PolicyPennings by Dr. Daryll E. Ray

## Early frost in northern low-lying areas may trim corn and bean potential

Last week we talked about our surprise at the USDA report that put U.S. 2004 corn production at 10.923 billion bushels and our concern that a lot can happen to the crop between the middle of August and harvest time. In particular we expressed a concern over the lack of growing degree days resulting in the late development of this year's crop and the possibility that the crop would not black layer before frost.

On Friday, we read the reports of this year's John Deere Pro Farmer Midwest Crop Tour. In the Upper Midwest states of Iowa and Minnesota, report after report talked about the POTENTIAL for this year's crop to give overall numbers not far off USDA's crop estimate. What struck us in these reports was the fact that some of the corn, especially, in Minnesota was in the recently pollinated to milk stage. The general consensus seemed to be that an extra two or three weeks beyond the average frost date would be needed for this crop to achieve its potential.

Given the weather patterns of late, it would not be surprising if the cool summer doesn't increase the odds of an early killing frost and render the chances of having an extra two or three weeks from slim to none.

Over the weekend, for the low spots in some fields in the upper Midwest it was "none." While official temperature reports from local airports did not drop below 36 degrees, farmers over a wide area reported frost damage to field edges and low spots. Beans seem to be the hardest hit, but corn did not escape some damage, particularly in the more northern areas.

One Minnesota agronomist we talked to said he had not seen any corn damage in his area, but that corn conditions varied widely. He said one could find fields that have the potential to yield 160 bu./ac. right next to a field that will yield 100-110 bu./ac. Even the good fields are spotty with six good stalks followed by a runty stalk struggling to put on any ear at all. He reported that most of the corn in his area (south-central Minnesota) was in the milk stage and will take 40 days (until October 1) to reach black layer.

This same agronomist reported that Saturday (August 21) night's low temperatures took the top leaves, top flowers and top pods off the soybeans. For the areas that were hit, he estimates that the frost will take 10% off the yield potential. In assessing the soybeans in his area he characterized this season saying it was too wet too early, with too much disease in the low ground, and white mold in the high ground.

While the frost was spotty in northern Iowa and southern Minnesota, reports indicate from northern Minnesota and North Dakota northward, frost was much more widespread. While Canadian losses will not figure into U.S. crop potential they will have some impact on our export trade potential, particularly if Canadian wheat quality is downgraded to feed wheat.

As we assess the potential for this year's corn crop to set a new record, we have to agree with IaTrader's post on Agriculture Online when he wrote, "How many 'widely scattered and isolated' problems, i.e. wind, flooding, hail, frost, N loss, etc. does it take to add up to noticeable bushels?" We will probably have a better answer to that question six weeks from now.

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