

# Kentucky Wheat Variety Test Results Available – Freeze Affected Test Results



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**T**he 2012 wheat crop in Kentucky and several other states was damaged by the April 11-12 freeze. This weather event was preceded by many weeks of abnormally high temperatures which had accelerated the crop's growth and development and in-

creased its susceptibility to freeze damage. With low temperatures in the upper-twenties and a crop which had mostly headed out, damage was observed particularly in low areas of fields and in fields which were flowering.

The 2012 Kentucky small grain variety tests were affected as well. Of the 7 tests, 3 locations had minor damage, 3 had moderate and one was severely damaged. Tests with minor damage were not as advanced or were not exposed (duration and degree) to the temperatures at other locations. At most locations, it was evident that varieties which were flowering at the time of freeze had severe damage. A test near Henderson, KY for example showed yields ranging from 86.5 to 24.4 Bu/A. Later heading varieties tended to have the best yields, while the early varieties generally did not yield well. These dramatic yield differences corresponded with freeze damage notes.

Stage of development was related to extent of damage, but other factors such as slope and elevation also affected yields. A test near Cadiz, KY was conducted on a field with a minor-moderate uniform slope. The test was made up of 4 replicated blocks, with each varieties tested

once within each block. Block 1 was on the highest ground, 4 on the lower end of the test. Average yields for blocks 1,2,3,4 were 92, 87, 78, 70 Bu/A respectively. The producer at this location noted yields of 145 Bu/A on higher ground and 30 Bu/A on lower ground within the same field and put it best when he said, "It makes you think what it could have been" (had we not had the freeze).

The 2012 Kentucky average state yield is currently forecasted at 62 Bu, which is a few bushels below average. There are reports of damaged fields with very low yields, as well as undamaged fields yielding twice the state average or in excess of 120 Bu/A. This highlights the importance of selecting several good varieties to grow with differences in maturity. This practice also protects against the environmentally induced impact of disease, and may facilitate better harvest management. Overall I think growers are pleased with the 2012 wheat crop, given decent wheat prices, average yields in spite of freeze damage and that the crop was harvested 2-3 weeks earlier, facilitating timely planning of double-crop soybeans.

The 2012 Kentucky wheat variety test results have been affected by the freeze and yields may not reflect the genetic potential of varieties in a typical year. Other variety tests in surrounding states may also have been compromised by the freeze. It is recommended that 2011 data from last year's test be used along with this year's results for variety selection decisions. 2011 and 2012 variety test results are available at [www.uky.edu/ag/WheatVarietyTest](http://www.uky.edu/ag/WheatVarietyTest).  $\Delta$

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