Barley Bulletin

Volume II ~ SUMMER 2011

Barley: Evolution or Revolution

Doyle Lentz, Chair

North Dakota Barley Council • District IV Council Representative

Genetic technology and farming operations continue to evolve. Corn and soybeans continue to move into areas that were traditionally planted to wheat and barley. Barley has evolved from a commodity crop to a specialty crop. The evolution has also impacted the planning and delivery of programs executed by the North Dakota Barley Council. This issue of the barley bulletin highlights the evolution of barley supply, and outlines projects the Council is undertaking to keep barley viable.

The 2011 crop year has been a real challenge, especially with regard to planting. USDA-FSA estimates prevented planting in North Dakota at approximately 6 million acres. Wet conditions and record flooding have been problematic in many areas.

Commodity prices remain relatively solid, and we hope that next year will bring greater opportunities to capture profits.

We wish you a safe and profitable crop production year!

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Barley Acres and Production

The following table provides a trend of acres planted to barley for the key barley producing states. North Dakota has experienced a considerable decline in acres (over 55% since 2009).

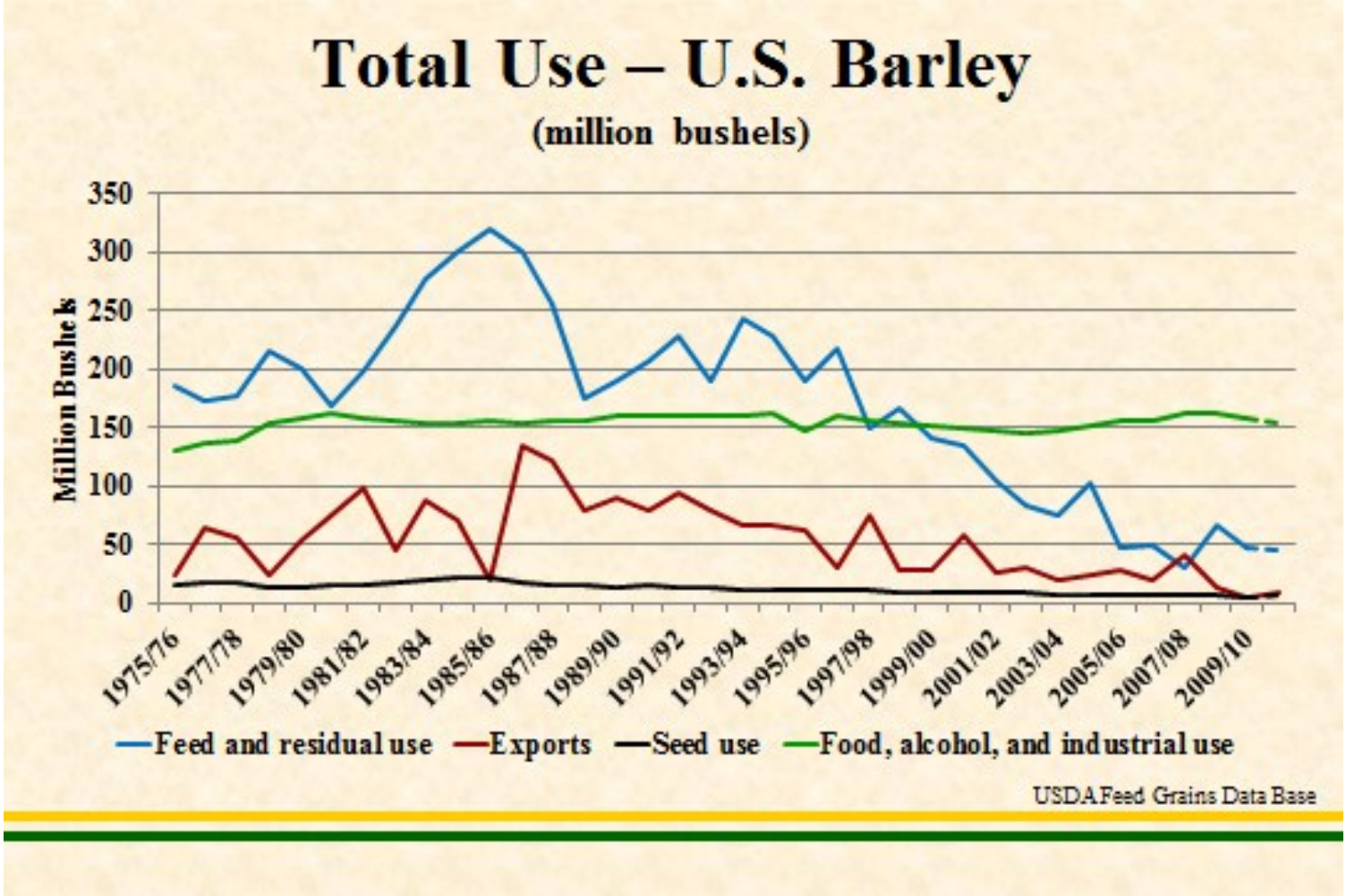
Area Planted (Acres)							Percent Change From
STATE	2006	2007	2008	2009	2010	2011	2010
Idaho	530,000	570,000	600,000	530,000	490,000	510,000	4%
Maryland	50,000	45,000	45,000	55,000	45,000	55,000	22%
Minnesota	105,000	130,000	125,000	95,000	85,000	80,000	-6%
Montana	770,000	900,000	860,000	870,000	760,000	780,000	3%
North Dakota	1,100,000	1,470,000	1,650,000	1,210,000	720,000	550,000	-24%
Oregon	55,000	63,000	57,000	40,000	45,000	40,000	-11%
Washington	200,000	235,000	205,000	105,000	90,000	115,000	28%

Source: USDA-NASS

Nationally, USDA-NASS reports barley area planted at 2,815,000 acres for 2011, down 2% from 2010. It is anticipated the U. S. production will remain in the area of 3 million acres annually.

Where Has Barley Production Gone?

Barley production in the United States peaked in the mid 1980's at approximately 600 million bushels. Since that time, the trend for feed barley has been downward, while utilization in malting and brewing has remained relatively constant. The following graph was developed from the U. S. feed grains database.



(Graph courtesy of Dr. Frayne Olson, Crops Economist, NDSU Extension Service, Fargo, ND).

The residual supply of feed barley (some of which was of sufficient quality to be channeled into malting and brewing applications) has declined steadily since the mid 1980's. This was due in part to increased use of corn in livestock feed. Barley utilization for food, alcohol, and industrial use (i. e. barley focused on malting and brewing) has stayed relatively constant at approximately 150 million bushels. As barley supplies declined, production from open acres declined and thus resulted in barley evolving into a specialty crop produced under contract.

Loss of export markets has also impacted barley production. Historically, the U. S. has been a key supplier to Japan. In recent years, Japan has shifted its focus to Australia and Ukraine as a primary source of supply. This has further constrained barley production and resulted in increased pressure on the malting industry to contract barley in order to ensure a consistent source of supply.

Barley Council Projects

Barley Council Projects

The Barley Council continues to adjust to changes in barley production and utilization to assist in keeping barley agronomically viable and economically feasible for growers. The Council maintains a balanced approach to barley at the production, processing, and marketing levels, as highlighted in the following sections.

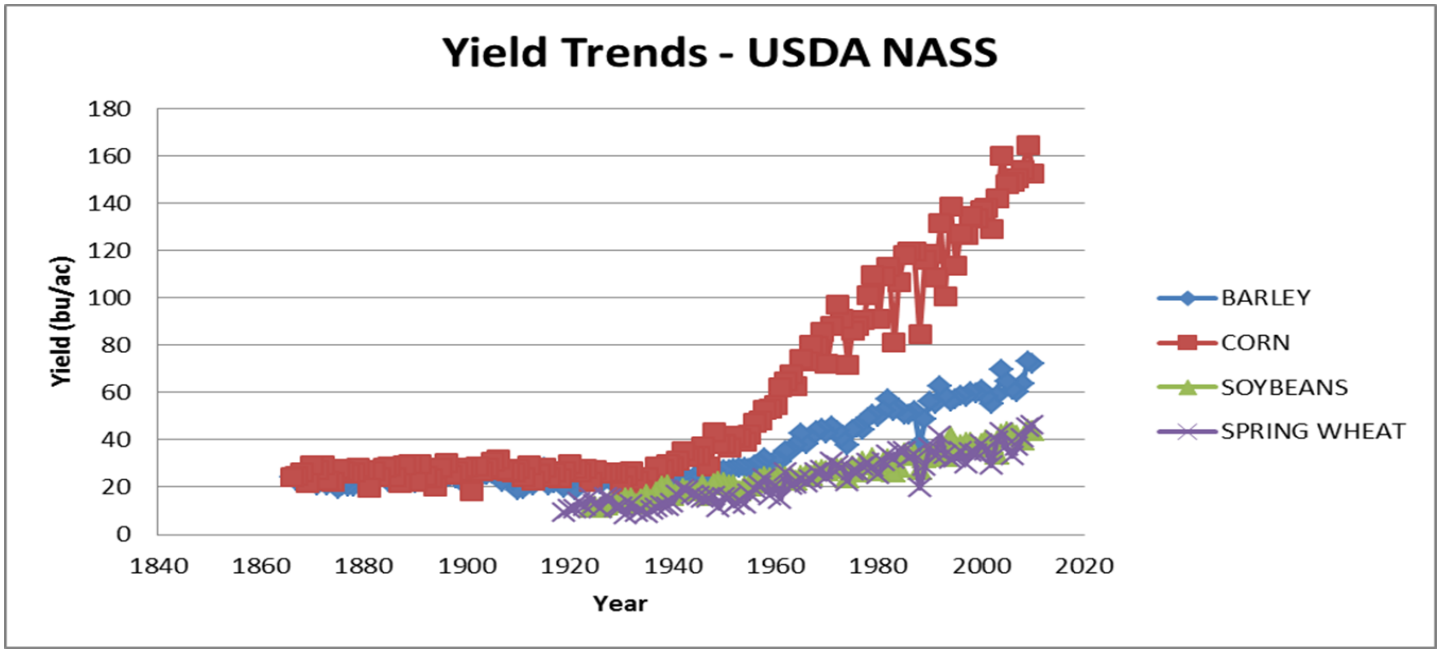
Crop Management and Variety Development

- North Dakota State University has an excellent barley variety development program.
  Research is integrated to include malting and brewing quality, disease management, and crop management.

  The Barley Council continues to support a number of projects:

  - Barley variety development (Dr. Richard Horsley, barley breeder).
    - Development of 2 row and 6 row varieties for production in North Dakota.
  - Institute of Barley and Malt Science (Dr. Paul Schwarz, director).
    - Evaluation of malt quality for integration into breeding programs.
  - Barley Crop Management.
    - Nitrogen Fertilizer Utilization Research at the Carrington Research Center (Paul Hendrickson, agronomist).
    - Barley Seedling Disease Management Research at the Langdon Research Center (Scott Halley, agronomist).
  - Barley pathology is integrated into variety development, thus resulting in improved varieties with enhanced disease resistance. NDSU Barley Pathologist Dr. Robert Brueggeman leads this research effort.

- USDA Agricultural Research Service (ARS) conducts research on barley genetics, the results of which are integrated into variety development at NDSU. Dr. Lynn Dahleen (ARS in Fargo) conducts research in this area that is supported by the Barley Council. The Council also supports a collaborative project on barley pathology coordinated by Dr. Tim Friesen (ARS in Fargo) and Dr. Robert Brueggeman.
- The Barley Council hosted a conference in April 2011 entitled "Investing in Traditional and Emerging Technologies to Develop Next Generation Barley Varieties." The objective was to outline strategies for incorporating biotech traits (e. g. nitrogen use efficiency) into future barley varieties. Biotech is an emerging area for barley, and caution must be exercised in incorporating this technology into variety development.



Barley Council Projects

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Food Barley

The Barley Council supports promotion and utilization of food barley in the following areas:

- National Barley Foods Council promotes utilization of barley as a food ingredient. Since the heart healthy claim for barley was issued in 2006 by the U. S. Food and Drug Administration, barley ingredient utilization has experienced slow but modest growth.

- The Barley Council is supporting barley ingredient application research at the Northern Crops Institute in Fargo. A trade team from Japan food ingredient companies will be part of an educational program at NCI in September 2011.

Farm Policy

- National Barley Growers Association continues to serve has the primary vehicle for barley growers in developing farm policy (e. g. farm programs, crop insurance, and disaster programs). Farm safety nets are a necessary part of national food security.

- Crop insurance continues to be focal point in maintaining a viable safety net. Barley shifted from a feed crop to a specialty crop, and thus the need for a crop insurance product reflective of malting barley became more apparent. The Barley Council, in cooperation with a major malting and brewing company and a crop insurance developer, submitted a new insurance product concept to Federal Crop Insurance Corporation in May 2011. The concept is currently under expert review. If approved for development, the new product could be available in 2013.

- The North Dakota Grain Growers Association and the North Dakota Barley Council work closely on environmental issues that impact production agriculture. Barley is well represented at the national level thanks to this alliance between the Council and NDGGA.

Market Development

- U. S. Grains Council continues to be a primary alliance for the Barley Council in market development. Current activities are focused on the promotion and utilization of U. S. malting barley in Central America. The U. S. has advantages for supplying this market (e. g. location, supply source, etc.).

- China continues to increase its purchases of barley for malting and brewing. The Barley Councils of North Dakota and Minnesota are working together to promote 6 row malting barley utilization in China.

- Barley continues to be a viable livestock feed. Barley can be combined with Dried Distillers Grains (DDGS), thus resulting in a nutritionally dense feed product that provides greater benefit to livestock rations than either barley or DDGS fed separately. The Barley Council provides support to Dr. Vern Anderson (ruminant nutritionist at the Carrington Research Center) to conduct research on barley and DDGS performance in livestock diets. In addition, the Barley Council has provided support to the Central Dakota Feeds Initiative, a project developed to expand utilization of nutrient dense feeds from the variety of co-products generated from valued added processing plants in North Dakota.

Council Directors

Doyle Lentz, District IV, Rolla, ND: Doyle serves as chair of the North Dakota Barley Council. Doyle was elected vice president of National Barley Growers Association in June 2011, and will be working in the development of the 2011 farm bill. Doyle also serves on the Northern Crops Council, North Dakota Grain Growers Association, and the State Board of Ag Research and Education (SBARE).

Greg Kessel, District V, Belfield, ND: Greg serves as vice chair of the Barley Council. Greg's efforts focus on barley utilization in human food development. Greg also serves as the Council representative to the National Barley Foods Council and the North Dakota Ag Coalition.

Mark Seastrand, District II, Sheyenne, ND: Mark serves on the board of directors for U. S. Grains Council, and is involved in barley market development in the international arena.

James McCullough, District III, Regan, ND: James was elected to the Barley Council in March 2011 and will support Barley Council efforts via representation to the North Dakota Crop Improvement Association and the NDSU Variety Release Committee.

Charles Ottem, District I, Osnabrock, ND: Charles serves on the National Wheat and Barley Scab Initiative, National Barley Growers Association, barley promotion via U. S. Grains Council, and is the Council representative to SBARE.

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NEWMANS' BARLEY GRANOLA

1/3 cup canola oil
1/3 cup honey
2 tsp. vanilla
½ tsp. salt
5 cups fine barley flakes (NuWorld Nutrition's Hot Barley Cereal (myweb.arvig.net/nuworld/)
1 ¼ cup coarsely ground pecans
1 tsp. cinnamon

Grease a 9x13" baking pan with oil. Heat oven to 325 degrees.
Melt honey in saucepan, add oil. Remove from heat, add vanilla and salt.
In a large bowl, combine barley and nuts, add honey mixture and cinnamon. Stir well.
Place mixture in the greased pan, and bake 30 minutes, stirring occasionally.
Turn oven off, and leave granola in oven 25-30 minutes longer. Remove from oven,
Cool, and store in air-tight container.

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North Dakota Barley Council Calendar

2011	EVENT
July 11:	NDSU Field Day – Casselton
July 12:	NDSU Field Day – Hettinger
July 13:	NDSU Field Day – Dickinson
July 14:	NDSU Field Day – Williston
July 19:	NDSU Field Day – Carrington
July 20:	NDSU Field Day – Minot
July 21:	NDSU Field Day – Langdon
July 21:	USDA – ARS Northern Great Plains Research Center Friends and Neighbors Day, Mandan, ND.
July 25 – 28:	U. S. Grains Council Board of Delegates meeting, San Francisco, CA.
September 11 – 17:	USGC Japan Trade Team to Visit United States
September 13 – 15:	Big Iron, West Fargo, ND
November 29-30:	NDAA Northern Ag Expo
Dec. 4 – 6:	2011 National Fusarium Head Blight Forum, St. Louis, MO
Dec. 7 – 8:	Prairie Grains Conference, Grand Forks, ND

2012	EVENT
Jan. 15 – 17:	ND Grain Dealers Convention, Holiday Inn, Fargo, ND.
Jan. 25 – 27:	KMOT Ag Expo, Minot, ND.
Jan. 29 – Feb. 1:	NBGA winter meeting, Washington, DC.
Feb. 13 – 16:	U. S. Grains Council International Marketing Conference, Panama City, Panama.