



Dry Matter Loss

Overview

It is possible to lose grain dry matter during drydown after corn has reached maturity. Contrary to some studies, dry matter losses after blacklayer are not overwhelming. However, growers should carefully manage their corn harvest timing to minimize loss altogether.

What you should know

- Blacklayer, or physiological maturity, occurs 55–65 days after silking, or about 20 days after denting. Kernel dry weight usually reaches its maximum at blacklayer.
- Kernel grain moisture at blacklayer stage averages 30%, but can range from 25–40%.
- In trials, corn at temperatures of 75–85°F showed a 1% dry matter loss after 10 days. With harvest temperatures likely to be around 60°F, it could take up to 50 days to realize a 1% dry matter loss.
- Harvesting at optimum moisture levels will minimize dry matter losses and kernel damage.
- Considerations that drive harvest schedules vary among hybrids and fields. Factors that can increase harvest losses include stalk quality and ear retention.
- Storage environment is of little significance to dry matter loss.

Action steps

1. **Determine crop development stage:** Blacklayer maturity occurs 55–65 days after silking.
2. **Monitor soil moisture levels and respiration rates:** Respiration rates are highest when corn is around 50% moisture, which is before it reaches its full yield potential.
3. **Harvest at optimum moisture:** Harvesting at optimum moisture levels, rather than calendar dates, will reduce field losses and kernel damage. In general, 20–25% moisture is considered optimum for corn harvest.



Harvest corn at optimum moisture levels to avoid dry matter loss.



30-Second Summary

- Blacklayer occurs 55–65 days after silking. Wait until corn reaches maturity to harvest.
- Harvest when corn is at 20–25% moisture to minimize dry matter yield losses.
- The storage environment has little impact on dry matter loss.

NOTES:

For more information, contact:



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