

## Appendix I-B. 2000 WICST INPUT/OUTPUT DATA - ARLINGTON RESEARCH STATION

| Corn rotations                     |                                                                                   |                                                                                                 |                                     |                                                                                |                                                                                |
|------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| CROP-00<br>Rotation<br>Treatment # | CORN<br>CS1<br>1                                                                  | CORN<br>CS2<br>2                                                                                | CORN<br>CS3<br>4                    | CORN<br>CS4<br>10                                                              | CORN<br>CS5<br>13                                                              |
| Plot #'s                           | 109, 204,<br>306, 412                                                             | 108, 206,<br>310, 408                                                                           | 104, 201,<br>301, 402               | 107, 205,<br>309, 404                                                          | 114, 211,<br>312, 403                                                          |
| Primary<br>Tillage                 | Chisel plow<br>11/16/99                                                           | No-till                                                                                         | Chisel plow<br>w/sweeps<br>11/16/99 | Chisel plow<br>11/16/99                                                        | Chisel plow<br>11/16/99                                                        |
| Secondary<br>Tillage               | Field digger<br>4/27/00                                                           | None                                                                                            | Field digger<br>4/27/00, 5/15/00    | Field digger<br>4/27/00                                                        | Field digger<br>4/27/00, 5/10/00                                               |
| Planting Date                      | 05/01/00                                                                          | 5/1/00                                                                                          | 5/15/00                             | 5/1/00                                                                         | 5/15/00                                                                        |
| Variety                            | Cargill 4111                                                                      | Cargill 4111                                                                                    | Cargill 4111                        | Cargill 4111                                                                   | Cargill 4111                                                                   |
| Rate                               | 32,000 seeds/a                                                                    | 32,000 seeds/a                                                                                  | 34,500 seeds/a                      | 32,000 seeds/a                                                                 | 34,500 seeds/a                                                                 |
| Starter<br>Fertilizer              | 100 lb product<br>9-23-30                                                         | 100 lb product<br>9-23-30                                                                       | None                                | 100 lb product<br>9-23-30                                                      | None                                                                           |
| Nitrogen<br>Fertilizer             | 80 lb N/a<br>82-0-0<br>4/25/00 preplant<br>160 lb N/a 82-0-0<br>6/22/00 sidedress | 80 lb N/a <sup>1</sup><br>82-0-0<br>04/25/00 preplant<br>120 lb N/a 82-0-0<br>6/22/00 sidedress | None                                | None                                                                           | None                                                                           |
| Manure                             | None                                                                              | None                                                                                            | None                                | 20 ton/a<br>11/15/99                                                           | 15 ton/a<br>11/15/99                                                           |
| Pesticides                         | 5/1/00<br>Force (5 lb/a)<br><u>Pre-emergence</u><br>5/4/00<br>Dual II (2 pt/a)    | <u>Pre-emergence</u><br>5/4/00<br>Dual II (2 pt/a)                                              | None                                | <u>Pre-emergence:</u><br>5/4/00<br>Dual II (2 pt/a)                            | None                                                                           |
| Rotary Hoe                         | 5/23/00                                                                           | None                                                                                            | 5/23/00, 5/26/00                    | None                                                                           | 5/23/00, 5/26/00                                                               |
| Cultivation                        | 6/19/00                                                                           | None                                                                                            | 6/19/00, 6/30/00                    | 6/30/00                                                                        | 6/19/00, 6/30/00                                                               |
| Harvest                            | 10/25/00                                                                          | 10/25/00                                                                                        | 10/25/00                            | 10/25/00                                                                       | 10/25/00                                                                       |
| Yield                              | 161.6 bu/a                                                                        | 162.9 bu/a                                                                                      | 132.8 bu/a                          | 179.4 bu/a                                                                     | 135.2 bu/a                                                                     |
| Fall<br>Practices                  | Chop stalks<br>11/09/00<br>Chisel plow<br>11/10/00                                | None                                                                                            | None                                | Chop stalks<br>11/9/00<br>Manure 20 t/a<br>11/10/00<br>Chisel plow<br>11/11/00 | Chop stalks<br>11/9/00<br>Manure 15 t/a<br>11/10/00<br>Chisel plow<br>11/11/00 |
| Crop 2001                          | Corn                                                                              | Soybean                                                                                         | Soybean                             | D.S. Alfalfa                                                                   | Oats/Alfalfa                                                                   |

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

**Appendix I-B. 2000 WICST INPUT/OUTPUT DATA - ARLINGTON RESEARCH STATION****Soybean and Wheat Rotations**

| <b>CROP-00<br/>Rotation<br/>Treatment #</b> | <b>NR Soybean<br/>CS2<br/>3</b>  | <b>WR Soybean/Wheat<br/>CS3<br/>6</b>                | <b>Wheat/Red Clover<br/>CS3<br/>5</b>                    |
|---------------------------------------------|----------------------------------|------------------------------------------------------|----------------------------------------------------------|
| <b>Plot #'s</b>                             | 101, 214, 303, 401               | 102, 112, 313, 407                                   | 106, 202, 307, 411                                       |
| <b>Primary<br/>Tillage</b>                  | No-till                          | Chisel plow 11/16/99                                 | Field digger 10/7/99                                     |
| <b>Secondary<br/>Tillage</b>                | None                             | Field digger<br>4/27/00, 5/10/00                     | None                                                     |
| <b>Planting Date</b>                        | 5/15/00                          | SB: 5/15/00<br>WW: 10/11/00                          | Red clover: 3/8/00<br>WW: 10/8/99                        |
| <b>Variety<br/>Rate</b>                     | Asgrow 2301<br>250,000 seeds/a   | Novartis 1990<br>190,000 seeds/a<br>Kaskaskia 3 bu/a | Arlington red clover: 15 lb/a<br>Glacier wheat: 130 lb/a |
| <b>Fertilizer</b>                           | None                             | None                                                 | None                                                     |
| <b>Pesticides</b>                           | 5/4/00<br>Roundup-Ultra (1 pt/a) | None                                                 | None                                                     |
| <b>Rotary Hoe</b>                           | None                             | 5/23/00, 5/26/00                                     | None                                                     |
| <b>Cultivation</b>                          | None                             | 6/19/00, 6/30/00, 7/14/00                            | None                                                     |
| <b>Harvest</b>                              | 10/10/00                         | 10/10/00                                             | Grain: 7/19/00<br>Straw: 7/25/00                         |
| <b>Yield</b>                                | 56.3 bu/a                        | 40.9 bu/a <sup>1</sup>                               | Grain: 41.7 bu/a<br>Straw: 0.83 t DM/a                   |
| <b>Fall<br/>Practices</b>                   | None                             | Plant wheat 10/11/00                                 | Chisel plow w/sweeps 10/11/00                            |
| <b>Crop 2001</b>                            | Corn                             | Wheat / Red Clover                                   | Corn                                                     |

<sup>1</sup> Low yields related to very heavy weed pressure.

## Appendix I-B. 2000 WICST INPUT/OUTPUT DATA - ARLINGTON RESEARCH STATION

| Forage rotations                   |                                                                                                |                                        |                                                                  |                                                   |                                                                  |                                          |
|------------------------------------|------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------------|------------------------------------------|
| CROP-00<br>Rotation<br>Treatment # | D.S. Alfalfa<br>CS4<br>9                                                                       | Estab.<br>Alfalfa I<br>CS4<br>8        | Estab.<br>Alfalfa II<br>CS4<br>7                                 | Oats/Alfalfa<br>CS5<br>12                         | Estab.<br>Alfalfa I<br>CS5<br>11                                 | Pasture<br>CS6<br>14                     |
| Plot #'s                           | 105, 203,<br>308, 406                                                                          | 113, 210,<br>311, 414                  | 111, 209,<br>305, 409                                            | 103, 213,<br>314, 410                             | 110, 208,<br>304, 413                                            | 112, 207,<br>302, 405                    |
| Primary<br>Tillage                 | Chisel plow<br>11/16/99                                                                        | None                                   | None                                                             | Chisel plow<br>11/16/99                           | None                                                             | None                                     |
| Secondary<br>Tillage               | Field digger,<br>soil finisher<br>3/30/00                                                      | None                                   | None                                                             | Field digger,<br>soil finisher<br>3/30/00         | None                                                             | None                                     |
| Planting Date<br>Variety           | 3/30/00<br>Dekalb 124                                                                          | 3/24/99<br>Wintergreen                 | 4/15/98<br>Wintergreen                                           | 3/30/00<br>Dekalb 124<br>Bay Oats<br>Trapper peas | 3/24/99<br>Wintergreen,<br>oats, trapper<br>peas                 | None                                     |
| Rate                               | 12 lb/a                                                                                        | 12 lb/a                                | 15 lb/a                                                          | 12 lb/a<br>2.5 bu/a<br>50 lb/a                    | Alf - 12 lb/a<br>Oats - 80 lb/a<br>Peas - 50 lb/a                | None                                     |
| Fertilizer                         | None                                                                                           | None                                   | None                                                             | None                                              | None                                                             | 40 lb N/a all<br>but plot 207<br>6/15/00 |
| Manure                             | 20 ton/a<br>11/15/99                                                                           | None                                   | None                                                             | 15 ton/a<br>11/15/99                              | None                                                             | Grazing                                  |
| Pesticides                         | 5/15/00,<br>Pursuit<br>(1.08 oz/a)<br>5/15/00,<br>Amm. Sulf.<br>(2.5 lb/a)<br>Activat. (1 t/a) | None                                   | None                                                             | None                                              | None                                                             | None                                     |
| Harvest                            | 7/11/00<br>8/22/00                                                                             | 5/23/00<br>6/30/00<br>8/1/00<br>9/6/00 | 5/23/00<br>6/30/00<br>8/1/00<br>9/6/00                           | Oatlage:<br>6/29/00<br>Haylage:<br>8/30/00        | 5/23/00<br>6/30/00<br>8/1/00<br>9/6/00                           | Hay<br>5/16/00<br>6/16/00                |
| Yield                              | 2.59 t DM/a                                                                                    | 5.44 t DM/a                            | 5.31 t DM/a                                                      | Oatlage: 2.75<br>Haylage: 1.40<br>t DM/a          | 5.86 t DM/a                                                      | 1.75 lb/hd/dy<br>2.13 t DM/a             |
| Fall<br>Practices                  | None                                                                                           | None                                   | Manure 20 t/a<br>11/10/00<br>Chisel plow<br>w/sweeps<br>11/11/00 | None                                              | Manure 15 t/a<br>11/10/00<br>Chisel plow<br>w/sweeps<br>11/12/00 | None                                     |
| Crop 2001                          | Alf I                                                                                          | Alf II                                 | Corn                                                             | Alf I                                             | Corn                                                             | Pasture                                  |

**Appendix I-B. 2000 WICST INPUT/OUTPUT DATA - ARLINGTON RESEARCH STATION****Satellite plots – Chemlite of Cropping System 3**

|                          |                                                                      |                                       |                                        |
|--------------------------|----------------------------------------------------------------------|---------------------------------------|----------------------------------------|
| <b>CROP-00</b>           | <b>Corn</b>                                                          | <b>WR Soybean/Wheat</b>               | <b>Wheat/Red Clover</b>                |
| <b>Rotation</b>          | <b>CS3</b>                                                           | <b>CS3</b>                            | <b>CS3</b>                             |
| <b>Treatment #</b>       | <b>4</b>                                                             | <b>6</b>                              | <b>5</b>                               |
| <b>Primary Tillage</b>   | Chisel plow w/sweeps<br>11/16/99                                     | Chisel plow 11/16/99                  | Field digger<br>10/7/99                |
| <b>Secondary Tillage</b> | Field digger<br>4/27/00, 5/10/00                                     | Field digger<br>4/27/00, 5/10/00      | None                                   |
| <b>Planting Date</b>     | 5/15/00                                                              | SB: 5/1500<br>WW: 10/11/00            | Red clover: 3/8/00<br>WW: 10/8/99      |
| <b>Variety</b>           | Cargill 4111                                                         | Novartis 1990                         | Arlington red clover: 15 lb/a          |
| <b>Rate</b>              | 34,500 seeds/a                                                       | 190,000 seeds/a<br>Kaskaskia 180 lb/a | Glacier wheat: 130 lb/a                |
| <b>Fertilizer</b>        | 80 lb N/a<br>82-0-0 - 4/25/00<br>100 lb/a Starter<br>9-23-30 5/15/00 | None                                  | None                                   |
| <b>Pesticides</b>        | None                                                                 | None                                  | Poast 1.5 pt/a<br>6/15/00              |
| <b>Rotary Hoe</b>        | 5/23/00, 5/26/00                                                     | 5/23/00, 5/26/00                      | None                                   |
| <b>Cultivation</b>       | 6/19/00, 6/30/00                                                     | 6/19/00, 6/30/00, 7/14/00             | None                                   |
| <b>Harvest</b>           | 10/25/00                                                             | 10/10/00                              | 7/19/00                                |
| <b>Yield</b>             | 154.5 bu/a                                                           | 51.6 bu/a                             | Grain: 52.3 bu/a<br>Straw: 0.75 t DM/a |
| <b>Fall Practices</b>    | Chopped stalks 11/9/00<br>Chisel plow 11/10/00                       | Planted wheat<br>10/11/00             | Chisel plow w/sweeps<br>11/11/00       |
| <b>Crop 2001</b>         | <b>Soybean</b>                                                       | <b>Wheat / Red Clover</b>             | <b>Corn</b>                            |