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Does Corn Lose Drymatter After Physiological Maturity? No

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Abstract

Iowa's corn this year reached dent (RS) development stage on pace with that of 2010, but well ahead of normal. Some combines are rolling across Iowa's 14 million plus acres of corn; others will roll soon. Harvest begins. Fall approaches.

Keywords

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Does Corn Lose Drymatter After Physiological Maturity? No

By Roger Elmore, Department of Agronomy

Iowa's corn this year reached dent (R5) development stage on pace with that of 2010, but well ahead of normal ([see NASS report](#)). Some combines are rolling across Iowa's 14 million plus acres of corn; others will roll soon. Harvest begins. Fall approaches.

It seems like every year at this time – just like the onset of harvest and changing of the seasons – the question posed in the title of this article resurfaces; it doesn't change. Neither does the answer.

Several years ago, 1995 to be exact, widely circulated reports in popular farm press suggested that corn dry matter decreases after R6 (physiological maturity) during drydown. That work was never published in scientific literature.

A colleague and I in Nebraska compared several hybrids in three years with different drying environments each year and with different harvesting techniques. Grain weights, i.e. dry matter, were stable in all environments following maturity. It was clear: grain does not lose drymatter during in-field drydown. For more information on this, see the [extension publication, "Corn grain yield and kernel weight stability after black layer," referenced below](#).

As grain dries in fields after reaching black layer, monitor individual fields and hybrids for grain moisture, stalk quality and ear retention. You can lose yield to ear drop and kernels shelled out onto the soil during harvest. Schedule harvest based on these variables.

Reference

Regarding drymatter stability: "Corn grain yield and kernel weight stability after black layer" on [ISU corn web page](#).

Additional related references:

- [Harvest update – It's that time again](#) (2011, Charles Hurburgh)
- [Harvest tips for lodged corn](#) (2011, Mark Hanna)
- [In-field drydown rates and harvest](#) (2010, Elmore and Abendroth)

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