3-22-2004

Should we rotate or not?

Palle Pedersen
Iowa State University, palle@iastate.edu

Follow this and additional works at: http://lib.dr.iastate.edu/cropnews

Part of the Agricultural Science Commons, Agriculture Commons, and the Agronomy and Crop Sciences Commons

Recommended Citation
http://lib.dr.iastate.edu/cropnews/1518

The Iowa State University Digital Repository provides access to Integrated Crop Management News for historical purposes only. Users are hereby notified that the content may be inaccurate, out of date, incomplete and/or may not meet the needs and requirements of the user. Users should make their own assessment of the information and whether it is suitable for their intended purpose. For current information on integrated crop management from Iowa State University Extension and Outreach, please visit https://crops.extension.iastate.edu/.
Should we rotate or not?

Abstract
Who expected that Saint Joseph would get beaten in the first round of the Atlantic 10 tournament? Or what about Duke's overtime loss to Maryland? March Madness is something that we all look forward to every year. Anything can happen in March. However, March also is the month where we will make the final decisions on the acres of corn and soybean.

Keywords
Agronomy

Disciplines
Agricultural Science | Agriculture | Agronomy and Crop Sciences

This article is available at Iowa State University Digital Repository: http://lib.dr.iastate.edu/cropnews/1518
Should we rotate or not?

Who expected that Saint Joseph would get beaten in the first round of the Atlantic 10 tournament? Or what about Duke’s overtime loss to Maryland? March Madness is something that we all look forward to every year. Anything can happen in March. However, March also is the month where we will make the final decisions on the acres of corn and soybean.

This winter, there was a lot of talk on crop rotation and on whether we should change our traditional corn and soybean rotation to a two-year corn and one-year soybean rotation. A few farmers may shift because corn yields have increased tremendously over the last few years whereas soybean yield has been more stagnant. The bottom line, however, is that alternating corn and soybean rotation is still the most profitable rotation sequence.

The use of an alternating corn and soybean rotation rather than a continuous corn or soybean typically results in higher net return and lower variability since the economics of crop rotations are largely tied to the effect of introducing a break crop. Possible financial effects on the whole farm are: 1) the net return of the break crop itself, 2) the effect on the variable costs of the continuously grown crop, and 3) the beneficial effect on the yields of the following crop after the break crop.

Joseph Lauer from the University of Wisconsin and I did an economic analysis on a 15-year data set in the fall of 2003, to estimate the long-term economic consequence of 14 different corn and soybean rotation sequences. The research was conducted from 1986 to 2001 near Arlington, Wisconsin. Our research showed that the most profitable rotation sequences over the last 15 years in Wisconsin were: first-year corn or soybean after five years of soybean or corn, respectively, and the alternating corn and soybean rotation sequence. Second-year corn yielded on average 149 bushels per acre or 20 bushels less than corn rotated annually with soybean. The economic return of second-year corn was only 20 percent of that for corn rotated annually with soybean. The major reason for this is not only the lower corn yield but also the higher N requirement by corn following corn compared to corn following soybean.

It is important to look at the corn and soybean rotation as a system and not as two separate crops. We also need to take risk into consideration, particularly when we have such a small profit margin on our crops. We only deal with two crops in our crop rotation. Therefore, by using the alternating corn and soybean rotation we will minimize our risk compared to a two-year corn and one-year soybean rotation. I know that many producers think that corn will never fail again because of the high yields we have experienced in the last four years. Nonetheless, everything is possible when we deal with Nature. The alternating corn and soybean rotation is still the most profitable rotation sequence to maximize profit on the whole farm.
Long-term corn and soybean rotation study near Arlington, Wisconsin.

This article originally appeared on pages 13-14 of the IC-492 (3) -- March 22, 2004 issue.

Source URL: