

# 2014 Agronomic Calendar for WICST (440)

## ARLINGTON RESEARCH STATION

| Corn rotations                                    |                                                                                                                                                   |                                                                                                                                                       |                                                                                                                               |                                                                                                |                                                                                                |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| CROP-2014<br>Rotation<br>Treatment #<br>Plot No.s | CORN<br>CS1<br>1<br>109, 204, 306, 412                                                                                                            | CORN<br>CS2<br>2<br>108, 206, 310, 408                                                                                                                | CORN<br>CS3<br>6<br>102, 212, 313, 407                                                                                        | CORN<br>CS4<br>8<br>113, 210, 311, 414                                                         | CORN<br>CS5<br>12<br>103, 213, 314, 410                                                        |
| Primary<br>Tillage                                | Disk-chisel (AGCo 4511)<br>12-5-2013                                                                                                              | Strip-tilled<br>12-5-2013                                                                                                                             | Disk-chisel<br>(AGCo 4511)12-5-2013                                                                                           | Disk-chisel (AGCo 4511)<br>4-23-2014 @ 10"                                                     | Disk-chisel (AGCo 4511), 2x,<br>deep 12-5-2013                                                 |
| Secondary<br>Tillage                              | Field Cultivated<br>(AGCo 5035) 6" 5/20/2014                                                                                                      | None                                                                                                                                                  | CaseIH field cult 4"<br>5-19-14<br>Agco field cult 5-22-14                                                                    | Field Cultivated<br>(AGCo 5035) 6" 5/20/2014                                                   | Case IH turbo-till 5/17/2014<br>CaseIH field cult 4" 5/19/2014<br>AGCo Field cult 5/22/2014    |
| Planting<br>Date<br>Variety<br>Rate               | 5-22-2014<br>Renk 752SSTX 104d,<br>34,000 seeds/a                                                                                                 | 5-19-2014<br>Renk 752SSTX<br>104d,<br>34,000 seeds/a                                                                                                  | 5-22-2014<br>Blue River 41R00<br>98d, 38,000 seeds/a                                                                          | 5-22-2014<br>Renk 752SSTX 104d,<br>34,000 seeds/a                                              | 5-22-2014<br>Blue River 41R00 98d,<br>38,000 seeds/a                                           |
| Starter<br>Fertilizer                             | 100 lb<br>5-14-42                                                                                                                                 | 100 lb<br>5-14-42                                                                                                                                     | None                                                                                                                          | 100 lb<br>5-14-42                                                                              | None                                                                                           |
| Misc<br>Fertilizer                                | None                                                                                                                                              | 18-46-0 4/21/2014<br>108 (W45'): 60 lbs/ac<br>0-0-60 5/21/2014<br>310: 58 lbs/ac                                                                      | None                                                                                                                          | None                                                                                           | None                                                                                           |
| Nitrogen<br>Fertilizer                            | Anhydrous 5/19/2014<br>109, 306 (W45'): 160 lbs N/ac<br>204,412 (W45'): 150 lbs N/ac<br>109,204,306 (E15'): 100lbs N/ac<br>412 (E15'): 60lbs N/ac | 28% UAN 6/16/2014<br>150 lbs N/ac (W45')                                                                                                              | None                                                                                                                          | None                                                                                           | None                                                                                           |
| Manure                                            | 11,000 GPA liquid<br>manure (Blaine Dairy)<br>10/30/2012 (E15')                                                                                   | 12,000 GPA liquid<br>manure (Blaine Dairy)<br>11/20/2013 (E15')                                                                                       | 12,000 GPA liquid manure<br>(Blaine Dairy) 11/20/2013<br>(E15')<br>1.84 ton/ac CPM 5/8/2014<br>(W45')                         | 8,000 GPA liquid<br>manure (Blaine Dairy)<br>11/20/2013                                        | 12,000 GPA liquid<br>manure (Blaine Dairy)<br>11/20/2013                                       |
| Pesticides/<br>Herbicides                         | Post-emerge 6/24/2014 Round<br>Up Power Max 32 oz/ac                                                                                              | Pre-emerge 5/20/2014<br>Defy 16 oz/ac + Dual II<br>Magnum 24 oz/ac +<br>Hornet WDG 4 oz/ac<br>Post-emerge 6/24/2014<br>Round Up Power Max 32<br>oz/ac | None                                                                                                                          | Post-emerge 6/24/2014 Round<br>Up Power Max 32 oz/ac                                           | None                                                                                           |
| Rotary Hoe                                        | None                                                                                                                                              | None                                                                                                                                                  | 1st Rotary Hoe 5/30/2014<br>2nd Rotary Hoe 6/6/2014                                                                           | None                                                                                           | 1st Rotary Hoe 5/30/2014<br>2nd Rotary Hoe 6/6/2014                                            |
| Cultivation                                       | None                                                                                                                                              | None                                                                                                                                                  | 1st and only cultivation 3"<br>with Wil-Rich 6/25/2014                                                                        | None                                                                                           | 1st and only cultivation 3" with<br>Wil-Rich 6/25/2014                                         |
| Harvest<br>Date & Yield                           | E/W 11/11/2014<br>Main 11/7/2014<br>201 bu/ac                                                                                                     | E/W 11/11/2014<br>Main 11/7/2014<br>214 bu/ac                                                                                                         | 11/4/2014<br>162 bu/ac                                                                                                        | 11/7/2014<br>232 bu/ac                                                                         | 11/7/2014<br>200 bu/ac                                                                         |
| Fall<br>Practices                                 | Chisel plow (AGCo<br>7400) 10" 11/12/2014                                                                                                         | None                                                                                                                                                  | Soil Sampling<br>11/5/2014:<br>Fall Nitrates<br>Deep archive<br>Routine fertility<br>Chisel plow (AGCo<br>4511) 10" 11/5/2014 | 12,000 GPA liquid manure<br>(Blaine Dairy) 11/12/2014<br>Disk-Chisel (AGCO 7400)<br>11/12/2014 | 12,000 GPA liquid manure<br>(Blaine Dairy) 11/12/2014<br>Disk-Chisel (AGCO 7400)<br>11/12/2014 |
| Crop 2015                                         | Corn                                                                                                                                              | Soybean                                                                                                                                               | Soybean                                                                                                                       | D.S. Alfalfa                                                                                   | Oats/Alfalfa                                                                                   |

Lime (80-89grade) was applied to select plots at 2 ton/a on 11-9-12  
Plot 412 rows 14,15,16,17 looked missed by anhydrous, sidedressed on 6/27/2014 with 150lbs N/ac in the form of urea.  
Plot 306 had significant weed pressure carry over from 2013. 2014 post herbicide was too little, too late. Corn is severely stunted.  
Used Stalk chopper on Case IH combine for CS1, CS3, CS4, and CS5 corn  
CERES plots in CS3 (102 North 150', 313 North 150', 407 South 150').

**Soybean and Wheat Rotations**

| <b>CROP-2014<br/>Rotation<br/>Treatment #</b>      | <b>NR Soybean<br/>CS2<br/>3</b>                                                                         | <b>WR Soybean/Wheat<br/>CS3<br/>5</b>                                                                                                    | <b>Wheat/oat berseem clover CC<br/>CS3<br/>4</b>                                                                                                        |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Plot #'s</b>                                    | 101, 214, 303, 401                                                                                      | 106, 202, 307, 411                                                                                                                       | 104, 201, 301, 402                                                                                                                                      |
| <b>Primary Tillage</b>                             | None                                                                                                    | Disk-chiseled<br>12-5-2013                                                                                                               | Turbo-tilled 2.5" (Case IH disk<br>leveler) 10/2/2013                                                                                                   |
| <b>Secondary<br/>Tillage</b>                       | None                                                                                                    | Agco field cult 6" 5/20/2014<br>Agco field cult 5/22/2014 (202<br>and 307)                                                               | None                                                                                                                                                    |
| <b>Planting Date</b>                               | 5-23-2014                                                                                               | SB: 5-22-2014<br>WW: 9-30-2014                                                                                                           | WW: 10-11-2013<br>CC: 7-30-2014 AGCo 9312 drill<br>Both with NT drill                                                                                   |
| <b>Variety<br/>Rate</b>                            | Renk 213NR2<br>225,000 seeds/ac                                                                         | <b>SB:</b> Blue River 12A2<br>190,000 viable seeds/ac;<br><b>WW:</b> Kaskaskia @ 171 lb/ac<br>(AGCo Massey Ferguson 9312<br>drill)       | <b>WW:</b> MOFC 1021 (organic):<br>125 lb/ac (drill set at 150lbs/ac);<br><b>CC:</b> 14 lb/ac berseem clover;<br>60 lb/ac Forage Plus oats              |
| <b>Fertilizer/<br/>Manure</b>                      |                                                                                                         | 54 lbs/ac of 0-0-50 applied on<br>plot No. 202 5/21/2014                                                                                 | CPM @ 1 ton/ac on 5/16/2014                                                                                                                             |
| <b>Pesticides/<br/>Herbicides/<br/>Cultivation</b> | <u>Pre-merge:</u> 5/23/2014 Dual II<br>Magnum 32 oz/ac + Pursuit 4 oz/ac +<br>Roundup PowerMax 22 oz/ac | 1 <sup>st</sup> Tine Weeding: 6/6/2014<br>2 <sup>nd</sup> Tine Weeding: 6/13/2014<br>6/25/2014 1.5" (Wil-Rich)<br>7/7/2014 2" (Wil-Rich) | None                                                                                                                                                    |
| <b>Harvest date &amp;<br/>yield</b>                | 10-10-2014<br>64 bu/ac                                                                                  | 9-29-2014<br>58 bu/ac                                                                                                                    | Wheat: grain crop failure<br>Baleage: 7-18-2014<br>2.11 t dm/ac                                                                                         |
| <b>Fall Practices</b>                              | Strip till (Blu Jet)<br>12-5-2013                                                                       | Chisel plow (AGCo 4511) 12"<br>9/29/2014<br>Field cultivate 9/30/2014<br>Plant winter wheat 9/30/2014                                    | AGCo 4511 Chisel plow 7-22-2014<br>AGCo 5035 Field cultivator 7-23-2014<br>Plant berseem/oats/sorghum(for<br>CERES) 7-30-2014<br>Root Cutter 10/16/2014 |
| <b>Crop 2015</b>                                   | <b>Corn</b>                                                                                             | <b>Wheat / Clover+oats</b>                                                                                                               | <b>Corn</b>                                                                                                                                             |

Notes: Berseem clover from LaCrosse Forage and Turf, VNS.

CERES plots in CS3 (104 North 150', 106 North 150', 301 South 150', 307 South 150', 411 North 150', 402 South 150'.

CERES clover and oats seeding rate same as for main plot, sorghum seeding rate=42 lbs/ac.

| Forage rotations                                   |                                                                                                            |                                                                 |                                                                                                                     |                                                             |                                                                                                                      |                                                                                                                                                                                                     |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CROP-2014<br>Rotation<br>Treatment #               | D.S. Alfalfa<br>CS4<br>7                                                                                   | Alfalfa I<br>CS4<br>10                                          | Alfalfa II<br>CS4<br>9                                                                                              | Oats/Alfalfa<br>CS5<br>11                                   | Alfalfa I<br>CS5<br>13                                                                                               | Pasture<br>CS6<br>14                                                                                                                                                                                |
| Plot #'s                                           | 111, 209, 305,<br>409                                                                                      | 107, 205, 309, 404                                              | 105, 203, 308,<br>406                                                                                               | 110, 208, 304,<br>406                                       | 114, 211, 312,<br>403                                                                                                | 112, 207,<br>302, 405                                                                                                                                                                               |
| Primary<br>Tillage                                 | Disk-Chisel<br>12/5/2013                                                                                   | None                                                            | None                                                                                                                | Disk-Chisel<br>12/5/2013                                    | None                                                                                                                 | None                                                                                                                                                                                                |
| Secondary<br>Tillage                               | Field Cultivated<br>w/AGCo 5035<br>4/22/2014                                                               | None                                                            | None                                                                                                                | Field Cultivated<br>w/AGCo 5035<br>4/22/2014                | None                                                                                                                 | None                                                                                                                                                                                                |
| Variety                                            | Pioneer 55Q27                                                                                              | Hybrid Force 2400                                               | Pioneer 54Q32                                                                                                       | Blue Jay 3HR<br>& Forage Plus<br>Oats                       | WL 353LH                                                                                                             | Red Clover:<br>Freedom II<br>White Clover:<br>Kopu II                                                                                                                                               |
| Planting Rate<br>& Date                            | 13 lbs/ac<br>4/23/2014                                                                                     | 12 lb/a<br>4-29-2013                                            | 12 lb/a<br>3-21-2012                                                                                                | Alf – 15 lbs/ac<br>Oats 47 lbs/ac<br>4/23/2014              | Alf - 12 lb/a<br>4/29/2013                                                                                           | 11 lbs/ac<br>4/22/2013                                                                                                                                                                              |
| Fertilizer<br>(K20 per<br>soil test)               | None                                                                                                       | 0-0-60 on 7/11/2014<br>107: 150 lbs/ac<br>309 & 404: 300 lbs/ac | 0-0-60 7/11/2014<br>250 lbs/ac<br>0-0-60 8/8/2014<br>105 & 406: 250 lbs/ac                                          | None                                                        | 360 lbs/ac 0-0-50-<br>17S 7/11/2014:<br>(all plots)<br>360 lbs/ac 0-0-50-<br>17S 8/8/2014:<br>(211,314,403)          | 405: 50lbs N/ac 6/9/2014<br>302: 50lbs N/ac 6/16/2014<br>207: 50lbs N/ac 6/16/2014<br>112: 50lbs N/ac 6/16/2014<br>18-46-0 4/21/2014:<br>405: 60 lbs/ac<br>0-0-60 6/27/2014<br>302 & 405: 200lbs/ac |
| Manure                                             | 12,000 GPA<br>liquid manure<br>(Blaine Dairy)<br>11/20/2013                                                | None                                                            | None                                                                                                                | 12,000 GPA<br>liquid manure<br>(Blaine Dairy)<br>11/20/2013 | None                                                                                                                 | Manure from 6<br>grazing heifers<br>5-19-2014 to 10-<br>3-2014                                                                                                                                      |
| Pesticides/<br>Herbicides<br>(Per scout<br>report) | Herbicide:<br>Post-emerge:<br>5oz/ac Raptor<br>6/6/2014<br>Insecticide:<br>Mustang Max<br>3oz/ac 7/22/2014 | None                                                            | Burndown:<br>9/24/2014<br>Roundup<br>PowerMAX<br>(28oz/ac) +<br>DEFY (18 oz/ac)<br>+ FS Transform<br>Plus (8 oz/ac) | None                                                        | None                                                                                                                 | None                                                                                                                                                                                                |
| Harvest                                            | 7/9/2014<br>8/6/2014<br>9/3/2014<br>2.35 T DM/a                                                            | 6/11/2014<br>7/9/2014<br>8/6/2014<br>9/3/2014<br>6.16 T DM/a    | 6/11/2014<br>7/9/2014<br>8/6/2014<br>9/3/2014<br>5.55 T DM/a                                                        | Oatlage: 7-7<br>Haylage: 9-3<br>4.24 T DM/a                 | 6/11/2014<br>7/9/2014<br>8/6/2014<br>9/3/2014<br>5.54 T DM/a                                                         | 6/10/2014<br>7/17/2014<br>8/9/2014<br>9/10/2014<br>4.1 ton DM/ac                                                                                                                                    |
| Fall Practices                                     | Soil sampling                                                                                              | Soil sampling                                                   | Manure (Blaine<br>Dairy) 12,000 GPA<br>11/12/2014<br>Chisel Plow (AGCo<br>7400) 11/12/2014                          | Soil sampling                                               | Root cutter 10/16/2014<br>Manure (Blaine<br>Dairy) 12,000 GPA<br>11/12/2014<br>Chisel Plow (AGCo<br>7400) 11/12/2014 | Soil sampling                                                                                                                                                                                       |
| Crop 2015                                          | Alf I                                                                                                      | Alf II                                                          | Corn                                                                                                                | Alf I                                                       | Corn                                                                                                                 | Pasture                                                                                                                                                                                             |

Lime (80-89grade) was applied to select plots at 2 ton/a on 11-9-12

CS4 T10 plot No.'s 107 and 205 Alfalfa reseeded due to planter skip, (Interseeding)Variety: 80% Hybrid Force 2400, 20% unknown alfalfa variety Date: 5/22/2013 Rate: 12 lbs/ac

Hand weeding in plot No. 313 for Canada Thistle 7-2 through 7-3, 2013

| NATIVE PLOTS (switchgrass, high diversity and low diversity prairie; N=9)     |                                                                             |        |                                                                                  |                                              |
|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------|----------------------------------------------------------------------------------|----------------------------------------------|
| SARE Project                                                                  |                                                                             |        | GLBRC                                                                            |                                              |
| Forage management                                                             | Grazing                                                                     | Mowing | Control                                                                          | Biofuel Research                             |
| Area of Plots                                                                 | -----Fenced area-----                                                       |        | -----Unfenced area-----                                                          |                                              |
| Prescribed Burn                                                               | 501 through 504 burned on 4/18/2014,<br>505 through 509 burned on 4/23/2014 |        | Burned 501 though<br>503 on 5/21/2014,<br>burned 504 through<br>509 on 5/22/2014 | None                                         |
| Fertilizer                                                                    | None other than manure from grazing heifers                                 |        | None                                                                             | 50 lb N/a on main plot<br>(34-0-0)           |
| Pesticides<br>( <i>spot spray<br/>Stinger on<br/>thistles as<br/>needed</i> ) | None                                                                        |        | None                                                                             | None                                         |
| Grazing or Harvest                                                            | Grazed 6/9/2014 through 7/2/2014                                            |        | None                                                                             | Harvested with Kemper<br>C2200 on 11/13/2014 |
| Other Practices                                                               | Pastures mowed at 6-8"<br>4/7/2014, before burning                          | None   | None                                                                             | None                                         |