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Converting Your Planter for No-till Operation

H. Mark Hanna

Iowa State University, hmhanna@iastate.edu

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Abstract
A few pointers will help adjust a planter for no-till farming systems. Instructions for getting optimum results from your planter in a no-till system are contained on a DVD created by members of the Iowa Learning Farm team. The DVD is available from the Iowa Learning Farm for free and can also be seen on YouTube in a series of videos.

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Converting Your Planter for No-till Operation

By Mark Hanna, Department of Agricultural and Biosystems Engineering

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A planter must accomplish three key responsibilities in a no-till system: planting seed at a uniform depth, closing the furrow so that the seed is in proper contact with soil to start germination and maintaining uniform seed spacing.

Hanna walks viewers through a few planter adjustments on Iowa Learning Farm DVD and videos.

The DVD and videos offer tips and simple checks for successful planting on two different planter configurations, depending on the style of implement. There are tips on leveling the planter frame, down pressure on depth gauge wheels, adjustments of seed openers and closing systems, and use of attachments such as row cleaners and fertilizer injectors.
In a no-till situation, the planter is the key to successful no-till. It is the only time you have to move the soil to get the seed established. So treating the planter with respect and paying attention to some finer adjustments can really have big dividends.

In a no-till system, the soil is not disturbed before planting, except for perhaps injecting fertilizer. A coulter or disk seed-furrower opens a narrow strip for planting. Other tillage is eliminated entirely and residue from the previous crop year remains on the soil’s surface. No-till has many benefits including improved soil productivity, increased organic matter and improved water infiltration. This system conserves energy by reducing passes across the field and improves soil tilth and soil organic matter. It also can reduce the capital costs associated with equipment used in conventional tillage.

The planter DVD is available at no charge by emailing the Iowa Learning Farm at ilf@iastate.edu, and be sure to include a mailing address; or write to Iowa Learning Farm, 2101 Agronomy Hall, Iowa State University, Ames, IA 50011. The same information is available on YouTube in a series of video segments.

Mark Hanna is an extension agricultural engineer in agricultural and biosystems engineering with responsibilities in field machinery.

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