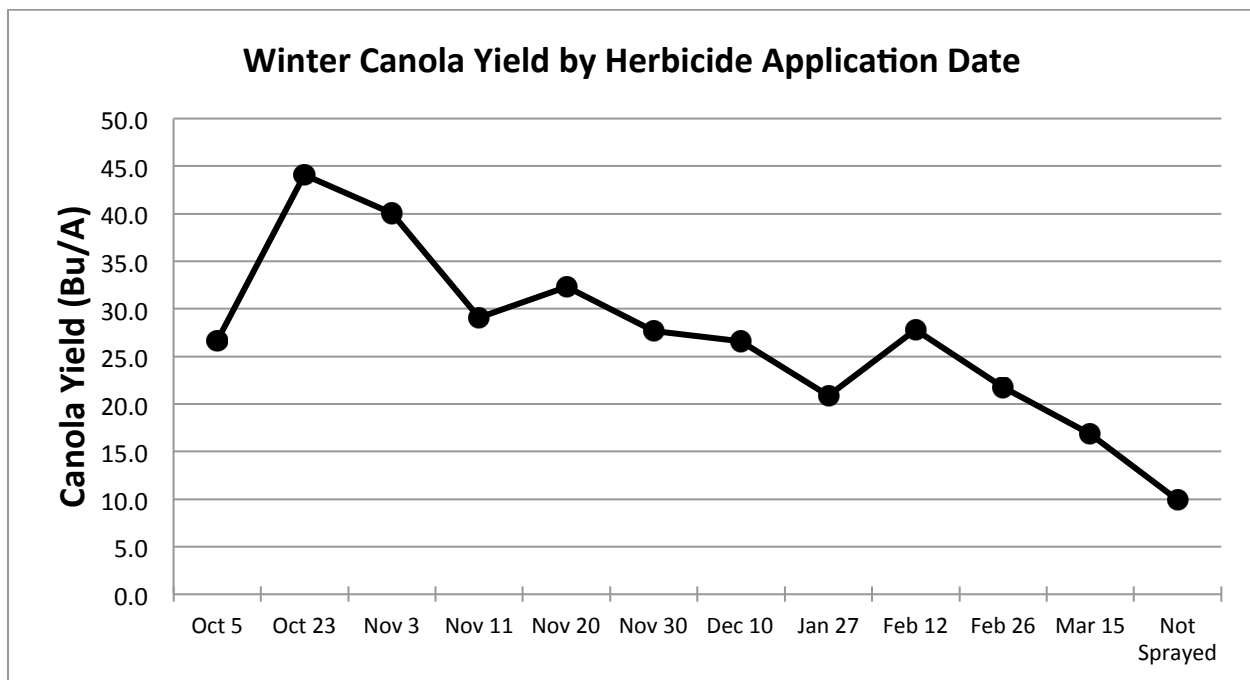


## Effects of herbicide application timing on winter canola yield. Josh Bushong, OSU Winter Canola Specialist

Two research trials were established in the fall of 2009 to evaluate the timing of herbicide application on winter canola yield. These trials were located near Perkins, OK and Stillwater, OK. The trials were planted on September 22<sup>nd</sup>, 2009 and harvested on June 11<sup>th</sup>, 2010. Both sites had a heavy infestation of volunteer wheat (15 plants per square foot) and Italian ryegrass (10 plants per square foot). Eleven application timings were evaluated. Roundup Powermax was applied at each herbicide timing. The optimum timing was about 4 weeks after planting. The first application removed most of the volunteer wheat, but some Italian ryegrass emerged after the herbicide was applied which reduced the canola yield. Following the fourth week after planting (Oct. 23<sup>rd</sup>) canola yields were reduced by 1.33 bushels per week.



Herbicide application timing proves to have a strong economic impact. Just as we have seen in wheat, the winter annual grassy weeds that emerge with the crop have the greatest impact on yield. Winter canola doesn't compete very well with weeds as a seedling. So the most "bang for your buck" would be to apply your herbicides early in the fall to allow the canola to establish. Usually if the weeds can be controlled before canopy closure the canola will become much more competitive. Even though more winter annual grassy weeds will likely emerge later into the fall and early winter the weeds that have the most impact on canola yield would be the early weeds that emerged with or shortly after the crop. A second herbicide application in early spring is common amongst canola producers to control the weeds that emerged after the first herbicide application. These weeds typically won't impact canola yield as much as the earlier weeds.

Field scouting in early spring can determine if a second herbicide application is necessary or even economically justified. Producers also need to take into account the reason why they decided to grow canola. If their main goal was to clean up their wheat fields then a second herbicide application would be highly recommended because even the slightest infestation would repopulate the field once again. According to some of our past research data it usually takes at least two years of intense management to reduce winter annual grassy weeds to a satisfactory level.

Picture of Italian Ryegrass in Winter Canola.

