

Appendix II-A. 1998 WICST INPUT/OUTPUT DATA – ARLINGTON RESEARCH STATION

Corn rotations					
CROP-98 Rotation Treatment #	Continuous CORN CS1 1	CORN CS2 2	CORN CS3 5	CORN CS4 8	CORN CS5 11
Plot #'s	109, 204, 306, 412	108, 206, 310, 408	106, 202, 307, 411	113, 210, 311, 414	110, 208, 304, 413
Primary Tillage	Chisel Plow 11/20/97	No-till	Chisel Plow 11/20/97 Chisel Plow 05/14/98 Sweeps	Chisel Plow 04/20/98 Sweeps	Chisel Plow 04/20/98 Sweeps
Secondary Tillage	Field Cult. 04/25/98	None	Field Cult. 05/15/98	Field Cult. 04/25/98	Field Cult. 05/15/98
Planting Date	04/25/98	04/25/98	05/15/98	04/25/98	05/15/98
Variety	Gold.Harv.2441	Gold.Harv.2441	Dekalb 471	Gold.Harv.2441	Dekalb 471
Rate	32,000	32,000	34,500	32,000	34,500
Starter Fertilizer	100 Lb/a 6-24-24	100 Lb 6-24-24	None	100 Lb 6-24-24	None
Nitrogen Fertilizer	145 Lb N/a 82-0-0 06/01/98	95 Lb N/a 82-0-0 06/01/98	None	None	None
Manure	None	None	None	20 ton/a 11/06/97	15 ton/a 11/06/97
Pesticides	04/25/98 Counter Insecticide 05/06/98 Dual II (2 pt/a) 06/30/98 Buctril (1 pt/a)	<u>Pre-emerge:</u> 04/30/98 Roundup Ultra (1pt/a) <u>Post-emergence:</u> 05/06-Dual II (2pt/a) 06/30/98 Buctril (1 pt/a)	None	<u>Post-emergence:</u> 06/30/98 Buctril (1 pt/a) Accent (0.67 oz/a)	None
Cultivation	None	None	06/04/98 06/10/98	None	06/04/98 06/10/98
Harvest	10/20/98	10/20/98	06/19/98 10/20/98	None 10/20/98	06/19/98 10/20/98
Yield	196.21 bu/a	212.59 bu/a	197.80 bu/a	226.81 bu/a	205.15 bu/a
Fall Practices	10/28/98 Stalk chop 10/29/98 Chisel	None	10/28/98 Stalk chop 10/29/98 Chisel	10/27/98 Stalk chop 10/28/98 Manure 20tons/a 10/29/98 Chisel	10/27/98 Stalk chop 10/28/98 Manure 15tons/a 10/29/98 Chisel
Crop-99	Corn	Soybean	Soybean	D.S. Alfalfa	Oats/Alfalfa

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Soybean and Wheat Rotations			
CROP-98 Rotation Treatment #	NR Soybean CS2 3	WR Soybean/Wheat CS3 4	Wheat/Red Clover CS3 6
Plot #'s	101, 214, 303, 401	104, 201, 301, 402	102, 212, 313, 407
Primary Tillage	No-till	11/20/97 Chisel Plow	10/02/97 digger
Secondary Tillage	None	Field Cultivation 05/15/98	None
Planting Date	05/10/98	05/15/98 10/12/98	10/02/97 Winter Wheat 04/07/98 Red Clover
Variety Rate	Asgrow 2301 250,000 seeds/a	NK 23-12 190,000 seeds/a Glacier Winter Wheat 130 lb/a	150 lb/a Glacier 15 lb/a Arl. Red Clover
Fertilizer	None	None	None
Pesticides	<u>Pre-plant:</u> 04/30/98 Roundup (1 pt/a) <u>Post-emergence:</u> 06/08 Roundup-Ultra (1 pt/a)	None	None
Rotary Hoe	None	06/04/98 06/10/98	None
Cultivation	None	06/17/98 06/23/98 07/11/98	None
Harvest	10/13/98	10/11/98	07/17/98 Combined 07/18/98 Baler
Yield	63.61 bu/a	51.89 bu/a	57.66 bu/a Wheat 0.59 tons/a straw
Fall Practices	None	10/11/98 digger 10/12/98 Double disk drill Glacier W. Wheat (130 lb/a)	10/22/98 Stalk Chopper 11/17/98 Chisel Plow w/sweeps
Crop-99	Corn	Wheat / Red Clover	Corn

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Forage rotations						
CROP-98 Rotation Treatment #	D.S. Alfalfa CS4 7	Estab. Alfalfa I CS4 10	Estab. Alfalfa II CS4 9	Oats/Alfalfa CS5 13	Estab. Alfalfa I CS5 12	Pasture CS6 14
Plot #'s	111, 209, 305, 409	107, 205, 309, 404	105, 203, 308, 406	114, 211, 312, 403	103, 213, 314, 410	112, 207, 302, 405
Primary Tillage	Chisel Plow 11/20/97	None	None	Chisel Plow 11/20/97	None	None
Secondary Tillage	Field Digger 04/15/98	None	None	Field Digger 04/15/98	None	None
Planting Date Variety	04/15/98 Wintergreen	04/17/97 Innovator+Z	04/08/96 ICI 631	04/15/98 Wintergrm Alf Bay Oats Trapper Peas	04/17/97 Innovator+Z	
Rate	15 lb/a	15 lb/a	15 lb/a	11 lb/a Alf 50 lb/a Oats 50 lb/a Pea	12 lb/a	
Fertilizer	None			None	None	None
Manure	11/06/97 20 ton/a	None	None	11/06/97 15 ton/a	None	Grazing
Pesticides	Post-emerge: 06/03/98 Pursuit (1.08 oz/a) 06/24/98 Dimetholate (1 pt/a)	None	10/26/98 Roundup (1 pt/a)	None	10/26/98 Roundup (1 pt/a)	None
Harvest	07/07/98 08/18/98	05/19/98 07/07/98 08/06/98 09/04/98	05/19/98 07/07/98 08/06/98 09/04/98	Oatlage: 06/23/98 Haybine: 08/18/98	05/19/98 07/07/98 08/18/98 09/30/98	Rotational Grazing
Yield	2.63 tDM/a	4.30 tDM/a	4.13 tDM/a	Oatlage 4.29 tDM/a Alfalfa 1.38 tDM/a	4.45 tDM/a	
Fall Practices			10/28/98 Manure 20 ton/a 11/17/98 Chisel Plow		10/28/98 Manure 15 ton/a 11/17/98 Chisel Plow	
Crop-99	Alf I	Alf II	Corn	Alf I	Corn	Pasture

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Satellite plots – Cropping System 3

CROP-98 Rotation Treatment #	Corn CS3 5	WR Soybean/Wheat CS3 4	Wheat/Red Clover CS3 6
Primary Tillage	11/20/97 Chisel plow 05/14/98 Chisel w/sweeps	Chisel Plow 11/20/97	10/02/97 Digger
Secondary Tillage	05/15/98 Field cultivator	Field Cultivation 05/15/98	None
Planting Date	05/15/98	SB: 05/15/98 WW: 10/12/98	10/02/97 Winter Wheat 04/07/98 Red Clover
Variety Rate	Dekalb 471 34,500	NK 23-12 190,000 seeds/a Glacier Winter Wheat 130/lb/a	150 lb/a Glacier 15 lb/a Red Clover
Fertilizer	None	None	None
Pesticides	None	None	None
Rotary Hoe	None	06/04/98 06/10/98	None
Cultivation	06/04/98 06/10/98 06/19/98	06/17/98 06/23/98 07/11/98	None
Harvest	10/20/98	10/11/98	07/17/98 Combined 07/18/98 Baler
Yield	199.7 bu/a	62.5 bu/a	59.2 bu/a Wheat 0.73 tons/a straw
Fall Practices	10/28/98 Stalk chop 10/29/98 Chisel plow	10/11/98 digger 10/12/98 Double disk drill Glacier W. Wheat (130 lb/a)	10/22/98 Stalk chopper 11/17/98 Chisel Plow w/sweeps
Crop 99	Soybean	Wheat / Red Clover	Corn