivation	None	6/17/03, 6/23/03, 7/1/03	None
Harvest	10/11/03	10/7/03	Grain: 7/29/03 Straw: 7/31/03
Yield	35.6 bu/a	32.5 bu/a	Grain: 53.6 bu/a Straw: 0.40 ton/a
Fall Practices	None	Field digger 10/8/03 Plant wheat w/roller behind drill 10/8/03	Chisel plow w/sweeps 11/12/03
Crop 2004	**Corn**	**Wheat / Red Clover**	**Corn**

Appendix I-A (cont'd). 2003 WICST Input/Output Data - Arlington Research Station

Forage rotations

CROP-03	**D.S. Alfalfa**	**Estab.**	**Estab.**	**Oats/Alfalfa**	**Estab.**	**Pasture**
Rotation	**CS4**	**Alfalfa I**	**Alfalfa II**	**CS5**	**Alfalfa I**	**CS6**
Treatment #	**8**	**CS4**	**CS4**	**12**	**CS5**	**14**
		7	**10**		**11**	
Plot #'s	113, 210, 311, 414	111, 209, 305, 409	107, 205, 309, 404	103, 213, 314, 410	110, 208, 304, 413	112, 207, 302, 405
Primary Tillage	Chisel plow 11/20/02	None	None	Chisel plow 11/21/02	None	None
Secondary Tillage	Field digger 4/4/03, 4/13/03	None	None	Field digger 4/4/03, 4/13/03	None	None
Planting Date	4/14/03	4/9/02	4/17/01	4/14/03	4/9/02	4/2/03
Variety	Magnum V	Magnum V	Magnum V	Bay Oats Trapper peas Magnum V	Bay Oats Trapper peas Magnum V	Arlington 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 – 50 lb/a Peas – 50 lb/a	8 lb/a
Fertilizer	None	170-340 lb/a 0-0-60 (all plots)	340-400 lb/a 0-0-60 (all but plot 205)	None	None	None
Manure	20 ton/a 11/13/02	None	None	15 ton/a 11/13/02	None	~ 5.5 ton/a from 5-500 lb heifers
Pesticides	5/29/03 Raptor 4 oz/a w/NIS, AMS 6/18/03 Pounce 3.2ec 4 oz/a 7/28/03 Pounce 3.2ec 6 oz/a	None	10/22/03 RoundupWeather max 30 oz/a w/AMS 3 lb/a	None	None	Stinger ~ 1.25 gal sln. spot sprayed on 2.8-acre area (used 9 ml of stinger)
Harvest	7/14/03, 8/19/03, 10/21/03	5/31/03, 7/8/03, 8/6/03, 10/21/03	5/31/03, 7/8/03, 8/6/03 4th cut not taken	Oatlage: 6/27/03 2nd cut clipped & discarded	6/4/03, 7/14/03, 9/3/03, 10/21/03	Rotational Grazing/ clipping, 139d of grazing
Yield	2.91 T DM/a	4.83 T DM/a	3.37 T DM/a	2.30 T DM/a	5.94 T DM/a	
Fall Practices	None	None	Manure 20 t/a 11/6/03 Chisel plow w/twisted shank 11/11/03	None	Manure 15 t/a 11/6/03 Chisel plow w/sweeps 11/11/03	None (heifers supplemented with a total of 1020 lb hay in late summer)
Crop 2004	**Alf I**	**Alf II**	**Corn**	**Alf I**	**Corn**	**Pasture**

Appendix I-A. 2003 WICST Input/Output Data - Arlington Research Station

Satellite plots – Chemlite of Cropping System 3

CROP-03	**Corn**	**WR Soybean/Wheat**	**Wheat/Red Clover**
Rotation	**CS3**	**CS3**	**CS3**
Treatment #	**Sat C,D**	**Sat B, F**	**Sat A, E**
Primary Tillage	Chisel plow w/sweeps 11/20/02	Chisel plow w/twisted shank 11/21/03	Field Digger 10/11/02
Secondary Tillage	Field digger 4/23/03, 5/22/03	Field digger 4/23/03, 5/22/03	None
Planting Date	5/23/03	SB: 5/23/03 WW: 10/8/03	Red clover: 4/2/03 WW: 10/11/02
Variety **Rate**	NC+ 100A2 34,500 seeds/a	IA2053 170,000 seeds/a Pioneer 25R37 125 lb/a	Arlington red clover: 12 lb/a Kaskaskia wheat: 180 lb/a
Fertilizer	80 lb N/a 82-0-0 sidedressed	None	4/9/03 50 lb N/a 46-0-0
Pesticides	6/13/03 Accent Gold 0.33 oz/a 6/13/03 Buctril 0.75 pt/a	6/25/03 Raptor 3 oz/a with NIS, AMS	8/12/03 Select 8 oz/a for grass weeds
Rotary Hoe	None	None	None
Cultivation	6/23/03	6/23/03	None
Harvest	10/17/03	10/7/03	Grain: 7/29/03 Straw: 7/31/03
Yield	155.1 bu/a	23.5 bu/a *beans damaged by tank contaminate - puckered	Grain: 67.1 bu/a Straw: 0.40 T DM/a
Fall Practices	Chop stalks 10/30/03 Chisel plow -twisted shank 11/11/03	Field digger 10/8/03 Plant wheat w/roller 10/8/03	9/4/03 clipped for weed control Chisel plow w/sweeps 11/12/03
Crop 2004	**Soybean**	**Wheat / Red Clover**	**Corn**