

## Crop Production

# Figuring out the cost of overlap

By WILLIE VOGT

**P**RECISION steering of equipment can help an operator overcome a key issue: overlap.

Even the best operator is probably adding a margin for safety with a machine during both tillage and spraying operations.

Shaun Glinge and his father, Randy,

Overlap can add up fast							
Overlap (feet)	Effective seeder width (feet)	Number of passes	Length of travel subtracting two headland passes	Area overlapped in headlands (square feet)	Area overlapped in remainder of the field (square feet)	Total area overlapped (square feet)	Total area overlapped (acres)
0	55	48	2,420	0	0	0	0
1	54	49	2,424	5,280	116,352	121,632	2.8
2	53	50	2,428	10,560	237,944	248,504	5.7
3	52	51	2,432	15,840	364,800	380,640	8.7
4	51	52	2,436	21,120	496,944	518,064	11.9
5	50	53	2,440	26,400	634,400	660,800	15.2

**LITTLE BECOMES A LOT:** This chart shows how a little overlap with a big seeder can add extra acres pretty quickly in a quarter-section.

using a lightbar, know they're covering their fields more efficiently.

But is reducing overlap really a money-saver? New work that's coming out of Canada on similar cropping systems shows that cutting overlap even a bit can put more money in your wallet.

The Ag Tech Centre in Lethbridge, Alberta, has studied the issue and found even a 1-foot overlap on a seeder can add up pretty fast in seed costs and time.

Using the quarter-section as a model, the data shows that a 55-foot seeder on a quarter-section would make 48 passes (they account for headland turns) with zero overlap.

But if the overlap is as little as 2 feet, you add two more passes and add about 10,000 square feet of overlap in the headlands — and as much as 237,000 square feet (almost 6 acres) of overlap for the section.

If a producer is adding on nearly 6 acres of application to a quarter-section of work, that can add up in time or seed. For example, in the Canada research, that 2 feet of overlap when planting durum wheat (and this depends on the cost of the seed in your area) could cost as much as \$390 in that quarter-section.

While the costs would be different in corn and soybeans, where planter overlap doesn't occur in the same manner, consider the savings in sprayer operation.

Interestingly, that extra overlap — in a quarter-section, for example — could take an extra pass with the sprayer, which adds time to the work completed and may require an extra fill in the course of a day.

Those costs can add up fast.

## Putting WAAS to work

The GreenStar lightbar and StarFire 300 GPS receiver the Glingles used this season provided them with the ability to do a better job of staying on track when tilling and spraying.

The system uses the Wide Area Augmentation System for correction. Accurate to within 13 inches, WAAS provides a dependable, free signal that farmers are able to use for parallel tracking with manual steering.

For the Glingles, Shaun says he was covering ground more efficiently using the lightbar. And Randy agrees, noting that operating the machine with a lightbar made driving it easier.



**JOHN DEERE**

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