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MINIMIZING HARVEST LOSSES IN CORN AND SOYBEANS

As a combine operator, do you know how many bushels you're leaving behind in your fields? Although corn and soybean harvest can be a hectic time of the year, it is critical that each cooperators estimate these potential harvest losses and take time to make necessary adjustments to your harvest timing and combine when needed. Every bushel of corn or soybeans physically left behind by the combine represents a loss in potential profits. While harvest losses cannot be completely eliminated, harvesting at the right moistures, along with the appropriate combine adjustments may reduce loss to a 1-2 bushel per acre range.



PVC square for estimating harvest loss. Inside dimensions are 1' by 1'.

DETERMINING SOYBEAN HARVEST LOSS

When determining soybean harvest loss, count the number of soybeans on the ground inside a 1 foot square. Replicate this process several times throughout the field to determine the average soybeans lost per square foot. **Four soybeans per square foot on the ground is equivalent to a one bushel per acre yield reduction.** Careful combine maintenance can greatly minimize potential soybean yield loss. Most soybean harvest loss occurs at the gathering unit of the combine between the header and the standing soybean plants. This loss is most often due to pod shatter. Soybeans lost to shattering may be reduced by harvesting soybeans as quickly as possible when grain moistures reach 13% to 14%. The combine ground speed should be reduced to 3 mph or less, and the reels should be operating at 25% faster than the ground speed.

DETERMINING CORN HARVEST LOSS

One source of yield loss in corn is due to dropped ears prior to harvest. Determine the total ear loss by counting the number of dropped ears in an area equivalent to 1/100th of an acre. When planting in 30" rows and harvesting 6 rows at a time, 1/100th of an acre sample would utilize 29 feet of the rows. When harvesting 8 rows at a time, you would utilize 22 feet of row for a 1/100th acre sample. **Each full size dropped ear in your sample area would represent a one bushel per acre yield loss.**





To determine corn yield loss from scattered kernels on the ground and from kernels still attached to the combined cobs, utilize the same one foot square used in the soybean example. Count the number of lost corn kernels within the one foot square. Replicate this process several times throughout the field to obtain an average lost kernel count. **Every two kernels of corn that are left on the ground represents one bushel per acre yield reduction.** Proper combine settings will allow you to maximize income by reducing harvest losses, as well as reducing the volunteer corn issues that could be experienced the following year. Ear losses can be minimized by setting the snapping rolls to fit the stalk width, and running the snapping rolls at the same speed as the ground speed. Cylinder or rotor speed can be adjusted to minimize threshing losses and kernel damage. Combine settings and fan speeds should be adjusted whenever combining stressed plants that have produced lighter kernels weights.

GET THE MOST FROM YOUR YIELDS!

Each harvest season, producers need to be aware of the potential yield losses from their corn and soybean crops and make the appropriate necessary combine adjustments. An understanding of your corn's stalk integrity across fields is crucial in determining a profitable harvest schedule while minimizing harvest losses. While some grain loss is to be expected during harvest, mechanical losses should be kept to a minimum. Being mindful of the grain left behind the combine is the key to making the adjustments needed to maximize overall yield potential.

Additional Reference:

[Purdue Extension, Corny News Network](#)

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