Evaluation of Commercial seed treatments on Soybean at Three Locations in Iowa in 2014

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Abstract
With funding provided from Iowa Soybean Association, 15 current commercial seed treatments from 8 companies were tested at 3 locations in Iowa: ISU Northeast Research and Demonstration Farm (NERF) near Nashua; ISU Southeast Research and Demonstration Farm (SERF) near Crawfordsville, and a farmer's field in Roland (central Iowa). According to recommended maturity groups, public variety IA2094 was planted in Nashua and IA3014 was planted in Roland and Crawfordsville. Replicated plots of 10 feet wide by 17.5 feet long were planted at each location. Seed treatments were professionally applied by the respective companies.

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Evaluation of Commercial seed treatments on Soybean at Three Locations in Iowa in 2014

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With funding provided from Iowa Soybean Association, 15 current commercial seed treatments from 8 companies were tested at 3 locations in Iowa: ISU Northeast Research and Demonstration Farm (NERF) near Nashua; ISU Southeast Research and Demonstration Farm (SERF) near Crawfordsville, and a farmer’s field in Roland (central Iowa). According to recommended maturity groups, public variety IA2094 was planted in Nashua and IA3014 was planted in Roland and Crawfordsville. Replicated plots of 10 feet wide by 17.5 feet long were planted at each location. Seed treatments were professionally applied by the respective companies.

Results

- Planting dates are shown in Table 1.
- Soil temperatures at planting were relatively warm (>15°C (59°F)) except for a few days soon after planting at Roland when temperatures dropped to 10°C (55°F) at Roland (Figure 1).
- No effect of seed treatments on stand count or yield was detected at any location (P<0.1) (Table 2, Table 3).
- The heavy rainfalls observed in June could increase the severity of SDS in the trial at Roland. None of the treatments showed efficacy for control of SDS (Table 5, Figure 2).
- No differences in soybean cyst nematode (SCN) count at planting, 45 days after planting and after harvest were observed between untreated control and nematicide seed treatments. This may be attributed to low initial SCN counts, thus an effect of the nematicide treatments was difficult to detect (Table 4).
- Seed treatment trials with commercial seed treatments will be repeated in 2015. All effort will be made to plant the trials earlier (April 15 – 25) in an effort to test the effect of seed treatment on early stand count and yield when soil temperatures are cooler.

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