

## **Field Inoculations and Data Collection**

### **Irrigated Nursery**

- 1. Spreading scabby corn inoculum and irrigation setup should occur in the same week, 3 weeks prior to heading of the earliest lines.**
- 2. Scabby corn should be spread at the desired rate with hands. Make sure people are wearing masks and gloves.**
- 3. Perithecia production is expected 3 weeks after spreading in the field.**

### **Non-Irrigated Nursery**

- 1. Scabby corn inoculum should be spread as above, 3 weeks prior to heading of the earliest lines.**
- 2. Conidial spray inoculation:**
  - a. All plants should be sprayed at flowering and one week following (so heading date is very important).**
  - b. Follow the spray protocol modified from Dr. Ruth Dill-Macky's method. (See file Conidial spray inoculation.doc).**

### **Data Collection**

- 1. Heading dates are recorded, usually starting in late April.**
  - a. In the Allegro, record the month-day when 50% of the plot is out of the boot (little or no peduncle showing). You can estimate back using the measure of a thumb width as equal to one day's growth.**
- 2. Scab readings are done 21 days after flowering (24 day post heading).**
  - a. Severity = record the number of diseased spikelets and total spikelets for ten heads showing symptoms (no zeros).**
  - b. Incidence = take a handful of ~20-30 heads in the middle of the plot and record the number of heads showing symptoms and the number of heads total. Try to make sure the sample is representative of the plot.**

- c. **Visual Rating scale (in lieu of detailed readings, devised by NM in 2006):**
  - i. **0 = less than 10% disease in total plot**
  - ii. **1 = 10-25% total disease**
  - iii. **2 = 26-50% total disease**
  - iv. **3 = 51-75% total disease**
  - v. **4 = 76-90% total disease**
  - vi. **5 = greater than 90% disease**
  - vii. **6 = 100% disease**
- d. **Alternate visual rating:**
  - i. **1 = good**
  - ii. **2 = moderate**
  - iii. **3 = bad**