



Managing corn rootworm diapause

Overview

Northern corn rootworm (NCRW), one of the most damaging corn pests, has traditionally been managed through crop rotation. Unfortunately, some populations of NCRW have adapted to this strategy and developed a longer life cycle (extended diapause). NCRW poses a challenge, but adjusting management practices and scouting fields can help reduce damage.

What you should know

- With extended diapause, NCRW eggs remain dormant in the soil for almost two years before hatching. Some research has found eggs can even remain dormant up to three years.
- NCRW extended diapause has traditionally been a problem in parts of northwest Iowa, southwest Minnesota, northeast Nebraska and southeast South Dakota, but it has also been found in other parts of the Corn Belt.
- Although extended diapause has been around for decades, the number of eggs remaining dormant continues to increase. When the issue was first discovered, less than 5 percent of eggs had hatching delays. Now, almost 50 percent of eggs can remain dormant.

Action steps

1. **Prioritize scouting:** Scouting is one of the key management tools for identifying extended diapause. In first-year corn, scout for the presence of adult beetles at pollination. If adult beetles are found, dig up the plants and inspect the roots for pruning or injury. At harvest time, investigate a root-lodged crop and look for pruned roots.
2. **Review management options:** Extended diapauses are unpredictable, making them difficult to manage. Control larvae with granular insecticides and consider hybrids with in-plant insect control traits.



Roots on the left show damage from Northern corn rootworm (NCRW), compared with healthy roots on the right.



30-Second Summary

- In some regions, the NCRW has adapted to traditional crop rotation management practices.
- In these cases, NCRW go into extended diapause, with eggs remaining dormant in the soil for two years or more.
- Adjusting management practices, scouting fields and identifying extended diapause history can reduce damage risk from NCRW.

NOTES:

For more information, contact:



www.nutechseed.com
1-888-647-3478