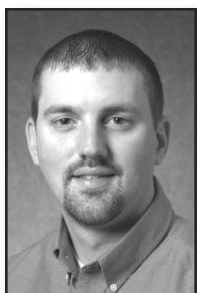


# Pioneer Talks

Welcome to Pioneer Talks Crops. This information is provided by the Pioneer agronomist serving your community.



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**P**lan to get nitrogen (N) out on time. Corn planted now, or just recently, will grow much faster than earlier-planted corn. A field of foot-tall corn will not be far from rapid nitrogen uptake. N deficiency during this stage will reduce the number of rows of kernels per ear, thus reducing yield. The table below shows corn will take up 40 percent of its N requirement within

V2 to V3 growth stage (four to five leaves showing), or about 6 to 8 inches tall. Severe weed pressure during this period, especially from grasses, can significantly impact corn yield potential. If either excessive or insufficient rainfall raises concerns about the performance of soil-applied herbicides, scout cornfields regularly to determine if weeds are “breaking through” and beginning to grow normally. Usually, the most reliable and effective herbicide program across a wide range of conditions is a preemergence followed by a postemergence herbicide. Most postemergence herbicides have height or collar restrictions. Be sure to count

**Percent Nutrient Uptake**

	First 25 days	Second 25 days	Third 25 days	Fourth 25 days	Last 25 days	Total lbs. uptake
<b>N</b>	8	35	31	20	6	240
<b>P205</b>	4	27	36	25	8	100
<b>K20</b>	9	44	31	14	2	240

(Source: Potash/Phosphate Institute)

the first 50 days after emergence. This table shows N, P and K uptake for 180 bushels per acre of corn. You can modify this for your particular yield levels. Consider applying 40 to 60 units of your N pretassel on a portion of your irrigated acres.

The table above illustrates the rapid utilization of N. We highly recommend side-dressed N be applied by the six-leaf stage. Many producers will begin application at the four-leaf stage to avoid application delays due to weather. UAN solution (32 percent N) knifed is an excellent N source. Where the soil is crusted and dry, granular urea is also a good source of N. If residue is present on the soil surface and/or the soil surface is moist, granular urea treated with a urease inhibitor (AGROTAIN®) can reduce ammonia volatilization for seven to 10 days. Thus rainfall or irrigation can transport the urea molecule into the soil where it will be protected from N loss.

**Herbicide timing in corn production** also is very important. Weeds need to be controlled in the three to five weeks after planting to prevent competition. This is when corn is in the

leaf collars on several plants in the field to determine the correct growth stage for herbicide timing.

**High soybean yields** start with strong fertility. Soybeans need a significant amount of potassium (K). A 60-bushel-per-acre soybean crop will utilize 320 pounds of nitrogen, 64 pounds of phosphorus, 142 pounds of potassium, 27 pounds of magnesium and 25 pounds of sulfur. Some of this will return to the soil in the stover, but it is important to note that high yields require a lot of good plant food. When K in the topsoil is deficient, soybean plants will try to obtain their K needs from the subsoil (only as adult plants). Potassium deficiency first appears as white speckling of the leaves. Later, interveinal chlorosis will occur near the leaf margins. Finally, chlorosis and necrosis (dead tissue) will be visible along the outer leaf margins. The deficiency symptoms appear on mature leaves first, while young leaves often are symptom-free. Potassium deficiency may occur when soil K levels are low, when pH is very low, when root restriction occurs or when nematodes are a problem. Δ



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