Corn Ethylene Management Study – 2009

Planted:	May 25, 2009	**Previous Crop:**	Soybeans
Harvested:	November 3, 2009	**Tillage:**	Chisel / Field Cultivator
Rows:	Eight 30” rows	**Herbicide:**	4 pts. Guardsman Max
Seeding Rate:	34,500 seeds/A.		32 oz. Glyphos Extra
Replications:	Three (averaged)	**Product Tested:**	BECK 5779VT3

RAINFALL	
April	10.0 in.
May	4.9 in.
June	4.6 in.
July	4.0 in.
August	3.6 in.
Total	27.1 in.

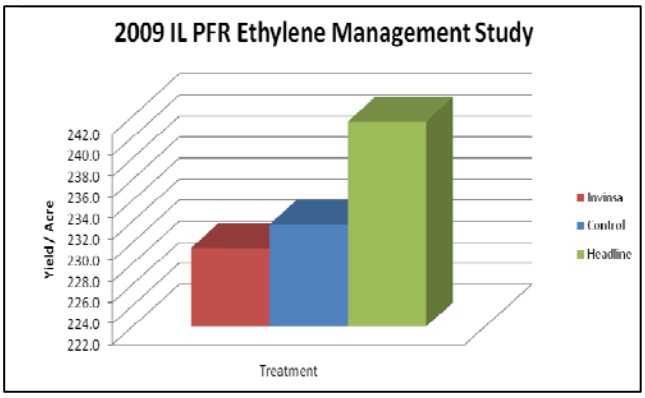
Purpose: In this ethylene management study, we are evaluating the impact of treatments which are designed to alter the status or sensitivity to ethylene in plants. Ethylene is a toxic gas that is overproduced by a plant under stress conditions.

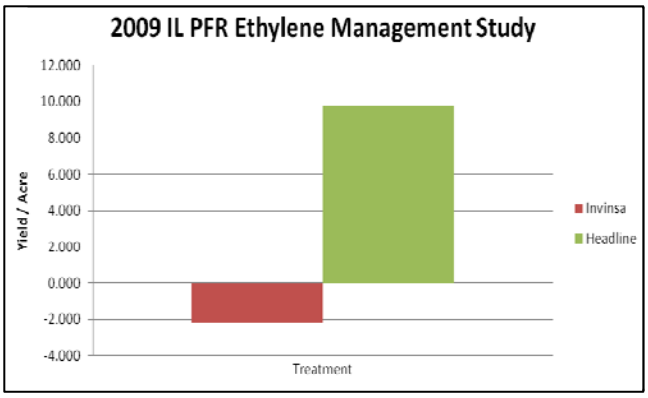
Invinsa™ crop stress technology is sprayable 1-methylcyclopropene and is used to decrease the plants sensitivity to ethylene. By not responding to ethylene, a corn plant can reduce premature leaf senescance, extend photosynthesis, reduce stress induced kernel abortion, and can achieve larger ears with better kernel fill.

Headline® fungicide is also used in this study as a strobilurin product and as a plant growth regulator. Strobilurins reduce the amounts of ethylene produced within a plant.

Treatments	Percent Moisture	Bushels† Per Acre	+/- Control	Bu./A. $ Return
None (control)	25.7	231.7		
Invinsa @ V10	26.1	229.5	-2.2	-$7.92
Headline @ VT	27.0	241.5	+9.8	$35.28
AVERAGE	26.3	234.2	+3.8	

†Bushels per acre corrected to 15% moisture.
^$ Return based on $3.60 corn times Bu./A. difference. No costs were figured since Invinsa does not have a price associated with it.





Summary: In this new first year ethylene management study in corn, Headline fungicide performed exceptionally well and increased corn yield by 9.8 Bu./A. over the control. However, V10 applications of Invinsa caused yield losses of 2.2 Bu./A. It is difficult to understand why the 1-methylcyclopropene caused yield loss, but more research needs to be done to fully interpret the role of ethylene in corn production.

In our soybean ethylene management trial at IL PFR, Invinsa performed very similar to Headline fungicide and provided an average 5.3 Bu./A. increase in yield.