

Field Area total
30.3 acres

2019 KBS LTER Main Site

Main Cropping System Experiment

Treatment Key

- T1 Conventional corn/soybean/wheat
 - T2 No-till corn/soybean/wheat
 - T3 Reduced Input corn/soybean/wheat with cover crop
 - T4 Biologically Based corn/soybean/wheat with cover crop
 - T5 Poplar (planted in 2019)
 - T6 Switchgrass (Alfalfa from 1989-2017)
 - T7 Early Successional community
 - T8 Mown Grassland (never tilled) community
- r = replicate number

Microplot Treatment Key

- +/- Nitrogen fertilized
- Tillage (T7)
- Herbicide-free

Subplot Treatment Key

- Prairie strip (4.5 m wide)

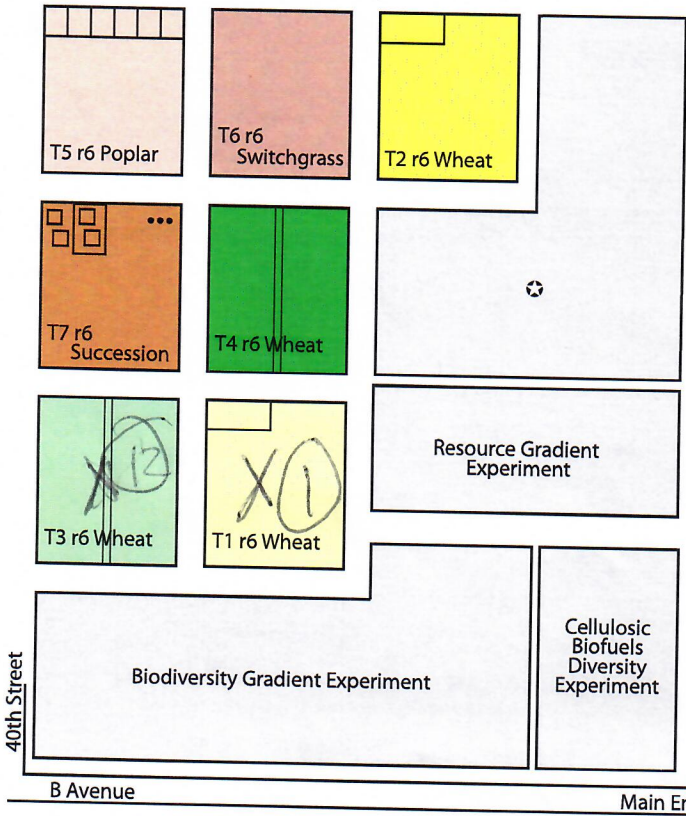
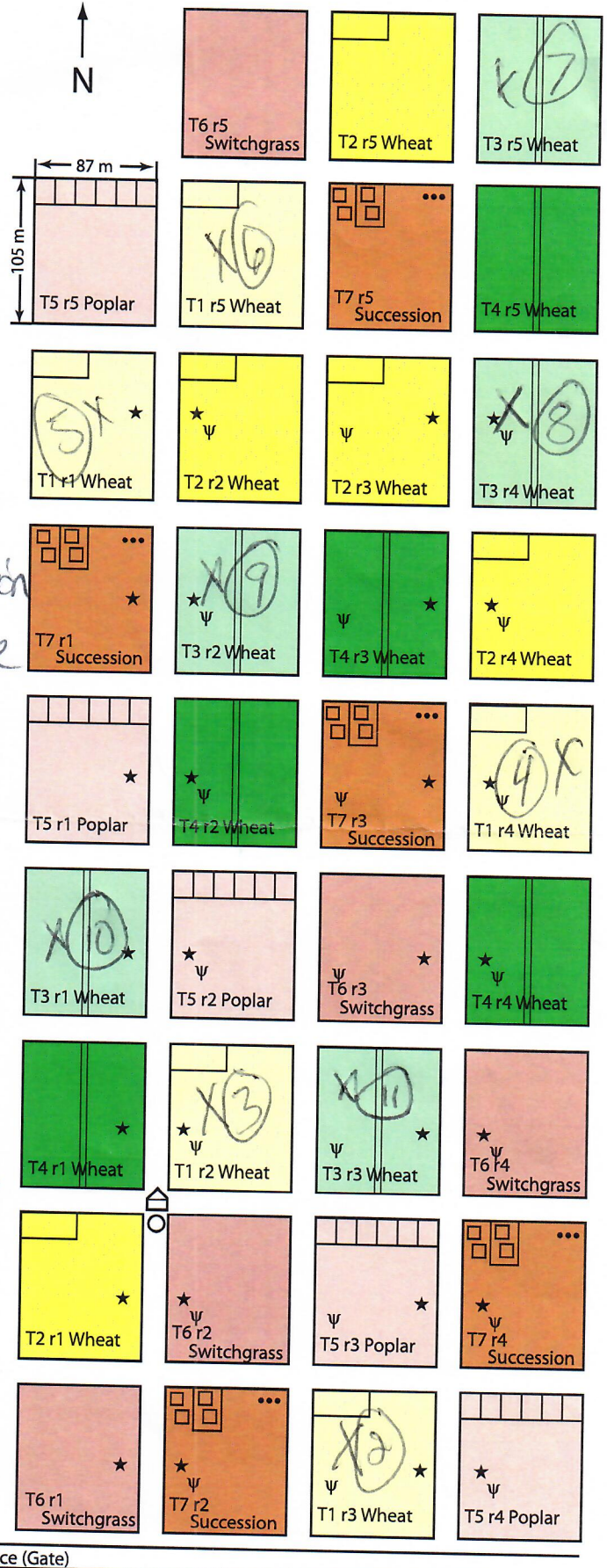
Instrumentation Key

- Minirhizotrons
- ★ Trace gas flux chambers
- ψ Low tension suction lysimeters
- ⊛ Weather station & weighing lysimeter
- ⊠ Trace gas shed
- Wireless tower & sun photometer
- ⊙ Aphid tower

4-16-20
Potash application
100 Pounds/Acre

- Storage & Shop
- Field Lab

T1 + T3 treatments
30.3 total
Acres.



4-16-2020

Potash Gandy Calibration.

target 100 lbs/A

30 ft wide
16 deflectors.
22.5 spacing

5mph miles per hour

5 x 5280 = 26400 feet per hour

26400 ÷ 60 = 440 feet per min

440 ft per min

$$440 \times 30 = 13200 \text{ seft}$$

$$13200 \text{ seft} \div 43560 \text{ Ac seft} = 303030 \text{ A.}$$

$$100 \text{ lbs/A} \times 303030 \text{ A} = 30,303 \text{ lbs.}$$

$$30,303 \text{ lbs} \div 16 = 1,894 \text{ lbs per tube.}$$

→ grams per 1 pound.

$$1,894 \text{ lbs} \times 454 = 859,876$$

860 grams target in 1 min per tube.

~~209~~ Medercal

1.96

1.98

1.96

1.96.

grams in 1 pound

$$\text{Avg } 1.965 \times 454 = 892 \text{ grams.}$$

1.965 lbs per min in one tube

$$1.965 \times 16 = 31.44 \text{ Pounds in 30 ft.}$$

$$31.44 \text{ pounds in 30 feet} \div \text{Acres covered (.303030)} = 103.7 \text{ pounds per acre.}$$