Barley Might Have Environmental, Economic Potential

LEXINGTON, KY.

In the 1950s, more than 120,000 acres of Kentucky farmland stood in barley. Today, that number is down to approximately 10,000 acres. Blame most of the precipitous drop in acreage on the decrease in demand for barley over the last 50 years. But now there's a renewed interest in the grain, and some producers are beginning to take another look at the crop.

Demand is beginning to slowly increase, and ethanol might be the reason. Once producers started diverting corn toward fuel production, its cost rose for animal feed. As a result, livestock producers, particularly those raising swine, started to look at other feed options. Barley is one of those options.

But aside from being used for feed, barley itself is being sought by some companies as biomass for ethanol production. A Virginia company, Osage Bio Energy, currently is contracting with farmers in the Mid-Atlantic States for 300,000 acres of barley annually. According to their Web site, the company is developing the first barley-based facility in the Southeast and Mid-Atlantic regions to produce biofuel and animal feed.

At the University of Kentucky 2009 Winter Wheat Meeting in Bowling Green, Dan Brann, a retired extension grains specialist from Virginia Tech and a consultant for Osage Bio Energy, explained the company's plans to produce bio ethanol, barley protein meal and barley fiber pellets, a renewable fuel. He told the gathering that this was opening up new opportunities to farmers in the Mid-Atlantic and, if successful, might provide a market for Kentucky farmers in the future.

"There are many reasons to consider barley for the process over another biomass crop. One, barley fits really well into the cropping systems," he said.

Bill Bruening, coordinator of the Small Grain Variety Testing Program in the UK College of Agriculture, agrees that barley could have its advantages in a double-crop system because of the increased soybean yield that often results.

"Barley can be harvested two weeks prior to wheat," he said. "Typically when we get into wheat harvest, it puts us in a late-planted soybean situation. When you plant soybeans late, the yields decline."

Data averaged over many years shows that for every day soybeans are planted after June 10, farmers can expect yields to drop by 1 to 1.5 percent per day, which translates to about one-half to three-fourths of a bushel per acre per day.

"Soybeans right now are around $10 a bushel, so you're talking about a tremendous amount of money that farmers are losing when they have to double-crop behind wheat," Bruening said.

But he also said although the price of barley has increased somewhat in the past few years, it is always lower than wheat.

"With high input costs, the margin of barley production profitability is questionable," he said. "In order for barley's potential benefit in a double-crop system to be realized, input costs must decrease and/or barley price increase. Recent research has shown that barley yields may be maximized with substantially less nitrogen fertilizer applied than the currently recommended rate. This is one way that barley production input costs can be reduced."

There are other reasons for farmers to take a good hard look at all the pros and cons of devoting acreage to barley.

According to Osage's Web site, approximately 5 million acres in the Southeast and Mid-Atlantic lie fallow or have non-cash winter cover crops. From both environmental and economic standpoints, barley might provide an answer.

"Winter small grains, such as wheat and barley, provide growers an important source of income during the summer months," Bruening said. "Winter cover crops also reduce soil erosion, add organic matter to the soil and provide moisture conserving residues. They also reduce ground water contamination by utilizing residual nitrogen from the previous crop."

"If we can keep our soybean yield potential maximized by timely planting, there's a lot of potential profit for growers there," he continued. "If we look at the whole system, barley is ideal in this respect, and I think growers need to consider that, even though the price of barley is still low." Δ