Appendix VI. B1. ARLINGTON RESEARCH STATION WICST - INPUT/OUTPUT DATA - Cash Grain Rotations - 1991

| Crop<br>Rotation<br>Treatment<br>Plot #'s | Continuous Corn<br>R1<br>1<br>109,204,306,412 | Narrow Row Beans<br>R2<br>2<br>108,206,310,408 | Corn<br>R2<br>3<br>101,214,303,401 | Filler Corn<br>R3<br>4<br>104,201,301,402 | Wheat/Red Clover<br>R3<br>5<br>106,202,307,411 | Wide Row Beans<br>R3<br>6<br>102,212,313,407 |
|---|---|---|---|---|---|---|
| Primary Tillage | Chisel Plow<br>11/8/90 | Chisel Plow<br>11/8/90 | No-Till | Chisel Plow<br>11/8/90 | None | Chisel Plow<br>11/8/90 |
| Secondary Tillage | Disk<br>Soil Finisher | Soil Finisher<br>Soil Finisher | None | Disk<br>Soil Finisher | None | Soil Finisher |
| Planting Date | 4/27/91 | 5/15/91 | 4/27/91 | 4/27/91 | 9/12/90 wheat<br>3/26/91 clover | 5/15/91 soybean<br>9/4/91 wheat |
| Variety | DeKalb 547 | Pioneer 9272 | DeKalb 547 | DeKalb 547 | Caldwell - wheat<br>Arling. - rd clov. | Pioneer 9272<br>Caldwell - wheat |
| Population | 32,100 | 234,000 | 32,100 | 32,100 | 120 lb/A wheat<br>12 lb/A clover | 156,000 soybean<br>180 lb/A wheat |
| Fertilizer | 100 lb/A 6-24-24<br>146 lb/A 82-0-0 | None | 100 lb/A 6-24-24<br>110 lb/A 82-0-0 | 128 lb 82-0-0 | None | None |
| Pesticides | Lasso 2 qt/A<br>Atrazine 1.5 qt/A<br>preemerge<br>Counter 15G 9 lb/A<br>planter applied | Treflan 1.5 pt/A<br>Lexone DF .5 lb/A<br>ppi | Lasso 2 qt/A<br>Bladex 2.5 qt/A<br>preemerge<br>Accent .67 oz/A<br>post | Counter 15G 9 lb/A<br>planter applied | None | None |
| Mechanical Weeding | No-till cult.<br>6/6/91 | None | No-till cult.<br>6/6/91 | Rotary hoe<br>5/9, 5/13/91<br>No-till cult.<br>5/30, 6/6/91 | None | Rotary hoe<br>5/29/91<br>No-till cult.<br>6/6/91 |
| Yield | 160 bu/A | 60 bu/A | 185 bu/A | 124 bu/A | 64 bu/A | 51 bu/A |
| 1992 Crops | Corn | Corn | Narrow Row Beans | Wide Row Beans | Corn | Wheat/<br>Red Clover |

Appendix VI. B2. ARLINGTON RESEARCH STATION WICST - INPUT/OUTPUT DATA - Forage Rotations - 1991

| Crop | Est. Alfalfa | D. S. Alfalfa | Filler Corn | Filler Corn | Est. Alfalfa | Oats/Alfalfa | Filler Corn | Pasture |
|---|---|---|---|---|---|---|---|---|
| Rotation | R4 | R4 | R4 | R4 | R5 | R5 | R5 | R6 |
| Treatment | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| Plot #'s | 111,209,305,409 | 113,210,311,414 | 105,203,308,406 | 107,205,309,404 | 110,208,304,413 | 103,213,314,410 | 114,211,312,403 | 112,207,302,405 |
| Primary Tillage | | Chisel Plow 11/8/90 | Chisel Plow 11/8/90 | Chisel Plow 11/8/90 | | Chisel Plow 11/8/90 | Chisel Plow 11/8/90 | |
| Secondary Tillage | | Disk Soil Finisher | Disk Soil Finisher | Disk Soil Finisher | | Disk Soil Finisher | Disk Soil Finisher | |
| Planting Date | 4/23/90 | 4/8/91 | 4/27/91 | 4/27/91 | 4/23/90 | 4/8/91 | 4/27/91 | 4/23/90 |
| Variety | Magnum III | Magnum III | DeKalb 547 | DeKalb 547 | Magnum III | Horicon-oats Magnum III-alf. | DeKalb 547 | Marathon-rd clov. Toro-timothy Badger-brome |
| Population | | 15 lb/A | 32,100 | 32,100 | | 15 lb/A alfalfa 64 lb/A oats | 32,100 | 7 lb/A rd clov. 4 lb/A timothy 8 lb/A brome |
| Fertilizer | | 20 T/A manure 10/29/90 | 128 lb 82-0-0 20 T/A manure 10/30/91 | 128 lb 82-0-0 | 15 T/A manure 10/31/91 | 15 T/A manure 10/23/90 | 128 lb 82-0-0 15 T/A manure 10/31/91 | 10 T/A manure 10/29/90 11/4/91 |
| Pesticides | Malathion 1 qt/A 7/18/91 | Eptam 2 qt/A ppi Malathion 1 qt/A 7/18/91 | Lasso 2 qt/A Bladex 2.5 qt/A preemerge Counter 15G 9 lb/A planter applied | Lasso 2 qt/A Bladex 2.5 qt/A preemerge Counter 15G 9 lb/A planter applied | | | Counter 15G 9 lb/A planter applied | |
| Mechanical Weeding | | | No-till cult. 6/6/91 | No-till cult. 6/6/91 | | | Rotary hoe 5/9,13,21/91 No-till cult. 5/30, 6/6/91 | |
| Harvest | 6/4/91 7/10/91 8/15/91 10/23/91 | 6/19/91 7/29/91 8/28/91 10/23/91 | 10/3/91 | 10/3/91 | 6/4/91 7/10/91 8/15/91 10/23/91 | Oats 7/16/91 Straw 7/19/91 Alfalfa 8/29/91 | 10/3/91 | 6/4/91 7/10/91 8/15/91 |
| Yield | 5.8 T DM/A | 5.1 T DM/A | 156 bu/A | 160 bu/A | 5.8 T DM/A | 55 bu/A oats 1.0 T/A straw 1.4 T DM/A alf | 124 bu/A | 4.7 T DM/A |
| 1992 Crops | Alfalfa Hay | Alfalfa Hay | D.S. Alfalfa | Filler Corn | Corn | Alfalfa Hay | Oats/Alfalfa | Pasture |