

Neonicotinoid Seed Treatment Efficacy Study On-Farm Corn Trials – 2014

Objectives:

- To determine the key early season pests and develop risk maps for Ontario corn producers
- To measure the economic impact of neonicotinoid seed treatments on corn for early season pest control

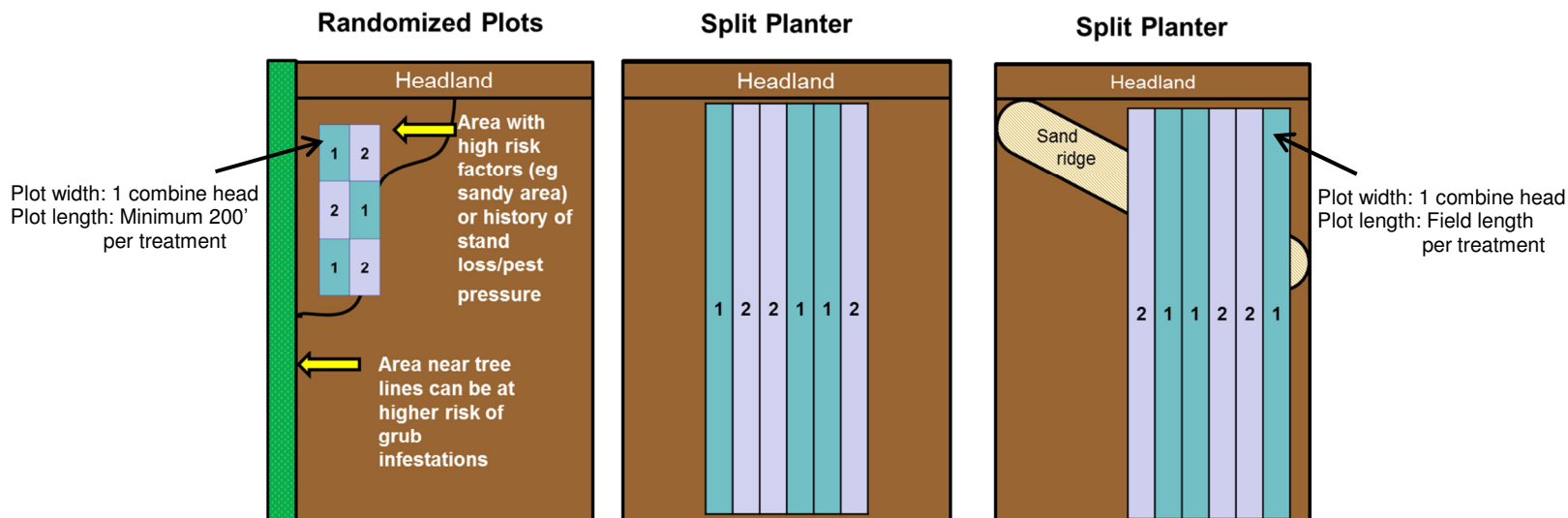
Study Design:

- Looking for **100** on-farm, corn sites
- Each trial contains at least **6 plots** (2 treatments using the same hybrid and seed lot repeated **3** times)
 - Trt 1: Fungicide-only
 - Trt 2: Fungicide + Neonicotinoid (eg. Poncho or Cruiser)
- Trial planted and harvested by OSCIA members
- Planter type does not matter
- Early season assessments done by UGRC/OMAF – 2 early season field visits will be completed
 - Plant stand & vigour
 - Soil sample/Crop History/GPS
 - Yield data to be collected by OSCIA members (dry bu/ac)
 - Measured using calibrated yield monitor or weigh wagon
 - Submit yield results to jocelyn.smith@uoguelph.ca within 2 weeks of harvest
 - Pest presence/identification
 - Crop pest damage rating

Site Locations:

- Trials do not have to be in fields of high risk or significant pest pressure, plot needs to be planted where pest risk is most likely to occur within field, for example:
 - sand or silt fields, especially sandy knolls and along tree lines
 - spots with history of poor emergence due to pests
 - grassy weeds or frequent grass crop rotations (cereals, corn)
 - following a cover crop or annual weeds in spring (eg. chickweed)
 - no-till
 - freshly tilled soil with heavy crop residue, recently applied manure, green manure plow down

Example Planting Configurations:



Plant trial in an area of potential pest pressure

1	= Fungicide-only seed trmt
2	= Fungicide + Neonicotinoid seed trmt

OMAF and UoG staff will carry the following checklist when making the first field visit to determine if the site is suitable to be included in the study.

- Directions, field map and accurate record of planting
- Fungicide only and insecticide treated seed of same hybrid
- Both planted same day with same planter and operator
- 3 replications, following a randomized scheme or using split-planter configuration
- Plot corners clearly marked and of minimum size
- Plots not planted in a headland
- Plot located in highest pest risk area of field

**NOTE: Should any one of these items fail then the site will be excluded.
Top quality, accurate data are required and poor quality data will harm the objectives.**

To Participate In This Study:

- Identify an appropriate field location.
- Contact your local seed supplier as soon as possible to determine the availability of insecticide treated and fungicide only treated seed of the same corn hybrid for your maturity area.
- If insecticide treated and fungicide only treated seed of the same hybrid is not available from your preferred supplier, check with other seed suppliers in your area or contact the project lead for indications of where both versions of the same hybrid may be available.
- Contact Jocelyn Smith to register your field location: jocelyn.smith@uoguelph.ca

THANK YOU for your participation and attention to detail in this very important study.

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