

## Management Practices of Area 4 SCD Cooperative Research Farm – 2017 Summary

### AREA-F FIELD OPERATIONS, NW ¼ Section 17 T138N R81W

FIELD F1 This area has been excluded from the total acreage leased by AREA IV SCDs since 1987.

### FIELD F2, OVERLAND WINTER WHEAT

Previous crop – Glenn spring wheat

09/27/16 Field seeded w/Bourgault drill @ 1.3 million seeds/ac + 85 lb/ac 11-52-0.

04/03/17 Contractor banded liquid N 27-0-0-1 @ 16 gal/ac.

No post-emergent spray.

07/14/17 Field harvested w/JD 9650 combine and 35 ft straight head (27.0 bu/ac).

08/01/17 Contractor sprayed w/Durango @ 32 oz/ac + Jackhammer @ 2 qt/100 gal.

08/29/17 Contractor sprayed field w/Durango @ 32 oz/ac + Spitfire @ 16 oz/ac + Jackhammer @ 2 qt/100 gal.

### FIELD F3, CROPLAN 432E SUNFLOWERS

Previous crop – Overland winter wheat

04/03/17 Contractor banded liquid N 27-0-0-1 @ 16 gal/ac.

05/04/17 Contractor sprayed w/Spartan Charge @ 4 oz/ac + Durango @ 32 oz/ac + Jackhammer @ 2 qt/100 gal.

05/22/17 Field planted w/JD MaxEmerge XP planter @ 24,000 seeds/ac.

07/06/17 Contractor sprayed field w/Volunteer @ 7 oz/ac + Trophy Gold @ 1 qt/100 gal.

08/04/17 Contractor aerial sprayed field w/Paradigm @ 4 oz/ac + Trophy Gold @ 2 oz/ac.

10/17/17 Field harvested w/JD 9650 and all-crop head (2600 lb/ac).

### FIELD F4, GLENN SPRING WHEAT

Previous crop – Sunflowers

04/03/17 Contractor banded liquid N 27-0-0-1 @ 16 gal/ac.

04/28/17 Contractor sprayed field w/Durango @ 16 oz/ac + Spitfire @ 10 oz/ac + Jackhammer @ 2 qt/100 gal.

05/01/17 Field seeded w/JD 30ft. 1890 drill @ 1.3 million seeds/ac + 70 lb/ac 11-52-0.

- 05/31/17 Contractor sprayed field w/Propimax @ 3 oz/ac + Widematch @ 16 oz/ac + 2,4-D LV6 @ 16 oz/ac + Axial XL @ 16 oz/ac.
- 07/15/17 Hail damage on northern portion.
- 08/23/17 Field harvested w/JD 9650 and 35 ft. straight head (21.4 bu/ac).
- 08/29/17 Contractor sprayed field w/Durango @ 32 oz/ac + Spitfire @ 16 oz/ac Jackhammer @ 2 qt/100 gal.
- 09/19/17 Field seeded to Overland winter wheat w/JD 1890 drill @ 1.3 million seeds/ac + 70 lb/ac 11-52-0.

**FIELD F5, MYCOGEN 2R158 CORN**

Previous crop – Canola

- 04/03/17 Contractor banded liquid N 27-0-0-1 @ 20 gal/ac.
- 05/04/17 Contractor sprayed w/Durango @ 32 oz/ac + Spitfire @ 10 oz/ac + Jackhammer @ 2 qt/100 gal.
- 05/18/17 Field planted w/JD MaxEmerge XP planter @ 24,000 seeds/ac.
- 06/26/17 Contractor sprayed field w/Durango @ 32 oz/ac + Status @ 5 oz/ac + Jackhammer @ 2 qt/100 gal.
- 07/15/17 Slight hail damage on northern portion.
- 10/23/17 Field harvested w/JD 9650 combine and all-crop head (78.6 bu/ac).

**FIELD F6, CROPLAN 432E SUNFLOWERS**

Previous crop – Corn

- 04/03/17 Contractor banded liquid N 27-0-0-1 @ 16 gal/ac.
- 05/04/17 Contractor sprayed w/Spartan Charge @ 4 oz/ac + Durango @ 32 oz/ac + Jackhammer @ 2 qt/100 gal.
- 05/23/17 Field planted w/JD 1750 MaxEmerge XP planter @ 24,000 seeds/ac.
- 07/06/17 Contractor sprayed field w/Volunteer @ 7 oz/ac + Trophy Gold @ 1 qt/100 gal.
- 07/15/17 Slight hail damage on northern portion.
- 08/04/17 Contractor aerial sprayed field w/Paradigm @ 4 oz/ac + Trophy Gold @ 2 oz/ac.
- 10/19/17 Field harvested w/JD 9650 combine and all-crop head (2600 lb/ac).

## AREA-G FIELD OPERATIONS, SW ¼ Section 8 T138N R81W

### FIELD G1 (FORMER TREE PLOT), GLENN SPRING WHEAT

Previous crop – Sunflowers

- 04/03/17 Contractor banded liquid N 27-0-0-1 @ 16 gal/ac.
- 04/28/17 Contractor sprayed south half of field w/Durango @ 16 oz/ac + Spitfire @ 10 oz/ac + Jackhammer @ 2 qt/100 gal.
- 05/01/17 Field seeded w/JD 30ft. 1890 drill @ 1.3 million seeds/ac + 70 lb/ac 11-52-0.
- 05/31/17 Contractor sprayed field w/Propimax @ 3 oz/ac + Widematch @ 16 oz/ac + 2,4-D LV6 @ 16 oz/ac + Axial XL @ 16 oz/ac.
- 08/11/17 Field harvested w/JD 9650 and 35 ft. straight header (15.4 bu/ac).
- 08/29/17 Contractor sprayed field w/Durango @ 32 oz/ac + Spitfire @ 16 oz/ac + Jackhammer @ 2 qt/100 gal.

### FIELD G1, GLENN SPRING WHEAT

Previous crop – Spring wheat

- 04/03/17 Contractor banded liquid N 27-0-0-1 @ 16 gal/ac.
- 04/28/17 Contractor sprayed south half of field w/Durango @ 16 oz/ac + Spitfire @ 10 oz/ac + Jackhammer @ 2 qt/100 gal.
- 05/01/17 Field seeded w/JD 30ft. 1890 drill @ 1.3 million seeds/ac + 70 lb/ac 11-52-0.
- 05/31/17 Contractor sprayed field w/Propimax @ 3 oz/ac + Widematch @ 16 oz/ac + 2,4-D LV6 @ 16 oz/ac + Axial XL @ 16 oz/ac.
- 08/11/17 Field harvested w/JD 9650 and 35 ft. straight header (15.4 bu/ac).
- 08/29/17 Contractor sprayed field w/Durango @ 32 oz/ac + Spitfire @ 16 oz/ac + Jackhammer @ 2 qt/100 gal.

### FIELD G2, GLENN SPRING WHEAT

Previous crop – Sunflowers

- 04/03/17 Contractor banded liquid N 27-0-0-1 @ 16 gal/ac.
- 04/28/17 Contractor sprayed south half of field w/Durango @ 16 oz/ac + Spitfire @ 10 oz/ac + Jackhammer @ 2 qt/100 gal.

05/01/17 Field seeded w/JD 30ft. 1890 drill @ 1.3 million seeds/ac + 70 lb/ac 11-52-0.

05/31/17 Contractor sprayed field w/Propimax @ 3 oz/ac + Widematch @ 16 oz/ac + 2,4-D LV6 @ 16 oz/ac + Axial XL @ 16 oz/ac.

07/15/17 Hail damage.

08/01/17 Field harvested w/JD 9650 and 35 ft. straight header (15.4 bu/ac).

08/29/17 Contractor sprayed field w/Durango @ 32 oz/ac + Spitfire @ 16 oz/ac + Jackhammer @ 2 qt/100 gal.

### **FIELD G3, FALLOW**

Previous crop – Spring wheat

05/04/17 Field sprayed w/Durango @ 32 oz/ac + Spitfire @ 10 oz/ac + Jackhammer @ 2 qt/100 gal.

07/12/17 Contractor sprayed w/Durango @ 32 oz/ac + Spitfire @ 16 oz/ac + Jackhammer @ 2 qt/100 gal.

08/11/17 Contractor sprayed w/Durango @ 32 oz/ac + Detonate @ 8 oz/ac + Class Act @ 2 gal./100 gal.

### **FIELD G4, GLENN SPRING WHEAT**

Previous management – Fallow

04/03/17 Contractor banded liquid N 27-0-0-1 @ 16 gal/ac.

04/27/17 Field seeded w/JD 30ft. 1890 drill @ 1.3 million seeds/ac + 70 lb/ac 11-52-0.

05/31/17 Contractor sprayed field w/Propimax @ 3 oz/ac + Widematch @ 16 oz/ac + 2,4-D LV6 @ 16 oz/ac + Axial XL @ 16 oz/ac.

07/15/17 Hail damage.

08/11/17 Field harvested w/JD 9650 and 35 ft. straight header (16.9 bu/ac).

08/29/17 Contractor sprayed field w/Durango @ 32 oz/ac + Spitfire @ 16 oz/ac + Jackhammer @ 2 qt/100 gal.

### **AREA-H FIELD OPERATIONS, NE ¼ Section 18 T138N R81W**

#### **FIELD H1, VERNAL ALFALFA**

Previous crop – Alfalfa

06/06/17 First cutting done by Northern Lights Dairy (1.25 tons/ac)

07/17/17 Second cutting done by Northern Lights Dairy (0.32 ton/ac).

08/12/17 Third cutting done by Northern Lights Dairy (0.44 ton/ac).

### **FIELD H2, GLENN SPRING WHEAT**

Previous crop – Pioneer soybeans

04/03/17 Contractor banded liquid N 27-0-0-1 @ 16 gal/ac.

04/28/17 Contractor sprayed field w/Durango @ 16 oz/ac + Spitfire @ 10 oz/ac + Jackhammer @ 2 qt/100 gal.

05/02/17 Field seeded w/JD 30ft. 1890 drill @ 1.3 million seeds/ac + 70 lb/ac 11-52-0.

05/31/17 Contractor sprayed field w/Propimax @ 3 oz/ac + Widematch @ 16 oz/ac + 2,4-D LV6 @ 16 oz/ac + Axial XL @ 16 oz/ac.

08/24/17 Field harvested w/JD and 35 ft. straight head (13.1 bu/ac).

08/29/17 Contractor sprayed field w/Durango @ 32 oz/ac + Spitfire @ (16 oz/ac) + Jackhammer @ 2 qt/100 gal.).

09/19/17 Field seeded to Overland winter wheat @ 1.3 million seeds/ac + 70 lb/ac 11-52-0.

### **FIELD H3 WEST, CROPLAN 432E SUNFLOWERS**

Previous crop – Pioneer soybeans

04/03/17 Contractor banded liquid N 27-0-0-1 @ 16 gal/ac.

05/04/17 Contractor sprayed w/Spartan Charge @ 4 oz/ac + Durango @ 32 oz/ac + Jackhammer @ 2 qt/100 gal.

05/22/17 Field seeded w/JD 1750 MaxEmerge XP planter @ 24,000 seeds/ac.

07/06/17 Contractor sprayed field w/Volunteer @ 7 oz/ac + Trophy Gold @ 1 qt/100 gal.

08/04/17 Contractor aerial sprayed field w/Paradigm @ 4 oz/ac + Trophy Gold @ 2 oz/ac.

10/20/17 Field harvested w/JD 6620 and 15 ft. flex head (2600 lb/ac).

### **FIELD H3 EAST, KOMO BUCKWHEAT**

Previous crop – Pioneer corn

04/03/17 Contractor banded liquid N 27-0-0-1 @ 10 gal/ac.

05/04/17 Field sprayed w/Durango @ 32 oz/ac + Spitfire @ 10 oz/ac + Jackhammer @ 2 qt/100 gal.

06/12/17 Field seeded w/JD 1890 30 ft. drill @ 60 lb/ac + 60 lb/ac 11-52-0.  
07/12/17 Contractor sprayed field w/Volunteer @ 4 oz/ac + Trophy Gold @ 8.5 oz/ac.  
07/15/17 Hail damage.  
09/21/17 Field cut w/Versatile swather (20 ft.).  
10/10/17 Field harvested w/JD 9650 and pickup head (2700 lb/ac, 5 ac on south end had no yield).  
10/17/17 Contractor sprayed w/Durango @ 32 oz/ac + Spitfire @ 16 oz/ac + Jackhammer @ 2 qt/100 gal.

#### **FIELD H4, SOIL QUALITY MANAGEMENT**

See 'Management Strategies for Soil Quality' on Page 55

#### **FIELD H4, MYCOGEN 5B024 SOYBEANS**

Previous crop – Pioneer corn

04/03/17 Contractor banded liquid N 27-0-0-1 @ 10 gal/ac.  
04/28/17 Contractor sprayed field w/Durango @ 16 oz/ac + Spitfire @ 10 oz/ac + Jackhammer @ 2 qt/100 gal.  
05/23/17 Field planted w/JD 1750 MaxEmerge II planter @ 180,000 seeds/ac.  
06/26/17 Sprayed field w/Durango @ 32 oz/ac + Jackhammer @ 2 qt/100 gal.  
10/11/17 Field harvested w/JD 6620 combine and flex head (32.0 bu/ac).

#### **FIELD H4, OVERLAND WINTER WHEAT**

Previous crop – Spring wheat

09/27/16 Field seeded w/Bourgault drill @ 1.3 million seeds/ac + 85 lb/ac 11-52-0.  
04/03/17 Contractor banded liquid N 27-0-0-1 @ 16 gal/ac.  
No post-emergent spray.  
07/17/17 Field harvested w/JD 9650 and 35 ft straight head (31.8 bu/ac).  
08/01/17 Contractor sprayed w/Durango @ 32 oz/ac + Jackhammer @ 2 qt/100 gal.  
08/29/17 Contractor sprayed field w/Durango @ 32 oz/ac + Spitfire @ 16 oz/ac + Jackhammer @ 2 qt/100 gal.

#### **FIELD H4, NETTE PEAS**

Previous crop – Winter wheat

- 04/01/17 Field seeded w/JD750 drill @ 180 lb/ac + 50 lb/ac 11-52-0.
- 08/01/17 Field harvested w/JD 6620 combine and 15ft. flex head (27.0 bu/ac).
- 08/11/17 Contractor sprayed w/Durango @ 32 oz/ac + Detonate @ 8 oz/ac + Class Act @ 2 gal./100 gal.

#### **FIELD H4, MYCOGEN 2R158 CORN**

Previous crop – Nette peas

- 04/03/17 Contractor banded liquid N 27-0-0-1 @ 20 gal/ac.
- 04/28/17 Contractor sprayed field w/Durango @ 16 oz/ac + Spitfire @ 10 oz/ac + Jackhammer @ 2 qt/100 gal.
- 05/17/17 Field planted w/JD MaxEmerge XP planter @ 24,000 seeds/ac.
- 06/26/17 Contractor sprayed field w/Durango @ 32 oz/ac + Status @ 5 oz/ac + Jackhammer @ 2 qt/100 gal.
- 10/24/17 Field harvested w/JD 9650 and 6-row corn head (112.8 bu/ac).

#### **FIELD H5, MYCOGEN 2R158 CORN**

Previous year – Spring wheat

- 04/03/17 Contractor banded liquid N 27-0-0-1 @ 20 gal/ac.
- 05/04/17 Contractor sprayed w/Durango @ 32 oz/ac + Spritfire @ 10 oz/ac + Jackhammer @ 2 qt/100 gal.
- 05/12/17 Field planted w/JD MaxEmerge XP planter @ 24,000 seeds/ac.
- 06/26/17 Contractor sprayed field w/Durango @ 32 oz/ac + Status @ 5 oz/ac + Jackhammer @ 2 qt/100 gal.
- 07/15/17 Hail damage on northern portion.
- 11/13/17 Field harvested w/JD 9650 and 6-row corn head (87.7 bu/ac).

#### **AREA-I FIELD OPERATIONS, NE ¼ Section 20 T138N R81W**

#### **FIELD I1, GLENN SPRING WHEAT (Continuous spring wheat 32 yrs).**

This field will remain as a continuous spring wheat treatment.

04/03/17 Contractor banded liquid N 27-0-0-1 @ 16 gal/ac.

04/28/17 Contractor sprayed field w/Durango @ 16 oz/ac + Spitfire @ 10 oz/ac + Jackhammer @ 2 qt/100 gal.

05/02/17 Field seeded w/JD 30ft. 1890 drill @ 1.3 million seeds/ac + 70 lb/ac 11-52-0.

05/31/17 Contractor sprayed field w/Propimax @ 3 oz/ac + Widematch @ 16 oz/ac + 2,4-D LV6 @ 16 oz/ac + Axial XL @ 16 oz/ac.

08/24/17 Field harvested w/JD 9650 and 35 ft straight header (45.5 bu/ac)

08/29/17 Contractor sprayed field w/Durango @ 32 oz/ac + Spitfire @ 16 oz/ac + Jackhammer @ 2 qt/100 gal.

### **FIELD I2, MYCOGEN 2R158 CORN**

04/03/17 Contractor banded liquid N 27-0-0-1 @ 20 gal/ac.

05/04/17 Contractor sprayed w/Durango @ 32 oz/ac + Spritfire @ 10 oz/ac + Jackhammer @ 2 qt/100 gal.

05/15/17 Field planted w/JD MaxEmerge XP planter @ 24,000 seeds/ac.

06/26/17 Contractor sprayed field w/Durango @ 32 oz/ac + Status @ 5 oz/ac + Jackhammer @ 2 qt/100 gal.

11/02/17 Field harvested w/JD 9650 and 6-row corn head (120.2 bu/ac).

### **FIELD I3, LEGGET OATS**

05/04/17 Contractor sprayed field w/Durango @ 32 oz/ac + Vida @ 2 oz/ac + Jackhammer @ 2 qt/100 gal.

05/09/17 Field seeded w/JD1890 drill @ 96 lb/ac.

07/11/17 Contractor cut and baled field (1000 lb/ac).

08/01/17 Contractor sprayed field w/Durango @ 32 oz/ac + Jackhammer @ 2 qt/100 gal.

08/28/17 Contractor sprayed field w/Durango @ 32 oz/ac + Jackhammer @ 2 qt/100 gal.

### Summary of Area 4 Research Farm yields.

Field	Crop	Variety	Yield (per ac)
F2	Winter wheat	Overland	27.0 bu.
F3	Sunflowers	Croplan 432E	2600 lbs.
F4	Winter wheat	Overland	21.4 bu.
F5	Corn	Mycogen 2R158	78.6 bu.
F6	Sunflower	Croplan 432E	2600 lbs.
G1	Spring wheat	Glenn	15.4 bu.
G2	Spring wheat	Glenn	15.4 bu.
G3	Fallow		---
G4	Spring wheat	Glenn	16.9 bu.
H1	Alfalfa	1 <sup>st</sup> cutting	1.25 tons
		2 <sup>nd</sup> cutting	0.36 tons
		3 <sup>rd</sup> cutting	0.44 tons
H2	Spring wheat	Glenn	13.1 bu.
H3 west	Sunflowers	Croplan 432E	2600 lbs
H3 east	Buckwheat	Komo	2700 lbs.
H4 (a)	Soybeans	Mycogen 5B024	32.0 bu.
H4 (b)	Winter wheat	Overland	31.8 bu.
H4 (c)	Dry Peas	Nette	27.0 bu.
H4 (d)	Corn	Mycogen 2R158	112.8 bu.
H5	Corn	Mycogen 2R158	87.7 bu.
I1	Spring wheat	Glenn	45.5 bu.
I2	Corn	Mycogen 2R158	120.2 bu.
I3	Oats	Legget	1000 lbs.

