

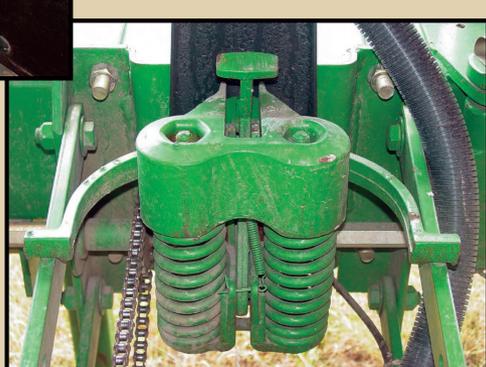
# Conservation Agriculture

## Modifying Planters for High-Residue Systems



### Down-Pressure Springs

Prevents excessive bouncing of planter units in heavy residue and uneven soil conditions to maintain desired seeding depth.



### Row Cleaners

Various manufacturers, configurations, and methods of adjustments.

Help level seedbed and move residue away from seed trench to prevent *hairpinning*, which decreases seed emergence.

When set too aggressively, digs out seed bed and promotes weed seed germination in the row.



Martin



Dawn



Yetter



### Notched Opening Disks / Seed Firmers

*Notched opening disks* cut residue not removed by row cleaners to prevent hairpinning.



*Seed firmers* ensure good seed-to-soil contact and prevent seed from bouncing out of the seed trench when planting shallow (i.e. cotton) in high residue or uneven soil conditions.

### Spoke Closing Wheels

Beneficial for heavy, wet soils to prevent surface sealing (crusting) following planting.

Use caution when planting shallow. May kick seed on top of ground. Option – use only one per row to minimize this problem.



Equipment Option	----- Price -----	
	Low-end	High-end
	----- \$/row -----	
Down pressure springs*	38	-----
Row cleaners*	222 (Martin)	459 (Dawn)
Spoke closing wheels*	96	192
V-slice inserts	16	35
Notched disc openers	110	-----
Seed firmer	25	-----

\* Highly recommended  
Prices current as of 9-15-05



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Conservation Systems Research



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