

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
http://ageconsearch.umn.edu
aesearch@umn.edu

Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.





Department of Agricultural and Consumer Economics, University of Illinois Urbana-Champaign

Yield Exclusion: Description and Guidance

Gary Schnitkey, Bruce Sherrick, and Jonathan Coppess

Department of Agricultural and Consumer Economics
University of Illinois

January 13, 2015

farmdoc daily (5):6

Recommended citation format: Schnitkey, G., B. Sherrick, and J. Coppess. "<u>Yield Exclusion: Description and Guidance</u>." *farmdoc daily* (5):6, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, January 13, 2015.

Permalink http://farmdocdaily.illinois.edu/2015/01/yield-exclusion-description-and-quidance.html

The Yield Exclusion (YE) allows specific years to be dropped from the calculation of guarantee yields for crop insurance. This option is available because of provisions contained in the 2014 Farm Bill. This article describes YE, provides an example of Actual Production History (APH) yield calculation and premium quotation under YE, and provides guidance for YE's use. As a practical matter, most farmers should take YE when it is available and raises the guarantee yield, as long as it does not impact their trend adjustment eligibility. The same material is covered in a YouTube video available here.

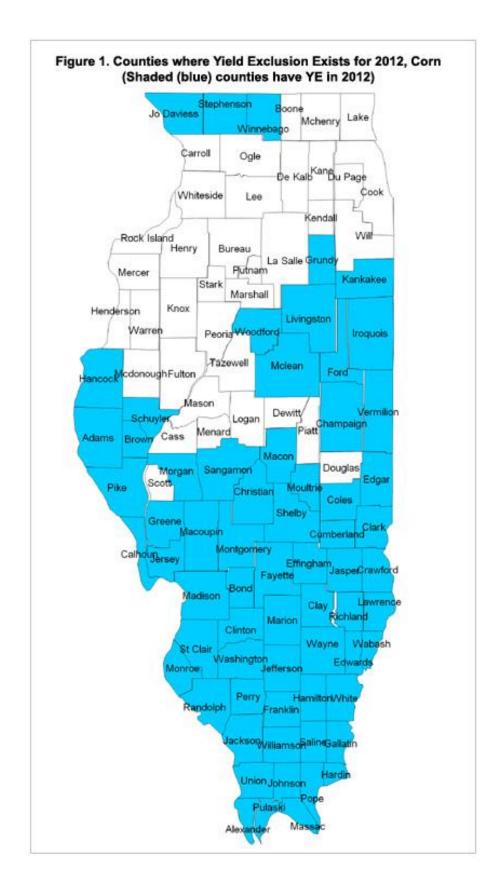
What is the Yield Exclusion?

Each county may have specific years that can be excluded from the APH yield calculation. To be excluded, the county or its contiguous counties has to have a yield for a year below 50% of the average of the previous 10-years of county yields. The determination of county-year combinations eligible for exclusion is done by the Risk Management Agency (RMA) and made available in their actuarial documents. Information and maps from RMA are available here.

For some Illinois counties, yield exclusions are available for 1995, 2002, 2005, and 2012. By far, more counties are eligible for exclusions in 2012 than any other year (see Figure 1). Appendix Table 1 shows all years of exclusion for corn in Illinois.

For soybeans, yield exclusions exist for a limited number of counties in southern Illinois (see Appendix Table 2).

We request all readers, electronic media and others follow our citation guidelines when re-posting articles from farmdoc daily. Guidelines are available here. The farmdoc daily website falls under University of Illinois copyright and intellectual property rights. For a detailed statement, please see the University of Illinois Copyright Information and Policies here.



Calculating the TA-APH yields

Table 1 shows an example of calculating Trend-Adjusted APH (TA-APH) yields without and with YE. In many cases, the TA-APH yield is the guarantee yield that is used to establish guarantees. This example is in McLean County and has actual yields for 2005 through 2014. When all years are included, APH yield for all years is 176 bushels per acre and TA-APH yield is 186 bushels per acre. The yield exclusion can be taken for 2012. Excluding the 2012 yield raises the TA-APH yield to 194 bushels per acre. This producer will likely take advantage of YE because an increase in the TA-APH yield occurs under YE.

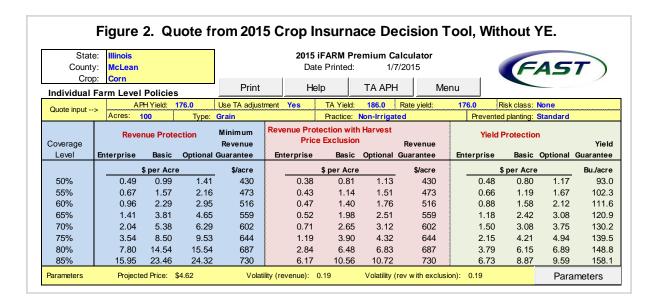
Table 1. Example of Yield Calculation when Yield Exclusion is Available for 2012.

		TA-APH Yield ¹		
	Actual	without	with	
Year	Yield	YE	YE	
	\$/bu.	\$/bu.	\$/bu.	
2005	161	179	179	
2006	182	198	198	
2007	196	211	211	
2008	190	203	203	
2009	186	197	197	
2010	170	179	179	
2011	160	167	167	
2012	110	115		
2013	189	193	193	
2014	220	222	222	
APH Yield	176			
TA-APH		186	194	

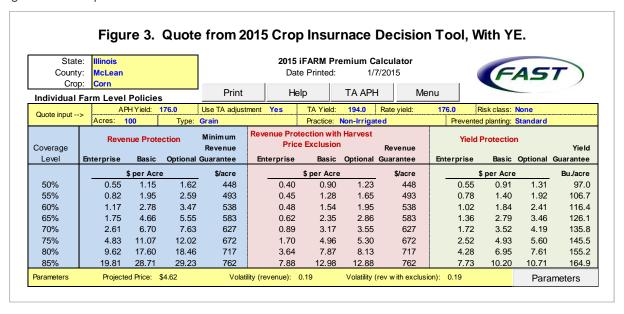
¹ Trend increase is 1.83 bushels per acre.

Quoting with YE

Premium quotes for YE can be obtained from the 2015 Crop Insurance Decision Tool, as is illustrated for the above McLean County example. Without YE, the APH yield and rate yield equal 176 bushel per acre, and the TA-APH yield is 186 bushels. Figure 2 shows a premium quote without YE.



With YE, the rate yield and the APH yield is 176 bushels and the TA-APH yield is 194 bushels per acre. Figure 3 shows premium under YE.



Guidance

Farmers will generally find it to their advantage to take YE when the TA-APH yield increases. Taking YE does not change the total premium for the same guarantee level. If \$730 per acre is the guarantee with and without YE, both alternatives will have the same total premium. However, the farmer-paid premium can be lower because subsidy levels often are higher for lower coverage levels. Because a lower coverage level results in a higher guarantee under YE, YE farmer-paid premium quotes can be lower than non-YE quotes for the same coverage level.

Table 2 shows premiums and guarantees with and without YE for the McLean County example quoted above. Consider an 80% quote and note that without YE, RP at 80% coverage level has a \$7.80 farmer-paid premium and a \$687 guarantee. With YE, an 80% coverage level has a higher premium at \$9.62 per acre, but a guarantee that is \$30 per acre higher at \$717 per acre. If the producer wants to maintain roughly a \$687 guarantee (80% coverage level without YE), the coverage level can be dropped to 75% with YE, resulting in a \$4.82 per acre farmer-paid premium.

	Territaris a	Exclusion	e, Without and n.	vvitii i ie	
Coverage	Without E	xclusion	With Exclusion		
Levelo	Premium	Guarantee	Premium	Guarantee	
	\$/acre	\$/acre	\$/acre	\$/acre	
50%	0.49	430	0.55	448	
55%	0.67	473	0.82	493	
60%	0.96	516	1.17	538	
65%	1.41	559	1.75	583	
70%	2.04	602	2.61	627	
75%	3.54	644	4.83	672	
80%	7.80	687	9.62	717	
85%	15.95	730	19.81	762	

Given that YE increases approved yield, it is difficult to build a case where taking YE places a farmer at a disadvantage unless it affects their eligibility for the trend adjusted yield endorsement, in which case the guarantee yield is lowered and becomes the APH yield.

Additional Information

RMA has a factsheet on YE released in December available $\underline{\text{here}}$. An overview of premium rating produced by RMA is available $\underline{\text{here}}$.

Appendix Table 1. Years in Which Yield Exclusion is Available for Non-irrigated Corn, Illinois.

	Year				Year				
County	1995	2002	2005	2012	County	1995	2002	2005	2012
Adams				Y	Kendall			Y	
Alexander				Υ	LaSalle				Υ
Bond				Υ	Lawrence				Υ
Brown				Υ	Livingston				Υ
Calhoun				Υ	McLean				Υ
Champaign				Υ	Macon				Υ
Christian				Υ	Macoupin				Υ
Clark				Υ	Madison	Υ			Υ
Clay				Υ	Marion				Υ
Clinton				Υ	Massac				Υ
Coles				Υ	Monroe	Υ			Υ
Cook			Υ		Montgomery				Υ
Crawford				Υ	Morgan				Υ
Cumberland				Υ	Moultrie				Υ
DuPage			Υ		Perry		Υ		Υ
Edgar				Υ	Pike			Υ	Υ
Edwards				Υ	Pope		Υ		Υ
Effingham				Υ	Pulaski				Υ
Fayette				Υ	Randolph	Υ	Υ		Υ
Ford				Υ	Richland				Υ
Franklin		Υ		Υ	St. Clair	Υ			Υ
Gallatin		Υ		Υ	Saline		Υ		Υ
Greene				Υ	Sangamon				Υ
Grundy				Υ	Schuyler				Υ
Hamilton		Υ		Υ	Shelby				Υ
Hancock				Υ	Stephenson				Υ
Hardin		Υ		Υ	Union				Υ
Iroquois				Υ	Vermilion				Υ
Jackson		Υ		Υ	Wabash				Υ
Jasper				Υ	Washington		Υ		Υ
Jefferson		Υ		Y	Wayne				Υ
Jersey				Υ	White				Υ
Jo Daviess				Υ	Will			Υ	
Johnson		Υ		Υ	Williamson		Υ		Υ
Kane			Υ		Winnebago				Υ
Kankakee				Υ	Woodford				Υ

Yindicates years for which yield can be excluded.

A county not on this list has no years allowed for yield exclusions.

Appendix Table 2. Years in Which Yield Exclusion is Available for Non-irrigated Soybeans, Illinois.

		Year			Year		
County	1996	2003	2009	County	1996	2003	2009
Gallatin	Υ						
Hardin	Υ						
Jackson			Υ				
Pope	Υ						
Randolph			Υ				
Saline	Υ						
Stephenson		Υ					
Union			Υ				
Winnebago		Υ					

Y indicates years for which yield can be excluded.

A county not on this list has no years allowed for yield exclusions.