

## FY 2012 budget approved: IBC sets strategic direction for coming year

The Idaho Barley Commission set its FY 2012 budget and strategic priorities for the next year during its annual budget meeting held June 15 and 16 in Bonners Ferry. The board was pleased to travel to the state's furthest northern barley production area and visit with area growers about their concerns and needs.

### 2012 STRATEGIC PRIORITIES

#### Expand export market opportunities for Idaho barley and malt –

- Our focus remains on brewing customers in Mexico, Central and South America.
- South Korea also was added to the target list as a result of the favorable prospects for passage of the Korea-US Free Trade Agreement which will open that market for U.S. malt.

#### Expand food barley production and market opportunities – this multi-prong effort involves variety development and work with cereal processors and end users. IBC will focus on:

- Spring food barley breeding at the ARS Aberdeen research facility.
- Winter food barley breeding at Oregon State University.
- Extensive outreach to cereal processors and end-users, including the baking, cereal manufacturers and food service industries.

IBC set a FY 2012 budget of \$429,587, about 5% above estimated FY 2011 expenditures of \$408,400.

Research – 24%,  
Marketing – 21%  
Grower Services – 24.5%  
Education/ Info – 11%  
Admin – 19.5%

#### Expand winter barley production – Idaho leads the nation in winter feed and malting barley production and will continue to focus resources on breeding both winter malting and food barleys. This campaign includes:

- Winter breeding efforts at both ARS Aberdeen and Oregon State University.
- Work with the American Malting Barley Association and Idaho-based malting/brewing companies on the approval of new winter malting barleys.
- Work with the USDA Risk Management Agency on securing crop insurance coverage for winter barleys.

#### Expand feed barley production –

- We will launch a new campaign with Magic Valley feed manufacturers and cattle/dairy feeders to encourage more production of winter feed barleys that have high yield potential, particularly in south-central Idaho where large feeding operations exist.
- We will continue to facilitate research on using barley protein in trout and salmon diets.

# IDAHO BARLEY R·E·P·O·R·T

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## Making feed barley profitable again in southern Idaho

In the past decade Idaho barley acres have shifted from the northern to the southern end of the state while the variety mix has moved significantly away from feed barley to malting barley because of the higher net returns. But local feed processors say there is room to expand local feed barley production if both grain producers and end users can find a way to make feed barley pay its way in local farmers' crop rotation.

J.D. Heiskell is a prominent feed processor headquartered in Wendell with a keen interest in promoting increased feed barley production. The company operates a large feed mill in Gooding that makes steam flaked dairy feed from mostly local barley and corn that is railed in from the Midwest. "Our business is feeding cows," says merchandiser Mark "Razz" Rasgorshek, "and the large dairy base in southern Idaho is an excellent market for us.

Our biggest challenge is to source enough grains locally to meet our demand for high quality, cost-effective feed ingredients. We have a steady demand for about 25,000 tons of barley, but only about 60 percent of that is supplied locally because of insufficient supplies".

Feed barley demand in the local dairy ration is largely dependent on its price relationship with corn, with a typical \$10-15/ton discount due to its lower bushel weight and energy content. "Some of our customers prefer higher levels of barley in their rations, particularly if they are using higher

amounts of corn silage, but availability is often a limiting factor for us," says Razz. "The trickiest part for us in building stronger demand for feed barley is being able to predict supplies."

**So why doesn't J.D. Heiskell and other local feed manufacturers consider direct contracting with growers as a win-win option for increasing local feed barley supplies?** Razz says his company doesn't offer direct grower contracts for feed barley because they have no way to hedge their price

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J.D. Heiskell, a 125-year old grain and commodity trading business based in Tulare, CA, is one of the top 250 privately held companies in the United States. The company has operations in seven western states and exports grains and commodities to Mexico and Asia. They operate the single largest feed mill in the U.S. in Pixley, CA and the world's largest grain rolling facility in Mountain Home, ID (joint venture with JR Simplot Co.).

The company expanded its operations to Idaho in 2000 when it purchased the feed assets of the O.H. Kruse Company in Wendell, ID. They purchased two feed mills in Gooding and Twin Falls from Land O'Lakes in late 2009.

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risk in a futures contract. But he says J.D. Heiskell is "very interested in discussing innovative ways to partner with local growers to expand local barley supplies, including an assessment of how higher yielding winter barleys might improve growers' net return to make barley more competitive in their rotations."

Razz says the southern Idaho feed

industry is facing several near-term challenges, but he remains very bullish on the long-term marketing opportunities. Most notably are the sharp swings in dairy profitability, with margins likely to remain under pressure in the near term because of high input costs. Razz says the grain market is looking at only a modest expansion of U.S. corn production this year, coupled with strong demand, which will likely keep stocks tight and prices strong. Razz also noted rising transportation costs as a significant challenge, but this factor should ultimately favor locally-grown feed grains.





## Bringing high tech genetic research out of the laboratory into barley farmers' fields

Contributed by Peggy G. Lemaux, Barbara Alonso and Karen Hertsgaard

The barley Coordinated Agricultural Project (CAP) was a four-year comprehensive research project, which included 30 scientists from 19 institutions with expertise ranging from genetics/genomics, breeding, pathology, databases, computer science, food science, malt quality and statistics. The University of Minnesota was the

lead institution for this project. During the first three years of the project, the extension group for Barley CAP provided many resources to the barley community, such as fact sheets and posters. In the final year, the focus changed to integrating these resources and finding a "permanent home" for these and other barley resources.

**The answer came in the form of eXtension.**



The USDA-sponsored eXtension effort is internet-based and provides a location for individuals to exchange knowledge and resources (<http://www.extension.org>) – in this case, barley. It is a constantly evolving internet repository of information aimed at various audiences and organized by topic area. It is intended to augment classical extension efforts.

Peggy Lemaux, Karen Hertsgaard and Barbara Alonso worked with the Solanaceae Coordinated Agricultural Project (SolCAP) to create the framework on eXtension for CSREES-sponsored CAPs. Barley growers are the focus audience for the materials created by the Barley CAP grower page, which was launched in January 2011 (<http://www.extension.org/pages/32458/barley-information-for-growers>).

The grower pages contain links to sites and articles on barley production (organized by state), uses of barley, background information and resources for educators. Resources are cross-linked to aid information searches throughout the site. A new barley backgrounder, written specifically for eXtension, and links to many of the Barley CAP materials developed earlier and to a number of useful grower resources from the Institute of Barley and Malt Sciences.

A new fact sheet, *Combating African Stem Rust in Barley*, written by Brian Steffenson and Peggy Lemaux and designed by Barbara Alonso, explains stem rust, its origins, potential impact on U.S. crops, and the steps being taken to prevent its spread. A five-minute podcast, addressing the same issues with Ug99, was also created and is available on the eXtension website at (<http://www.extension.org/pages/32536/combating-the-threat-of-african-stem-rust-podcast>).

Please visit <http://www.extension.org/pages/32458/barley-information-for-growers>. We hope that you will find eXtension to be a useful resource, and we welcome any feedback you can provide!



### BARLEY GENETIC RESEARCH CONTINUES UNDER TRITICEAE CAP

USDA has awarded a five year, \$25 million competitive research grant to a collaborative team of 56 barley and wheat researchers at 28 institutions across the United States, including both the USDA ARS and University of Idaho barley and wheat breeding programs at Aberdeen, ID, to conduct both basic and applied research to improve barley and wheat germplasm for changing environments. A team of 56 scientists will utilize the latest genetic mapping and sequencing techniques to intensely focus on improving yields, water and nitrogen efficiency and resistance to major diseases, including the emerging threat of new and virulent races stem rust.

This project known as the Triticeae CAP or T-CAP is headed by Dr. Gary Muehlbauer, barley geneticist at the University of Minnesota, and Dr. Jorge Dubcovsky, wheat geneticist at the University of California, Davis. Three Idaho-based scientists will play a key role in this comprehensive 5-year collaborative research project:

Dr. Jianli Chen, University of Idaho wheat breeder; Dr. Mike Bonman, USDA ARS Research Leader and plant pathologist; and Dr. Harold Bockelman, USDA supervisory agronomist and curator of the National Small Grains Collection.

The Idaho scientists will screen the water and nitrogen-use efficiency of the 3,000 barley and wheat lines that comprise the

USDA ARS National Small

Grains Collection housed at the federal research facility in Aberdeen. This seed collection represents a global diversity of small grain germplasm gathered by researchers worldwide since 1897.

## MARKET OUTLOOK: MY 2011/12 Global Grain Market Fundamentals

- World barley production up 6% (U.S. crop down 3%), usage down 2% (U.S. down 2%) and carryover down 10% (U.S. down 27%). Crop conditions are mixed across the Northern Hemisphere, with winter barley under stress in northern Europe and spring barley plantings seriously delayed in the Northern U.S. Plains and parts of Canada which could mean less acres planted and lagging maturity.
- World wheat production up 2% (U.S. crop down 7% but better than expected winter wheat output), usage up 1% (U.S. up 5%) and carryover down 2% (U.S. down 15%).
- World corn production up 6% (U.S. crop up 6%), usage up 3% (U.S. down 0.8%) and carryover down 5% (U.S. down 5%).

### KEY DRIVERS

- **U.S. beer demand remains stagnant** (down 1.6% in 2010; but craft beer segment was up 9%).
- **In an unusual move, USDA lowered its 2011 U.S. corn acreage estimate in June by 1.5 million acres to reflect a poor start to the new crop as well as flooding problems along both the Missouri and Mississippi Rivers. USDA confirmed a 2<sup>nd</sup> consecutive year of very tight domestic and global ending stocks (domestic stocks-to-use only 5.2% and global 12.8%).**
- **USDA also lowered 2011 U.S. spring wheat acres by 290,000 in June.**
- **How much corn will China need to import to meet its expanding livestock feed demand?** China has already purchased about 1.5 MMT of U.S. corn in the current marketing year, along with considerable amounts of Australian feed wheat. Many analysts believe China will need to import more corn yet this

year to refill their strategic reserves and meet rising demand for feed grains. USDA is projecting China will draw down its corn ending stocks another 5% in MY 2011/12.

- **Future of U.S. ethanol subsidies** – U.S. Senate voted in mid June to end the current ethanol tax incentives (worth about \$5 billion/year) but the blending mandate remains in place. This mandate, which was first put into place in the 2005 comprehensive energy bill and later expanded in the 2007 energy bill, props up the U.S. ethanol industry by re-

quiring gasoline retailers to use 12.6 billion gallons of the biofuel this year. The mandate expands to 15 billion gallons in 2015. Ethanol represents more than 9% of the U.S. gasoline market.

- **Outside market influences** – investment money flow, value of the dollar and crude oil will continue to strongly influence market direction, with recent high volatility attributed to ongoing geopolitical tensions in the Middle East and North Africa and a less robust U.S. and global economic outlook.

MY 2011-12 U.S. Grain Supply & Demand, USDA, June 9, 2011 (million bu)						
	BARLEY		CORN		WHEAT	
	2010-11	2011-12	2010-11	2011-12	2010-11	2011-12
Harvested acres (mln)	2.5	2.6	81.4	83.2	47.6	47.8
Carryin	115	93	1,708	703	976	809
Production	180	175	12,447	13,200	2,208	2,058
Imports	10	10	25	20	100	110
Total supply	306	278	14,180	13,950	3,284	2,997
Food, seed & industrial	160	160	6,400	6,455	1,010	1,020
Ethanol			5,000	5,050		
Feed	45	40	5,150	5,000	170	220
Exports	8	10	1,900	1,800	1,295	1,050
Total usage	213	210	13,450	13,255	2,475	2,290
End stocks	93	68	730	695	809	687
Stocks to use	44%	32%	5.4%	5.2%	33%	30%

MY 2011/12 World Grain Supply & Demand, USDA, June 9, 2011 (million metric tons, MMT)						
	BARLEY		CORN		WHEAT	
	2010-11	2011-12	2010-11	2011-12	2010-11	2011-12
Carryin	36.9	24.4	143.5	117.4	198.3	187.1
Production	123.5	130.3	820.6	866.2	648.2	664.3
Total supply	160.4	154.7	964.1	983.6	846.5	851.4
Export trade	14.3	13.2	92.9	92.5	128.0	126.9
Total usage	136.1	132.8	846.7	871.7	659.4	667.2
Carryout	24.4	21.9	117.4	111.9	187.1	184.3
Stocks/use	17.9%	16.5%	13.9%	12.8%	28.4%	27.6%

## PRODUCER TOOLBOX: Cereal diseases on the rise in 2011

Contributed by Dr. Juliet Marshall, UI cereal crop management specialist, Idaho Falls

With the current stripe rust epidemic “going viral” in winter and spring wheat, you may have concern about your barley this year. The good news for barley production is the strain of stripe rust affecting wheat should have little to no effect on your barley crop. The bad news is that we are now seeing the barley stripe rust strain in southeast Idaho. In this case, very little damage is occurring in our winter barley in the Aberdeen variety trials. The highest infections that I have seen are occurring on advanced breeding lines and not on commercial varieties. If the barley stripe rust is the same strain that was here several years ago, then we can expect little to no damage on most of our commercial barley production, especially in the two-rowed lines. As the season progresses, we will keep an eye on the spring barley variety trials for the response to the barley stripe rust and will keep everyone posted with stripe rust alerts sent out periodically and available

on our website: <http://www.extension.uidaho.edu/scseidaho/>

Of greater concern to barley is the fungal disease that causes barley scald. The past three years have had cool and more importantly, very wet conditions that have favored this pathogen. The disease also is favored by continuous barley production, which allows the pathogen to jump into the new crop from the previous year's residue. The winter barley varieties seem especially vulnerable due to the early season growth during the recent cool, wet springs. The two-rowed winter malt variety ‘Charles’ is very susceptible to barley scald. Protecting the early growth of winter barley from infection with fungicide application should be considered when applying herbicides, especially when following a previous crop of barley. Spring varieties often escape the problem with the majority of growth occurring during the warmer part of the summer, but we have seen substantial and sometimes damaging infections on spring grains as well.

Discounts will occur if damage from scald moves into the heads and is visible on seed.

Bacterial streak in barley occurs regularly in the area. This is a bacterial disease that infects wheat (black chaff) and barley (bacterial leaf streak) and contaminates the heads and kernels. Damage can be severe in years when leaf damage occurs from windy conditions blowing debris against leaves, from sleet or hail damage, from frost damaging leaf tissue or any other physical injury to the leaf surface. Infection can occur even without extensive leaf damage, as the bacteria on plant surfaces infect through the leaf pores (stomata) as well as through damaged tissue. Once the infection is established, it can spread rapidly via splashing rain and irrigation water. This pathogen is hard to control. Reduction of the first infections can be achieved by using clean seed, reducing in-season crop injury, and by not replanting in fields where barley streak occurred the preceding year.

## The Chinese tsunami

*Contributed by the US Grains Council, a non-profit trade association based in Washington, D.C. with a trade office in Beijing, China. The Idaho Barley Commission is a check-off board member of the USGC.*

China's shift from exporting corn to consistently importing it is occurring faster than many expected or than the official numbers suggest, according to sources at the U.S. Grains Council (USGC).

Both Erick Erickson, USGC special assistant for evaluation, and Mike Callahan, senior director of international operations for Asia, cite aggressive growth in livestock production and corn processing as key factors changing China's export status.

"Population size, growth, economic growth, and urbanization are all drawing people away from the farms and driving food demand," says Erickson. "People have more money and they are spending it on meat, milk, and eggs."

China's fast-paced growth in per capita income is driving demand for the full range of animal-based food product, prompting a shift to intensive, modern livestock operations that depend on high quality compound feeds.

Food safety concerns and livestock disease outbreaks are also expediting that transition.

Most of the livestock growth is in swine, followed by poultry, he reports, and the growth isn't limited to greater numbers of animals, since increased commercial feed production requires more feed grains.

The rapid expansion in Chinese corn processing caught everyone by surprise, according to Callahan, who says the 60 to 70 million metric tons (mmt) of corn now going into processing would be even greater if the government hadn't "put on the brakes." He notes that much

of the output is industrial starches, chemicals, and feed ingredients like lysine – not ethanol.

The Chinese government is still officially committed to keeping China self-sufficient in commodities like corn, but both Callahan and Erickson question whether that is feasible.

"The USDA adopts China's official figures, which show ending stocks increasing for the past three years, but we don't think that's right," says Erickson. "We don't think production is as strong as officially reported, which is why we saw significant corn imports in 2010. There's lots of expectation that China will be a major importer this year as well."

"You have the livestock industry moving ahead faster than the government planners can keep track of," reports Callahan. "Some analysts are saying China may be headed for some major grain shortfalls sooner rather than later. I think they are in serious straights right now in terms of strategic reserves of corn. I think the numbers have fallen faster than they realize."

In addition to nearly 1.2 mmt of corn purchases last market year, he notes that China imported three mmt of distillers dried grains with solubles (DDGS): "If it weren't for the current antidumping case against DDGS, I think they would have imported that much already by this April."

Both men agree that China's capacity to increase corn production is restricted. While there is potential to increase yields, Callahan sees water supplies, land availability, and China's reluctance to adopt biotechnology as constraints.

The acreage to produce corn is more likely to shrink than expand, according to Erickson: "Our view is that their demand will grow rapidly but their yields will grow modestly."

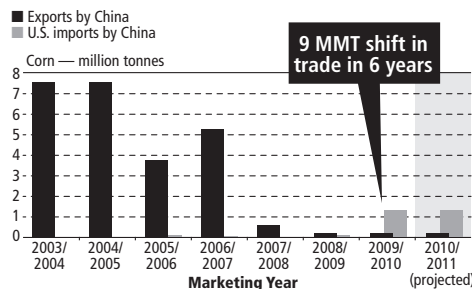
"I think we're getting a lot closer to the point where a number of people in China will be more candid about how much grain they need, and that's the kind of signal that can be important to U.S. growers," Callahan concludes. "China could become the number one destination in the world for feed grain exports."

Such a change would have major implications for world grain markets, affecting the entire gamut of feed grains, not just corn. In the short term, the impact will depend in part on how and when China ramps up purchases.

"We can adjust total production only once each year – at planting," Erickson explains. "If China does not send clear signals about its pending import needs, U.S. production may be caught off-guard by unexpected large Chinese purchases. That is why it is so important that China send clear market signals, and that U.S. producers read those signals correctly."

"In the longer term, it will mean a whole new demand picture we've been eagerly anticipating for decades. After last year's purchases, and with the signals we are receiving this year, it is now clear that China's shift to becoming a major corn importer is upon us," Erickson concludes.

China corn exports/imports from the U.S.



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