Get the most out of your corn crop

Farmers have had a few days in the past week to begin planting. Grain prices are still predicted to be low this year, so farmers have to look closely at their management practices to get the most yield with the least amount of input costs.

Dr. Peter Thomison, Ohio State University Extension corn specialist, has compiled a list of practices that farmers may use to increase corn yields and reduce input costs:

1. Match management practices to the individual field based on soil type, yield history and yield potential.

2. Select high-yielding, adapted hybrids. Pick hybrids that have produced consistently high yields across a number of locations or years. Select hybrids with high ratings for resistance to foliar and stalk rot diseases when planting no-till or with reduced tillage. Select high-yielding Bt rootworm-resistant hybrids for fields that have a history of western corn rootworm damage.

3. Follow pest management practices that will provide effective and timely pest control — especially weeds.

4. Aim to complete corn planting by May 10. If soil conditions are dry, begin planting before the optimum date but avoid early planting on poorly drained soils. If planting is delayed until late May, select corn borer-resistant Bt hybrids.

5. Follow practices that will enhance stand establishment. Adjust seeding depth according to soil conditions and monitor planting depth periodically during the planting operation and adjust for varying soil conditions. Seeding depth should be at least 1½ inches for proper root development.

Make sure the planter is in good working order. Inspect and adjust the planter to improve stand establishment. Operate planters at speeds that will optimize seed placement. Uneven emergence affects crop performance because late-emerging plants cannot compete with larger, early-emerging plants.

6. Follow appropriate seeding rate recommendations. Final plant populations of 31,000-33,000 plants per acre are adequate for most environments. However, for low yielding or dry spells, final populations of 23,000-24,000 plants per acre are usually suitable.

7. Supply the most economical rate of nitrogen. Ohio State University recommends nitrogen rates have been updated and may be found at http://cncr.agron.iastate.edu. The data and rate model are housed on Iowa State’s site, but selecting the Ohio tab will select data only collected from Ohio.

Consider split applications of nitrogen and using an application method that will minimize loss, such as fertilizer incorporation/injection and nitrogen stabilizers. This is especially true if using urea-ammonium nitrate (28 percent).

8. Utilize soil testing before adding lime, and to know the correct rate of phosphorus and potassium fertilizer. Avoid applications of additional phosphorus and potassium fertilizer if soil test values are adequate.

9. Perform tillage operations only when necessary and under proper soil conditions. Deep tillage should only be performed when a compacted zone is detected and soil conditions are dry (usually late summer).

10. Minimize equipment traffic over fields. Potential for soil compaction increases with large field equipment. Use controlled traffic (driving over same tire tracks for field operations) to compromise only a small percentage of the field. Avoiding soil compaction is a long-term management strategy for productivity.

11. Take advantage of crop rotation — corn grown after soybeans will typically yield 10 to 15 percent more than corn grown after corn.

12. Monitor fields and troubleshoot yield-limiting factors, such as diseases and insects, throughout the season.

As you watch farmers plant over the next few weeks, see if you can identify any of these practices they are using to increase yields and lower costs.

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