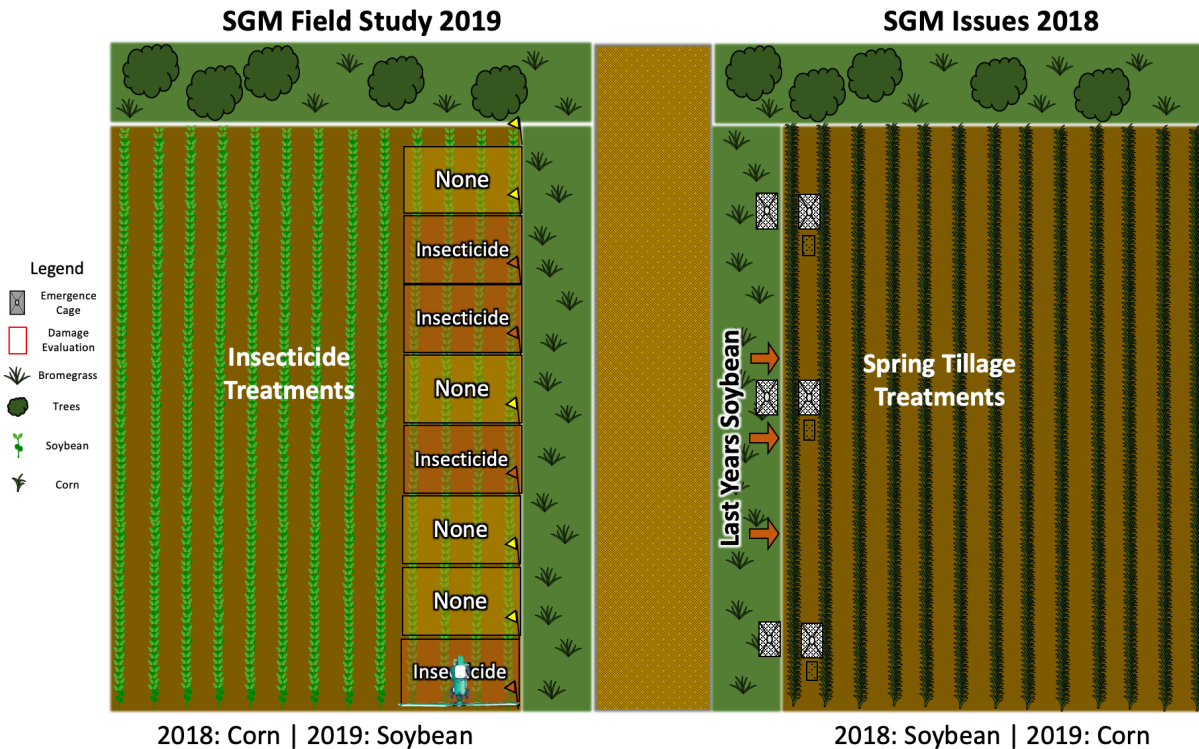# 2019 UNL Soybean Gall Midge On-Farm Research Protocol

Field Design Options

***Plot Width**: depends on equipment used for application, minimum of 10 feet wide, checks should be the same width as other treatments. Minimum length of 30 feet. If harvest is taken with yield monitor, plots should be wider than the combine header and at least 300 ft long.*

SGM Field Study 2019 — Insecticide Treatments | None, Insecticide, Insecticide, None, Insecticide, None, None, Insecticide
2018: Corn | 2019: Soybean

SGM Issues 2018 — Spring Tillage Treatments | Last Years Soybean
2018: Soybean | 2019: Corn

Legend: Emergence Cage, Damage Evaluation, Bromegrass, Trees, Soybean, Corn

Insecticide Timing:

- If you want to apply an ***insecticide based on soybean gall midge adult emergence traps*** please contact Justin McMechan at justin.mcmechan@unl.edu or 402-624-8041 to be added to the alert listserv.

Option 1: On/Off along the edge

Insecticide | None | None | Insecticide | None | Insecticide | Insecticide | None

Last Years Soybean
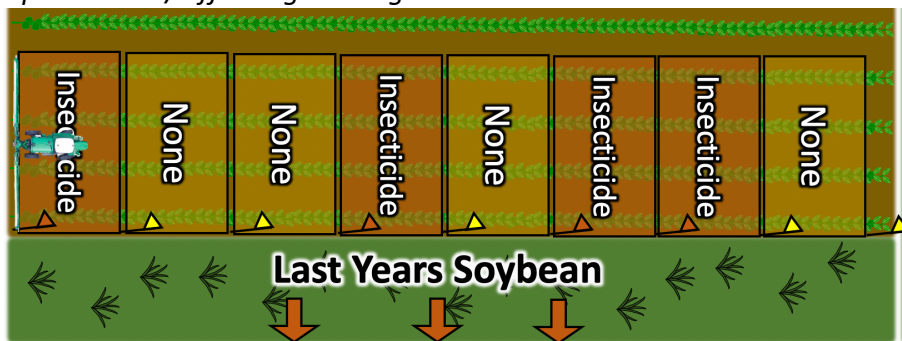
Option 2: Back up to field edge and spray length of field
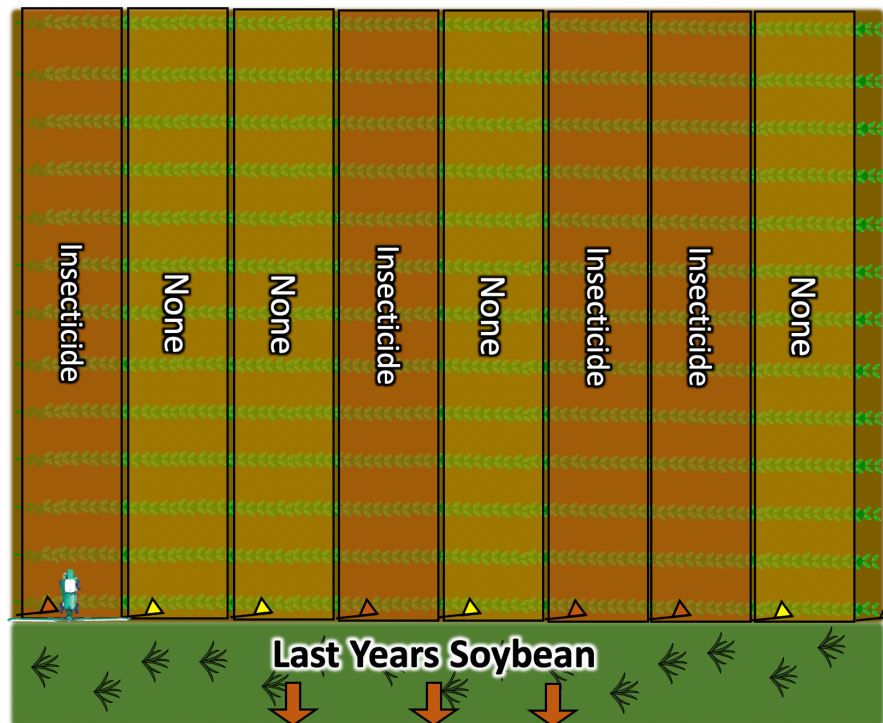
Field Data *(minimum)*
Field Characteristics
- Planting date
- Seeding rate
- Soybean variety
- Historical gall midge pressure in adjacent field
    - 0= no pressure
    - 1= found larvae, no visible signs of damage
    - 2=visible signs of damage at field edge
    - 3=extensive amount of dead plants at field edge
- Seed treatments (Fungicide or Insecticides, product and rate)
- Herbicides (Product, date, and rate)

Study Treatments (Insecticide / Tillage / Variety Testing)
- Product(s) (pesticides, equipment, varieties)
- Date of application (pesticide/tillage)
- Plant stage at application (pesticide)
- Rate (pesticide)

Data Collection (Tier 1: Minimum, Tier 2: Moderate)

- **Tier 1: Minimum**
    - Evaluate each plot for gall midge larvae (20 plants at 3 locations per plot)
        - Response Variable: Uninfested, Infested or Dead
    - Yield data (yield monitor, weigh wagon or hand collected)
- **Tier 2: Moderate**
    - Adult emergence cages placed in last year's soybean field ***Your local extension educator may be able to assist with adult emergence data***
        - Minimum of three cages per site
        - Monitored cages at least once per week
        - Record adult emergence
        - Keep insects in mason jars in freezer for verification (label jars with period of exposure in the field)
    - Evaluate at multiple time points during the season (V5, R1 and R5)
        - 20 plants / 3 locations
        - Response variable (2 options)
            - % of plants infested **and/or**
            - evaluate number of larvae per plant
    - Yield data (yield monitor, weigh wagon or hand collected)