

Penn State **Extension**

Cover Crop Interseeder and Applicator

The Penn State Cover Crop Interseeder and Applicator was designed to help establish cover crops in areas where cover crop establishment is not that feasible because of a late harvest and short season.

[Technology](#)

[<http://extension.psu.edu/plants/crops/soil-management/cover-crops/interseeder-applicator/technology>]

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[Opportunities with Interseeding](#)

[<http://extension.psu.edu/plants/crops/soil-management/cover-crops/interseeder-applicator/opportunities-with-interseeding>]

[Challenges](#) [<http://extension.psu.edu/plants/crops/soil-management/cover-crops/interseeder-applicator/challenges>]

[2011 Field Trial Results](#) [<http://extension.psu.edu/plants/crops/soil-management/cover-crops/interseeder-applicator/2011>]

[2012 Field Trial Results](#) [<http://extension.psu.edu/plants/crops/soil-management/cover-crops/interseeder-applicator/2012>]

[References](#) [<http://extension.psu.edu/plants/crops/soil-management/cover-crops/interseeder-applicator/references>]

[Brochure](#) [<http://extension.psu.edu/plants/crops/soil-management/cover-crops/interseeder-applicator/brochure/view>]

[Contacts](#) [<http://extension.psu.edu/plants/crops/soil-management/cover-crops/interseeder-applicator/contacts-1>]



[http://extension.psu.edu/plants/crops/soil-management/cover-crops/interseeder-applicator/leadImage_galleryzoom]

Figure 1. The Penn State Cover Crop Interseeder and Applicator. (Photo: Patrick Mansell)

With this system, cover crops are interseeded early in the season but provide minimal competition to the corn. The interseeder is designed to be able to apply sidedress N fertilizer and a postemergent herbicide while seeding the cover crop, eliminating the need for additional trips across

the field and reducing the cost of seeding the cover crop. Read our notes below for more on the benefits of cover crops and the rationale behind the concept of interseeding.

Cover crops can play many important roles in cropping systems that are well recognized: preventing soil erosion, enhancing soil carbon, reducing drought stress, suppressing weeds, minimizing nutrient runoff and providing supplemental forage. Despite these advantages, the establishment of cover crops is often limited by the late fall harvest of the corn or other crops, which leaves little growing season for a functional cover crop to become established. The cost of cover crop seeding can also be an issue with the expense of an added trip across the field and seed costs keeping some crop producers from using the practice.

With increasing needs to limit nutrient runoff and leaching into the Chesapeake Bay watershed, a growing desire to harvest corn stover, and an increasing need to develop strategies for increasing forage production on livestock farms, there is a critical need to develop technologies that overcome the issues with cover crop establishment in corn in our region.

Conclusion

With the development of the new machine, interseeding has considerable potential to help continue to improve the sustainability of corn production by promoting cover crops, sidedress N applications, post emergent herbicide applications, and no-till crop production while reducing runoff. It could also increase the productivity of our crop production systems by allowing us to utilize more of the stover or by producing forages on some of the land dedicated to corn grain production. Many issues remain to be evaluated to maximize the potential of this system, however. In the future, it will be necessary to carefully evaluate these issues as this technology is developed.

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