Corn Tour Featured At Hughesville

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In both the higher population and narrower rows situation, machinery maintenance is very important, the machines must be working efficiently to benefit from the higher yield.

In planting narrower rows, 15 to 20 inches, there may be a 5-7% advantage. It is reported in the Midwest, by going from 30 inch rows, to 20 inch rows, they received a 5% yield increase. It was due to a more evenly spaced plant population.

There are some drawbacks to narrower rows, as in higher populations, weed control can be a problem, but the biggest problem arises with the fact that most of the machinery is not set up to handle narrower rows, which makes harvesting a problem.

In making corn silage, the narrower spaced rows are used in European countries, where they have developed machinery that can handle the narrower spacing, their machinery can even cut across the rows.

At this site, uniformity must be considered in evaluating the corn stand. Two plots were planted, each having 27,000 ppa, one stand was uniform, and the other a non uniform stand. Standard deviation, or difference in the distance between plants is used to rate the uniformity of the stand. To find this, you measure the spacings of 30 consecutive plants, this is how many inches oetween each of the corn plants, then find the average. This should be repeated 4 to 6 times. A rating of 3 inches or less is ideal, 5 is acceptable, and above 5 indicates a probtem. Research has shown that for every unit, or inch increase in this system, the yield is reduced 2 to 4 bushels.

Pest Scouting in Corn and Beans was discussed by Dave Messersmith from West Branch Crop Management Assn. He showed some Western Corn Root Worm beetles that he had found on the corn plants, but mentioned that it was a little early for the beetles to be at peak amounts. The beetles like the corn silk, but can be found all over the corn plant. The way to determine if there is a pest problem is to count the number of beetles per corn plant, using 22 plant samples. If there is an average of above 1.5, there is a problem. In previous years, some fields have had extreme problems, where insecticides had to be applied by air. The main pur-



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Bill Curran, Penn State, on herbicides

pose of determing to what extent the beetle problem is in the area, is to handle the problem for the preceding year.

Doug Beegle also from Penn State, continued the tour with his session on Nitrogen Test and Rates. In studies conducted regarding nitrogen, it was found that the nitrogen should be applied just before the period of maximum demand, this will improve the efficiency of the fertilizer. The use of the Presidedress Soil Nitrogen Test (PSNT) can also be used with the delayed application of nitrogen. The PSNT measures the amount of nitrogen available from manure. To perform the PSNT, Limit spring nitrogen fertilizer; apply manure based on crop requirements; sample fields when com is 12 inches tall; take 10-20 cores,

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