Canola Harvest Methods

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Summary

Harvest losses in spring oilseed crops can result from nonuniform development and maturation of seed pods. Swathing canola 3 to 8 days before normal combine harvest and curing for 5 days increased oilseed harvest by 19% in 2005; swathing canola 10 days before normal combine harvest and curing for 10 days increased oilseed harvest by 15% in 2007. Swathing canola more than 10 days before normal combine harvest reduced oilseed harvest in both growing seasons.

Introduction

Spring oilseed crops can be planted from mid-February through April and flower in late May for a mid-July harvest. Available water, stand establishment, and heat avoidance are significant factors affecting spring oilseed yields in the central High Plains. Nonuniform maturation of seed pods in spring oilseed crops can reduce harvest efficiency. Swathing and curing can lead to more uniform maturation of seed pods.

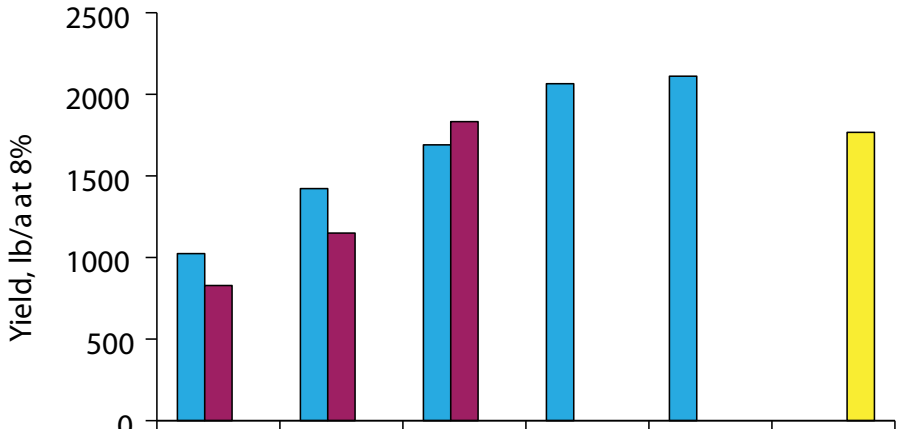
The objective of this study was to evaluate effects of swathing, timing, and curing on harvest efficiency for spring canola.

Procedures

Brassica napus 'Hyola 357RR' was direct seeded in replicated (five times) plots. Five swathing dates occurred at 3-day intervals. The swathed crop was threshed with a plot combine after a 5- or 10-day curing period. The first three swaths were machine harvested either 5 or 10 days after swathing. The fourth swath was harvested after 5 days, and the fifth swath was harvested after 3 days, corresponding with direct combine harvest. The direct combine harvest of unswathed canola occurred 105 days after planting. In 2007, the same *B. napus* line was direct seeded in replicated plots, and a similar swathing and curing schedule was followed before the crop was threshed with a plot combine. Two direct combine harvests were used in 2007. Field observations included emergence and stand ratings, 50% bloom date, and maturity date. Seed was harvested and analyzed for water content, test weight, and yield.

Results

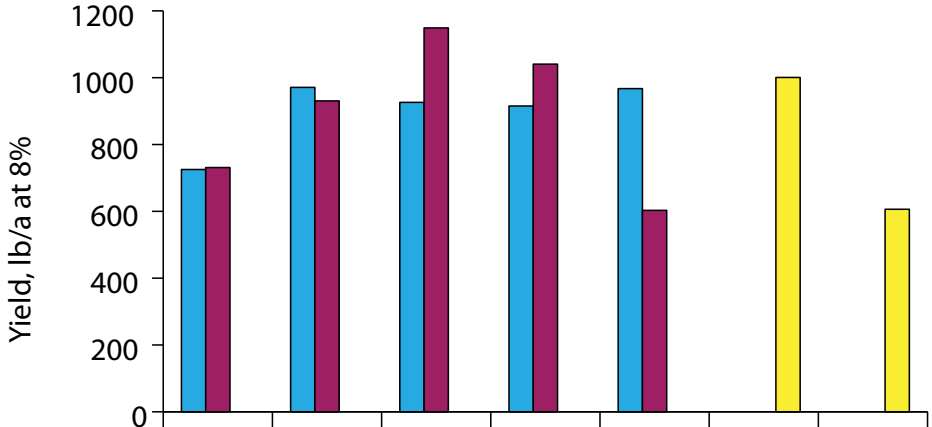
Harvested oilseed yields from the 2005 (Figure 1) and 2007 (Figure 2) growing seasons showed that oilseed yields increased after the first two swathing dates. In 2007, oilseed yield was maximized by swathing 10 days before direct combine harvest and curing for 10 days. Results indicate a harvested yield advantage to swathing and curing for 5 to 10 days before normal combine harvest.



	89	92	96	99	102	105
Cured 5 days	1024	1422	1690	2065	2111	
Cured 10 days	828	1150	1832			
Direct combine						1767

Days after planting

Figure 1. Harvested oilseed yield from *Brassica napus* 'Hyola 357RR' planted on Mar. 31, 2005, in Colby, KS.
The crop was swathed or direct cut with a plot combine on the indicated date. The swathed crop was cured for either 5 or 10 days before being threshed with a plot combine.



	71	74	77	80	83	87	91
Cured 5 days	725	971	926	915	967		
Cured 10 days	731	931	1149	1041	603		
Direct combine						1001	606

Days after planting

Figure 2. Harvested oilseed yield from *Brassica napus* 'Hyola 357RR' planted on Apr. 30, 2007, in Colby, KS.
The crop was swathed or direct cut with a plot combine on the indicated date. The swathed crop was cured for either 5 or 10 days before being threshed with a plot combine.