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NORTHARVEST BEATTERDWER

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Features

The Heat Cranked Up, Water Spigot Turned Down:

Crop outlook reports from around the Northarvest region

Harvest Losses, Undercutting Versus Direct Cutting:

NDSU agronomist Terry Gregoire examined bean fields harvested with both methods last year for comparison.

Chippewa Valley Bean: From a 150-cow dairy next to a frog pond to a vertically-integrated bean business with about 30% of the U.S. dark red kidney market

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Dry Bean Fact

Research on corn can be used to estimate the storage moisture content and storage time for edible beans. The equilibrium moisture content of edible beans is similar to corn, so expected recommended storage moisture contents should be similar. The maximum allowable storage time for 18% moisture corn at 50 degrees is 3.4 months. Cooling the 18% moisture corn to 40 degrees extends the maximum storage period to about 6.1 months. Therefore, edible beans can be stored at 18% moisture content during the fall and winter if they are cooled with an aeration system so they are no warmer than

50°F in October and 30 degrees in November. See more page 19. **COVER PHOTO:** Kory Koester, Glyndon, MN

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BeanBriefs

ITC: Lifting Restrictions Would Increase U.S. Ag Sales to Cuba

The U.S. could provide more than half of Cuba's agricultural, fish, and forest product imports if certain U.S. trade and travel restrictions to Cuba were lifted, the U.S. International Trade Commission (ITC) details in a new report, U.S. Agricultural Sales to Cuba: Certain Economic Effects of U.S. Restrictions (http://hotdocs.usitc.gov/docs/pubs/332/pub3932.pdf)

An independent fact finding federal agency, the ITC examined the effects of U.S. trade and travel restrictions on Cuban purchases of U.S. agriculture products at the request of the U.S. Senate Committee on Fi-

nance. Highlights of the report:

- In 2000-01, U.S. agricultural exports to Cuba were negligible; however, they grew rapidly, and by 2004, the U.S. was Cuba's largest supplier. Although the value of U.S. exports has fallen slightly since then, the U.S. still supplies more ag products to Cuba than does any other country, accounting for approximately 30% of Cuban imports in 2006.
- U.S. regulations, such as those that require the Cuban government to pay for U.S. ag products in cash or through letters of credit drawn on third-country banks, raise the cost of U.S. goods for Cubans and likely limit U.S. sales. Other factors that increase costs are port delays; high transport charges owing to limited shipping routes; foreign exchange transactions,

exacerbated by the need for third-country financing; and the uncertainty surrounding visas for Cuban officials to inspect U.S. agriculture production facilities.

- About 171,000 U.S. citizens visited Cuba in 2005. According to Commission estimates, in the absence of U.S. travel restrictions, between 550,000 and one million U.S. citizens would visit Cuba annually. This increase in U.S. travel would likely increase demand in Cuba for more and better quality food for tourists as well as for Cuban citizens who work in tourism and related services.
- Eliminating restrictions on trade, particularly those related to export financing, would likely have a larger impact on U.S. ag sales than lifting the travel restrictions on U.S. citizens. This

is because most food imported from the U.S. consists of bulk commodities that are sold to Cubans rather than foods that are sold to tourists. With the elimination of all such restrictions, U.S. exports to Cuba could almost double from their 2006 level

• All U.S. ag commodity sectors would likely benefit from the lifting of the financing restrictions on U.S. ag exports to Cuba. The largest absolute gains would be for fresh fruits and vegetables, including potatoes; milk powder, processed foods, and certain meats.

U.S. Could Supply Over Half of Cuban Dry Bean Imports

Lifting the financing regulations likely would increase the

Global Export Market System Resource for Dry Bean Exporters

The North Dakota Department of Agriculture has access to Food Export Association of the Midwest's Global Export Market System (GEMS). GEMS is a database designed to generate product specific trade statistics. The program is an excellent resource for agriculture or food-based companies needing to conduct initial market research or to get answers to product specific questions. For more information about what GEMS can do for you or to receive a free GEMS market report, contact Stephanie Fox at 701-239-7211 or email at slfox@ nd.gov.

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value of Cuban purchases of U.S. dry beans by between \$9 million and \$21.9 million above the \$20 million of U.S. exports to Cuba in 2006, according to the ITC. Removal of travel restrictions to Cuba is likely to have a small impact on U.S. sales of dry beans to Cuba, as few dry beans are sold to the Cuban tourist sector, and would increase total U.S. dry bean exports by between \$100,000 and \$400,000 above the 2006 level.

Elimination of both the trade and travel restrictions is likely to increase U.S. dry bean exports by between \$9.3 million and \$22.2 million above the 2006 level of U.S. exports. Under this scenario, U.S. dry bean exporters may supply between 37 and 55% of Cuban dry bean imports.

Cuba is a large consumer of dry beans, as they are an

important source of non-meat protein in the Cuban diet. In 2006, Cuba imported \$79 million of dry beans, of which the U.S. supplied \$20 million (25%). In 2006, green peas and pinto beans each accounted for about 40% of U.S. dry bean exports to Cuba, with lentils (11%) and yellow peas the remainder. Cuba was the fifth leading U.S. market for dry beans in 2006.

The ITC notes in its report that U.S. exports of dry beans have risen over the past several years, and become more price competitive in world markets with other competitive global suppliers, such as Canada. U.S. dry bean exporters compete mainly with Canada and China in the Cuban market. For many years, Chinese dry black and pinto beans were priced lower than U.S. beans in the Cuban

market, "possibly because of government assistance to Chinese producers," according to the ITC.

Currently, U.S. beans shipped to Cuba have a significant ocean freight advantage over Chinese beans, and have become more price competitive in Cuba since early 2006. Ocean freight costs of U.S. products from New Orleans to Cuba are lower than ocean rates for the Canadian product from Thunder Bay to Cuba, but internal U.S. rail costs to transport Upper Midwestern beans and peas to the U.S. Gulf ports are higher than those faced by Canadian growers to Thunder Bay. Nevertheless, U.S. peas and lentils have become more price competitive with Canadian products in recent years in third country markets, partly aided by the revalued Canadian dollar relative to the U.S. dollar, according to the ITC.

New Great Northern Line Resists Bacterial Disease

A new germplasm line named "ABC-Weihing" is now available for breeding high-yielding varieties of great northern beans that can resist common bacteri-

al blight. Caused by the pathogen *Xanthomonas campestris* pv. phaseoli, bacterial blight is an endemic disease that can affect bean crops. Antibiotic treatment, clean-seed programs and sanitation are standard control measures. But crop resistance is the keystone defense, notes USDA-ARS geneticist Phil Miklas, Prosser, Wash.

In susceptible bean plants, disease symptoms include large brown blotches with lemonyellow borders on leaf surfaces and small discolored seed in infected pods. Severe outbreaks can cause yield losses of up to 40% in susceptible crops.

Miklas and Carlos Urrea, a University of Nebraska bean breeder who is handling seed requests, developed ABC-Weihing using marker-assisted selection, a method of detecting inherited genes that is faster than conventional screening of plants for disease resistance and other traits. ABC-Weihing is the offspring of several crosses the scientists made, starting in 1997, between a Great Northern bean cultivar and "XAN 159," a germplasm breeding line.

In greenhouse tests, ABC-Weihing also resisted eight

Continued on Page 7

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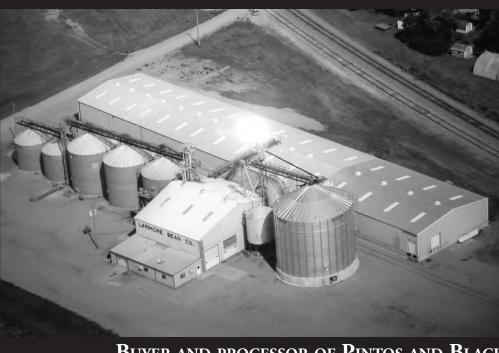
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USDA Geneticist Phil Miklas examines the results of an earlier experiment in breeding disease resistance into bean plants.

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strains of bean rust, and all nonnecrotic strains of bean common mosaic. ABC-Weihing's upright growth also helped protect it from soilborne assault by white mold. Other features include white flowers that bloomed 45 days after planting and seed that was slightly larger than "Matterhorn," a commercial check variety used in trials in North Platte, Neb., Carrington, N.D., and elsewhere. In those tests, ABC-Weihing had an average seed yield of 1,869 pounds per acre versus 1,896 pounds per acre for Matterhorn.

Estimating Dry Edible Bean Yields

You can estimate dry bean yields by knowing the number of seeds per pod, pods per plant and plants per 1/1000th of an acre. At the same time of counting seeds and pods, the maturity status of each should be determined. If a seed or pod will not mature, it shouldn't be counted.

Then count the total plants per 1/1000th acre to complete the data collection.

Within a representative and uniform plant stand, randomly select five plants each from at least five randomly selected locations in the field. Keeping all plant data separate, pull and count the pods from each plant and then count the seeds to determine average seeds per pod for all five replications. These data are combined with the average number of plants per 1/1000th acre.

Average number of seeds per pound	
Kidneys	900-1000
Pintos	1400
Great Northerns	1600-1800
Pinks/Small Reds	1600-2000
Navies/Blacks	3000

Seeds per pound can vary 10-20% for different varieties within a bean class. If available,

use reported estimates for seed number per pound for your variety. The accuracy of yield estimate can be improved by counting seeds and pods from at least 10 plants per replication. **Calculations**

- 1. (Average seeds per pod) x (average pods per plant) = average seeds per plant.
- 2. (Average seeds per plant) x (plants per 1/1000th of an acre) $x(1000) \div by seeds per pound$ of the variety = yield in pounds per acre.

Apply Desiccant When Pods At Least 80% Yellow/Brown

NDSU advises applying both paraquat (Gramoxone Max, Gramoxone Inteon, both restricted use products) and Aim when at least 80% of pods are yellow/brown. Apply when no more than 40% (bush type beans) or 30% (vine type) of the leaves are still green. Sequential applications may be needed, and thorough coverage is essential.

Keep in mind that a desiccant doesn't speed up crop maturity; it just shortens the time between maturity and harvest. Thus, the crop must be physiologically mature (ready to swath) before a desiccant is applied.

Allow a seven day pre-harvest interval for paraquat and three days for Aim. Desiccants can be expected to perform more effectively in warm, sunny conditions compared to cloudy, cool conditions.

Roundup (glyphosate) is labeled for late season weed control in edible beans, and is not labeled for use as a crop desiccant. Apply glyphosate after dry bean pods have turned yellow and leather in texture; at hard dough bean seed stage and 30% or less seed moisture. Allow a 7 day preharvest interval, and do

Continued on Next Page

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not apply to dry beans grown for seed, because reduced germination/vigor may occur.

Observations on the performance of Aim, based on limited research at NDSU:

- Aim does poorly with vine desiccation.
- Aim at 1 oz/ac usually gave similar desiccation as paraquat at 1 pt/ac, but Aim at 2 oz/ac + MSO gave around 5% greater desiccation than paraquat.
- Aim applied with MSO at 1 qt/ac usually increased desiccation as compared to adding petroleum oil (COC) at 1 qt/ac.
- Aim at 2 oz/ac gave about 10% greater desiccation than 1 oz/ac at 5, 7, and 14 days after application.

Keep in mind that Valor (flumioxazin) will not be registered for dry bean desiccation use until the 2008 growing season.

Note on Early Fall Soil Sampling

There is no reason to delay soil sampling following small grain harvest, notes NDSU extension soils specialist Dave Franzen. Due to the low N content of the residue, the chances of large N releases either from the residue or the soil following harvest is low. Early sampling after small grain harvest increases the accuracy and consistency of the 0-6 inch soil core, and allows the grower to have time to plan an N rate if fall N application is planned. However, delaying soil sampling after other crops, including canola, field peas, and dry edible beans, is recommended until the soil cools, usually late September. This is recommended because some soil organic matter/residue mineralization may take place between harvest and sampling.



Buyers and Processors of Dry Edible Beans

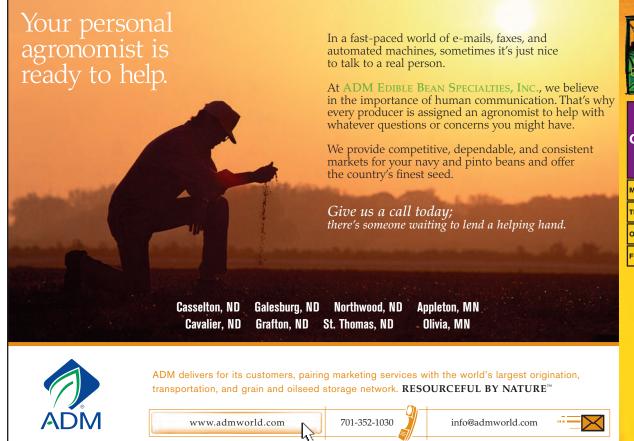
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The Heat Cranked Up, Water Spigot Turned Down

Still, many bean fields were looking good heading into August, with generally better moisture conditions north, but needing rain to build yield

After a wet start to the growing season, the heat cranked up and the water spigot turned down for many in the Northarvest bean growing area. Some observations as the calendar flipped to August:

"The bean crop looks good in my area but it is quickly getting dry," said Brian Love, Euclid, MN. "The hot dry weather is starting to stress the plants and if we do not get some rain soon it will hurt the yields."

Jim Zenk who farms near Renville, MN, reports that drought in his area will result in low edible bean yields, if there will be a crop to harvest at all. Mike Beltz, Hillsboro, ND, had better news to share heading into August. "The edibles in my area look good right now, although while it was hot it was also humid, bad for people but easier on the crop then hot and dry would have been. Hopefully the next hot spell will be the same. Right now we are at the make or break stage for the crop, while it looks good now that could change, given current conditions I would expect an average to above average crop."

Alan Juliuson notes that the beans in his area (Steele County) near Hope, ND were affected by a large hail storm that passed through in July. "Where it hailed they are completely gone.

The ones that were not touched, look very good. A little rain now would be welcome and make the crop a nice one. Heat did not seem to affect us, the rows are filled in and great pod set is occurring. Prices are strong and will remain strong, especially next year where a serious battle for acres will continue," he says.

Dealers in the Northarvest area say too that dry weather conditions seem to be the theme with this year's dry edible beans. Many bean fields were looking good heading into August (with generally better moisture conditions north) but needing rain to build yield, Some end-of-July dealer observations:

The Bean Mill, Perham, MN

Bean grown in the area: dark red kidney, light red kidney & pink

Dry beans are on schedule. The dryland beans (pink) look like they might be below average because the area is short on water. The quality of the beans range from great to pretty bad. Because is it sandy soil, the rain is needed frequently.

Bird Island Bean Co. LLC, Bird Island, MN

Beans grown in the area: navy, black turtles and kidney

The crops look fairly good but they are awful dry. There are a lot of pods on the plants

Continued on Next Page



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but rain is needed and fairly soon. There are about 600 acres that may have to be destroyed because of drought. The farmers had to replant this year because of winds earlier this spring. Compared to last year, the crop looks below average.

Red River Bean of Oslo, MN

Beans grown in the area: pintos and blacks

The crop looks real good. We did have hail earlier this spring but the beans seem to be coming around. Plus, the Red River overflowed its banks and took out some acres as well. It won't be a bumper year but it should be a good year.

Lee Bean & Seed, Inc., Borup, MN

 $Be ans\ grown\ in\ the\ area:black$

The crops look good and it should be an above average crop this year. There were some fields that received too much rain early on. These were drowned out but were replanted and have recovered pretty well.

Mayport Farmer's Coop, Mayville-Portland, ND

Beans grown in the area: blacks and pintos

The area is a little dry but the beans look good. The dry beans look better than last year and harvest looks to start on time which should be the beginning of September.

Thompson USA Limited, East Grand Forks, MN

Beans grown in the area: navy, blacks, kidneys and pintos

The dry beans look good in the area and should be average to above average. We are dry and could use a shower or two. We missed most of the bad weather that occurred earlier in the season with only minor pockets that were affected. The beans look as good, if not better than last year with harvesting looking to be on time this year.

Joliette Ag Systems, Inc, Pembina, ND

Beans grown in the area: pintos and blacks

The dry beans look average to better-than-average this year. There were some drowned outs but have since dried up. We didn't receive any damaging weather early on and no excessive rain. We did have (some

timely rain) and so the pods should fill up nicely before harvest. We needed it because the topsoil was dry. The ground here is heavy and not the ideal ground for dry edibles and we don't get the yields that some do but it is looking good for this area.

Engstrom Bean and Seed, Leeds, ND

Beans grown in the area: pintos and blacks

There may be some aborted blooms on some of the earlier planted beans, but overall the beans are looking good, with fairly timely rains.

ADM Edible Bean Specialties, Casselton, ND

Beans grown in the area: navies and pintos

Some bean fields in the western part of Cass County hailed out but overall it's looking pretty good, dryness isn't as bad here as it is in some other areas. Heat is speeding development along and rain will be needed to fill some of those later pods that are setting.



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Harvest Losses, Undercutting **Versus Direct Cutting**

NDSU agronomist Terry Gregoire examined bean fields harvested with both methods last year for comparison.

What's the difference in pinto bean seed loss after harvest, if any, between underground/undercutting and straight cutting techniques? Other than anecdotal estimates and observations, there hasn't been any data that might help compare losses under the two cutting methods, especially given the increasing interest in direct harvesting.

Terry Gregoire, NDSU Extension area cropping system specialist, Devils Lake, examined bean fields harvested with both methods last year to get some comparative numbers. Following harvest, he surveyed 21 dry bean fields chosen randomly in Towner, Ramsey, and Benson, three N.D. counties in the Devils Lake region where dry beans, mostly pintos, have become a stable feature of crop rotations. Eleven fields were undercut and 10 were direct cut without undercutting roots.

A metal hoop of 1.23 sq. ft.

was randomly tossed either behind the combine on the harvested residue pattern or in between the combine residue pattern. Five sampling locations were selected in both areas for a total of 10 samples. Beans were

counted as shelled or those left in a pod. Pounds per acre were calculated based on 1,600 seeds/lb for pinto beans and 2,300 seeds/lb for the one field of black beans surveyed.

The area represented by each

sample varied among fields and was estimated by measuring the residue distribution width behind the combine. This distance was used to calculate losses directly behind the combine and the remaining width used to calculate losses between the residue swaths.

Several methods are currently used to underground cut/ swath/pick up dry beans, and all these techniques were grouped together in this study. There are also several methods to cut dry beans above ground, such as swathing, flex head or floating header bars, and all were grouped together as 'direct cut' for the purpose of this survey.

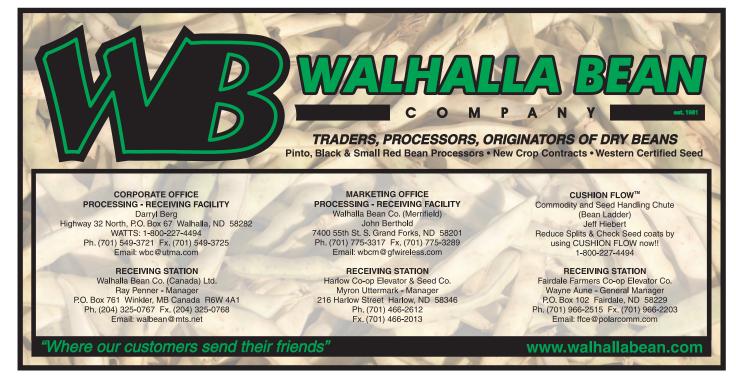
Table 1. Harvest losses (lbs/A) in pinto beans cut underground

	Sample locations									
	Between co	mbine residue	In combin	Total loss						
	In pods	As seeds	In Pods	As Seeds						
R1	20	40	21	75	156					
T1	16	8	37	90	151					
T2	0	0	64	52	116					
Т3	0	20	16	46	82					
T4	4	16	26	148	194					
В6	0	0	0	34	34					
В7	0	43	0	129	172					
ВВ	0	8	8	73	89					
RA	0	33	34	221	288					
RB	0	0	0	10	10					
RC	0	10	0	19	29					
Ave.	4	16	19	83	120					

Losses can be lowered under either method

As might be expected, average

Continued on Next Page



harvest losses were higher for direct cut methods than undercut methods due to a larger seed and pod loss measured in the area between combine harvest swaths. Still, Gregoire notes he was a bit surprised that the losses for aboveground methods were as low as they were; that the numbers gap in losses would have been even larger between the two techniques than the averages in this survey.

Losses behind the combine

were similar for the two methods, indicating that direct methods have a tendency to shatter more in the cutting and gathering operation that was undercut. The range of losses was also greater for direct cut methods than undercut methods.

However, the data indicates that losses can be lowered by management under both methods. The best three undercut fields with the lowest losses (34, 29, 10 lbs/ac) averaged a total

harvest loss of just 24 lbs/ac, while the average for the fields with the worst losses (288, 194, 172) was 218 lbs/ac.

There was a sizeable gap in the three best and worst direct cut bean fields as well: direct cut beans averaged 101 lbs/ac for the best three fields (118, 102, 84 lbs/ac) while the worst three averaged 347 lbs/ac (599, 263,

Regardless of the harvest method, it appears that about

200 lbs/ac could be saved by using the best harvest techniques for the situation. Based on grower experiences and observations, Gregoire says these are factors that can reduce harvest losses:

- · Plant an upright bean architecture.
- Establish uniform populations and uniform maturities, using desiccants when appropriate to reduce maturity differences.

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- Cut timely when pods are "tough" at correct maturity and when humidity is higher, such as following dew or rain events, or at night.
- Use rollers to submerge rocks.
- Use brush guards and keep sickle blades sharp.
- Take advantage of improved reel designs for swathers and combine headers to reduce shatter losses. Grower experiences with direct cut headers suggest that the addition of an air reel and supplemental lifter guards to a flexible cutterbar can reduce loss to 5 to 10% of yield.

Dry Edible Bean Harvest tips

Begin combining when beans reach 18% moisture content, with a combine cylinder speed run only fast enough to do a complete threshing job. It is difficult to give one cylinder speed, as diameters of cylinders and rotors vary from 17 inches up to 30

Table 2. Harvest losses (lbs/A) in pinto beans cut above ground

		Sample loca				
	Between combine residue		In combine residue		Total loss	Comments
	In pods	As seeds	In Pods	As Seeds		
Benson 1	0	159	50	54	263	Swathed & harvested
2	0	79	23	78	180	Swathed & harvested
3	0	123	0	43	166	Direct cut
8	3	6	24	51	84	Upright pinto direct cut no-till
9	105	189	70	235	599	Pentium variety prostrate growth
10	0	6	23	73	102	Black bean variety
Benson A	75	53	0	40	168	Direct cut upright pinto
Ramsey 1	6	53	5	54	118	Air assist reel upright variety
Ave	19	80	20	68	210	Combined fields only
Benson 3	0	102	0	25	127	Just swathed (not combined)
4	0	29	0	23	53	Just swathed (not combined)

inches in diameter. It is usually best to set cylinder speed as slow as possible and check to be sure that pods are threshed to allow bean removal without excessive splits and checking.

Maintain as large a concave clearance as possible and still do a good job of threshing. As beans dry down,

Table 3. Harvest losses (lbs/A) in pinto beans

Sample locations									
	Between o	combine residue	In combin	Total loss					
	In pods	As seeds	In Pods	As Seeds					
Above	19	80	20	68	210				
Below	4	16	19	83	120				

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cylinder or rotor to concave settings should be increased. Check your operator's manual for recommended cylinder speed and concave setting. Manufacturer's recommendations apply to average or normal conditions and may require variation to meet specific field conditions.

Crowd the combine cylinder to near maximum capacity without overloading. To do this, either use a faster travel speed or put more rows in the windrow. The additional straw going through the threshing mechanism will help cushion the beans and prevent

Set the adjustable chaffer at 5/8 inch and the sieve at 7/16 inch. This should allow the threshed beans and some hulls to fall through the chaffer, and the cleaning sieve will allow only threshed beans to fall through to the grain auger. Use a relatively high fan speed and direct the blast toward the forward one-third of the cleaning shoe. Check your operator's manual for specific recommen-

dations.

Check the tailings return periodically. Note the quantity and composition of the material being returned to the cylinder for rethreshing. Any appreciable quantity of threshed beans in the tailing return indicates that the adjustable chaffer is set too tight. Completely threshed beans returning through the auger for rethreshing will increase the amount of split beans and checked seedcoats.

Monitor the grain tank for dirt and foreign material, and for beans that are split or have checked seedcoats.

Excess dirt and chaff generally indicate that the adjustable sieve is adjusted too wide or that the fan blast is inadequate or improperly directed.

Common reasons for excessive checks and splits:

- The cylinder speed is too high.
- The cylinder concave clearance is too small.
- Too many concave bars or grates are being used.

Continued on Page 15





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 Too many completely threshed beans are being returned through the tailings sys-

Try to avoid dropping beans from great heights in unloading and handling.

Beans check and crack when dropped, particularly on hard surfaces and when dry. Cushion or deflect the fall of beans whenever possible. Keep elevator flight chains snug so that flights do not ride on beans.

How to Measure Harvest Losses

Five simple steps can provide a good harvest loss estimate:

- · Locate three random sites in the field
- · At each site, outline an area that is 1 ft. in the direction of equipment travel and is as wide as the effective width of the implement. For example, if a combine is picking up windrows containing 12 30-inch rows, the width of the measurement area should be 30 feet. Examine the

Table 1. Field loss based on the average number of seeds lost per square foot of soil and seed size of the variety harvested.

	Average no. of seeds lost per square foot									
Seed Size	0.5	1.0	5.0	10.0						
Seed/lb	pounds/acre field loss									
800	27	55	272	545						
1200	18	36	182	363						
1600	14	27	136	272						
2000	11	22	109	218						
2400	9	18	91	182						
2800	8	16	78	156						

Use the following information to estimate the number of seeds per pound for the specific market class of the harvested bean:

Market Class	Seeds per Pound
Kidney	800-1000
Pinto	1200-1400
Great Northern	1400-1800
Pink/Small Red	1600-2000
Navy/Black	2400-2800

entire width of the implement pass, not just behind the threshing section of the combine where loss can be concentrated.

• Search the soil surface and

through any soil loosened by harvest implements within the outlined area for seeds and unthreshed pods. Count all bean seeds.

- · Divide the number of seeds found by the number of square feet within the outlined area. This will provide the average number of bean seeds lost per square foot. Take an average of the three areas sampled within the field.
- Use Table 1 to convert average number of seeds lost per square foot to pounds of seed lost per acre for specific seed sizes.

For example, if a sampled area over the full effective width of an implement pass averaged 1 pinto bean seed per square foot, the field loss would be approximately 36 lbs/ac, assuming 1,200 seeds/lb. To extrapolate to 3 seeds/sq. ft. for the same seed size of 1,200 seeds/lb, one could multiply 3 by 1.0 by 36 lbs/ac = 108 lbs/ac field loss.

Dry bean harvest tips and measuring harvest loss information from the NDSU Dry Bean Production Guide, online at www.ag.ndsu.edu/pubs/ plantsci/rowcrops/a1133-1.htm and www.northarvestbean.org.

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Chippewa Valley Bean

From a 150-cow dairy next to a frog pond to a vertically-integrated bean business with about 30% of the U.S. dark red kidney market - "Not bad for a small family business in West Central Wisconsin"

The well manicured wooden sign that stands at the crook of the road leading into the Doane farm points to the two things this operation is most proud of – its family heritage, and their bean business.

Next year, Doane Ltd will celebrate 150 years in business – it was established in the rolling hills near Downsville, Wis. (about 100 mi east of St. Paul) in 1858. Seven generations of Doanes have been operating this farm.

For many years, the family operation was typical of many in Wisconsin, producing alfalfa, corn, and a 150 cow dairy. However, Russell Doane did

something in 1969 that would change the Doane farm forever: he grew a field of edible beans. He experimented with growing a few different classes for several years, then settled in with light red and dark red kidneys.

It wasn't long before the Doanes got involved with processing the beans they produced. "We quickly saw the need to clean and market our beans to canning companies throughout the United States," says Cindy Brown, Russell's daughter. So in 1973, Chippewa Valley Bean (CVB) began as a processing and marketing arm for the Doane farm.

Today, the dairy cows are

Farm Bill: So Far, So Good for Dry Beans

Along with her role as vice president and marketing director for Chippewa Valley Bean and Doane Ltd, Cindy Brown is active in national and international dry bean issues. Brown, who has a degree in business administration from the University of Wisconsin - Eau Claire, has served as chair of the U.S. Dry Bean Council since January, 2006.

A key issue is the new farm bill, which figures to be pivotal for the U.S. dry bean industry. So far, so good, she says.

The House version maintains the fruit and vegetable (FAV) planting restriction for nonprogram crops on program crop acres – the USDBC's number one farm bill priority. The dry bean industry may also benefit by new funding for specialty crops, and a program focused



Cindy Brown

beanbased health solutions aimed at boosting bean consumption.

"The Northarvest folks have really been instrumental in the farm bill process. Working with (House Ag Committee Chair) Collin Peterson, they've had input early on," Brown says.
"We still have the Senate side to work through this fall, then both bills to be conferenced and signed into law, but we're really pleased with how things are going at this point."

Another key issue the US-DBC is focusing on is urging lawmakers to maintain the current system of food/commodity donations for international food aid, rather than convert it to a cash-based assistance program. Brown testified in Congress earlier this year that some (such as U.S. export competitors) want the U.S. to move away from in-kind food aid donations.

But politically, she says there is more support amongst the American public for direct food aid rather than a cash handout. And food aid not only helps manage oversupply, but helps promote the consumption of U.S. products such as dry beans overseas.

In a related issue, the USDBC is challenging a USDA decision to lower the moisture specifications for U.S. dry beans used for food aid, from 18% to 13.5%. Says Brown: "That's unreasonable, and prevents many of our elevators and handlers who don't have that drying capacity to participate in the food aid market." – Tracy Sayler

long gone (since 1976, actually) and CVB's bean business extends well beyond the fourcounty Chippewa Valley area in Wisconsin it was originally named after. CVB continues to grow its own kidneys under irrigation, about 3,500 acres, in rotation with either corn or potatoes, in a land trading arrangement with the R.D. Offutt Company. And CVB today processes and markets about 30% of the total dark red kidney beans produced in the United States.

Chippewa Valley Bean's onfarm processing facility can store and process about 400,000 cwt per year, customizing product per customer specifications. This capacity allows CVB to ship a steady, dependable year round supply that also allows for prompt shipment on short notice. CVB also buys beans from growers in the four state region; contracting from a large geographic area helps ensure supply. CVB currently sells about 60% of its beans within the U.S. and exports the bal-

CVB has its own plant breeding program, which it started in 1981. The initial goal was to de-

velop a kidney variety with better genetic resistance to root rot. The effort accomplished its goal, and the program continues to develop kidney varieties today, with an emphasis on improved genetic resistance to white mold and various blights.

The breeding effort helps ensure kidney varieties with the agronomic and processing characteristics that CVB prefers. CVB sells seed from the kidney varieties it develops to other kidney growers, which not only helps ensure supply (those who grow CVB kidney varieties also contract their production with the company) but in a sense, a consistent, identity-preserved supply. CVB knows what kind of kidneys to expect coming from other producers under contract, since CVB developed the varieties they're growing.

To complete the vertical integration on both ends of the business, CVB offers gourmet soup mixes packaged under the Good Earth Café brand. There are currently two products, Peppered Pinto and Chippewa Chili. "Not bad for a small family business in West Central Wisconsin," says the recipe tag in the background information about CVB that



comes with the product.

The Doanes who pioneered this farm site 150 years ago - near a frog pond as a water source - would be surprised at the enterprise it has become today, and pleased that it remains a family-owned business. Each of the family members involved with the business have their roles. Russell still heads up the company as president. Cindy does the marketing, sister Ruth Anne (Hofland) manages quality control and accounting, and brother Brian is involved on the farm end. Business partner

Bob Wachsmuth plays a key role with the farm and production contracts.

"We all have our general areas of responsibility that fit our personalities and likes," says Cindy. "We don't overstep our areas yet all of us have a say and are totally informed about what's going on. As a farm and business, we're all very much involved, and still friends at the end of the day."

- Tracy Sayler, with information provided in part through Beans for Health Alliance, now a part of the U.S. Dry Bean Council





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1100 Holland Road Suffolk, VA 23434 Tel. # (757) 539-0231 What I've Learned About the Bean Industry and Other Things (So Far)

Russell Doane, President, Chippewa Valley Bean and Doane Farm Ltd

Nearly 40 years ago, Russell Doane began transitioning one of Wisconsin's oldest family farms (started in 1858 near Downsville) from a dairy focus to dark red kidney beans. The operation today processes and handles about 30% of the total dark red kidney beans produced in the United States.

We began center pivot irrigation here in '67. It became evident to me that we needed to find a crop that we could do well, without competing with the very good corn and soybean farmers in the Cornbelt.

In the fall of '68 I met a Mennonite fellow by the name of Russell Wilson. He moved from Michigan to Barron, Wis. I'd seen an article written about him talking about dry edible beans. So I got a hold of him one day and that was the first time I had ever seen dry edible beans grown. It looked like something that we could have a bit of a leg up here on these irrigated sands, because edibles really don't like to have their feet wet.

We started with 500 acres of kidneys in 1969 and a few navies. It seemed to me we could successfully grow a dark red kidney here and compete very well. We also grew machine harvested cucumbers from '71 to '76. By the time 1976 rolled around I felt we needed to make a decision whether to go with cucumbers or beans. There was too much overlap, the cucumbers needed attention when bean harvest started. I liked the idea of a crop that was dry, that we could store dry and market it throughout the year and longer if necessary. That's when we left the cucumber business and went with beans.

I'm one of these old farmers – I like land. In my lifetime, with center pivot irrigation, the land in this area that has become more valuable for farming is the drier sands. We have a larger window of fieldwork and we can do it with less machinery. We can have an inch of rain in the morning and be out cultivating the next morning.



Russell Doane

A major factor for increased consumption of dark red kidneys was the salad bar. The salad bar concept started catching on right about when we got into the business, in 1969. Consumption has about tripled since then.

Quality, quality. Since the best market for the dark red kidney is the salad bar market, every bean in that can needs to have no mechanical damage to it, and much of that has to do with the harvesting and handling of the bean.

We have a roster of very

good growers we contract with. Sometimes there are producers, you learn quickly who they are, that you don't continue to work with. But by and large most are very ethical, very high caliber.

There's a premium on timeliness. We have a relatively narrow window of optimum planting and we also have the moment that bean is ready to be harvested. I use the line that 'kidney beans aren't like Irish whiskey, they don't get better with age.' That's exactly true. The first time that kidney bean is ready to harvest is the best time to harvest.

I feel so fortunate to be involved with the R&D side of our business at this stage of my life. As a company we've invested a lot in variety research and development. That's because with dark red kidneys, we have a lot of eggs in one basket. But as one old timer once told me, 'there's nothing wrong with putting your eggs in one basket, you just gotta keep a close eye on the basket.'

Recommended Storage Moisture Content for Dry Edible Beans

There are limited studies on the allowable storage time of edible beans, but the results from corn can be used to estimate the storage moisture content and storage time for edible beans. The equilibrium moisture content of edible beans is similar to corn, so expected recommended storage moisture contents should be similar.

The maximum allowable storage time for 18% moisture corn at 50 degrees is 3.4 months. Cooling the 18% moisture corn to 40 degrees extends the maximum storage period to about 6.1 months. Therefore, edible beans can be stored at 18% moisture content during the fall and

winter if they are cooled with an aeration system so they are no warmer than 50°F in October and 30 degrees in November. Lower moisture contents should be used if longer storage periods are desired or the beans cannot be cooled to the specified temperatures. Corn at 16% moisture is expected to store for about nine months at 60°F, which is the basis of the 15.5% moisture content recommendation during fall through spring.

A moisture content of 16% should normally be considered the maximum recommended short term storage moisture content for edible beans.

For long-term storage the moisture content must be

low enough to permit storage without deterioration at typical summer temperatures. For example, the recommended long-term storage moisture content for wheat is normally at about 13%. This keeps the relative humidity in the wheat below 65% at 70 degrees, which limits mold growth. The recommendation for edible beans is also about 13% based on the same considerations.

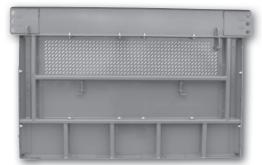
If the beans can be kept cooler, the acceptable moisture content can be increased. If the beans can be kept at 60°F or cooler, the moisture content can be 14% for long term storage.

It is important to follow good storage management practices

such as measuring the temperature and moisture content of the beans at least monthly. Whenever there is more than a 10 degree differential between the average outdoor temperature and the bean temperature during the fall, the beans should be cooled with aeration. This should continue until beans at 16% moisture are cooled at least to 40°F and 18% moisture beans are cooled to about 30°F. Cooling below 30 degrees is not necessary and may increase the potential for handling damage.

From the NDSU Dry Bean Production Guide, <u>www.</u> ag.ndsu.edu/pubs/plantsci/rowcrops/a1133-1.htm.







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MarketOutlook

Bean Market Focus on New Crop Harvest

Harvest area forecast lower both in U.S. and Canada

Market fundamentals remain supportive for dry bean prices, with a decrease in planted acreage in the U.S. and Canada, and a new crop that will be affected by weather damage in some areas.

U.S. dry bean growers planted 1.5 million acres this year, down 8% from both last year and two years ago. USDA's June planted acreage estimate was down less than 1% from growers' plans in March.

Planted acres were unchanged in North Dakota and Minnesota from last year, but decreased in other major producing states: Michigan's planted area was down 11% from last year; Idaho was down 14%, and in Nebraska, dry bean plantings were 29% below 2006. Fourteen of the 18 dry bean producing states have decreased planted acreage from a year ago. In Canada, seeded area to dry beans declined by 15%, according to Agriculture Canada estimates.

USDA estimated acres to be harvested at 1.42 million, down 7% from both last year and 2005. USDA in June estimated North Dakota's dry bean harvest area would decline slightly, from 640,000 acres in 2006

Table 1--U.S. dry beans: Monthly grower prices for selected classes, 2006-2007

	20	006	20	007	Chg. prev. year:		
Commodity	May	June 1/	May	June 1/	May	June	
		Cents pe	Percent				
All dry beans	19.30	19.00	25.90		34.2		
Pinto (ND/MN)	13.50	13.50	22.20	22.00	64.4	63.0	
Navy (pea bean) (MI)	19.50	19.50	22.75	22.75	16.7	16.7	
Great Northern (NE/WY)	17.80	18.00	26.00	26.00	46.1	44.4	
Black (MI)	21.80	22.00	26.50	26.50	21.6	20.5	
Light red kidney (MI)	20.70	20.50	25.88	26.00	25.0	26.8	
Dark red kidney (MN/WI)	20.70	20.50	30.00	30.00	44.9	46.3	
Small red (ID/WA)	19.50	19.50	24.00	24.00	23.1	23.1	
Pink (ID/WA)	19.50	19.50	22.50	22.50	15.4	15.4	
Ratio							
Dry bean/corn price ratio	8.89	8.88	7.44		-16.3		

-- = not available. 1/ Partial month estimate.

Source: USDA, AMS, Bean Market News except "All beans" from USDA, NASS, Agricultural Prices.

to 630,000 this year, and that Minnesota's harvest area would be unchanged from last year, at 135,000 acres. USDA may need to adjust its harvest area estimates, however, due to dry conditions and heat damage in some growing areas.

In Canada, both production and supply are forecast to decrease in 2007-08 because of the lower seeded area and lower yields. Production is expected to fall for all major classes of dry beans in Canada: white pea, pinto, black, dark and light red kidney, cranberry, Great Northern, pink and small red. Exports are also forecast to decrease due to the lower supply. Carryout stocks are expected to fall, with a stocks-to-use of 9%, and average price, over all types and grades, is forecast to increase in Canada because of the lower U.S. and Canadian supply. See more Canadian market analysis online at www.agr.gc.ca/mad-dam.

Certainly, the lower planted and harvested acreage estimate will be supportive to dry bean prices in the U.S. as well, where competition for acres is expected to be just as aggressive among crops in 2008 as it was in 2007. Some predict 2008 will be even more competitive, as soybean carryout will have declined, and the soybean market will need to bid acres back from corn. Meanwhile, other crop markets – dry beans among them – will also need to be com-

petitive to prevent further slips in acreage.

Exports Down, Imports Surge

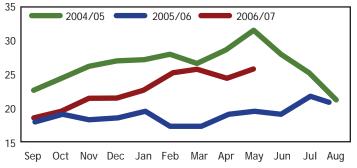
During the first 8 months of 2006/07, U.S. export volume for dry edible beans was down 11%, and with prices up and stocks dwindling for several classes, export volume is likely to shrink further from the strong levels experienced a season ago, according to USDA.

Movement to foreign nations increased notably for black, light red kidney, baby lima, and navy beans, but declined for most others including pinto, Great Northern, and dark red kidney beans. Through April, export movement of U.S. black beans was up 32% – the largest since the 1981/82 season, with Mexico accounting for about 92% of the volume.

Through April, Mexico accounted for 30% of total U.S.

Continued on Next Page

Figure 1. U.S. dry edible beans: Average monthly grower price (cents/pound).



Source: USDA, National Agricultural Statistics Service, Agricultural Prices.

dry bean export volume, up slightly from 28% a year earlier. Although down 7 percent from a year earlier, volume shipped to Mexico was the sixth strongest since 1989, with black beans accounting for 47% of the shipments thus far this year.

Whenever domestic prices of dry beans increase and stocks begin to dwindle, imports begin to move higher. This year has been no exception, as higher prices have led to a 26% increase in dry bean import volume over the first 8 months of the 2006/07 marketing year, according to USDA. Only the

2001/02 season featured September-April import volume larger than this season. Imports are up for several classes including black beans (up 82%), garbanzo beans (32%), and light red kidney beans (29%).

Interestingly, about 17% of dry bean imports so far this year consisted of black beans despite strong domestic production a year ago and heavy export volume this season. Canada (28% of the total), China (23%), Mexico (16%), and Peru (16%) have accounted for the lion's share of dry beans shipped into the U.S. market.

Low-cost black bean imports from China had an average import value of about 23 cents per pound compared with 26 cents for black beans imported from Canada. In general, the U.S. average import value for black beans (26 cents/lb) did not differ much from U.S. exports of black beans, which had an average export value of 27 cents per pound.

Domestic supplies of dry beans are expected to remain limited, and prices above longrun averages in the coming marketing year. Thus, imports will continue to snag an increasing share of U.S. dry bean markets. In 2006, imports accounted for 12% of dry bean net domestic use – up from 6% in 2000 and 4% during the 1990s. Import penetration is projected to reach 13% in 2007.

Dry bean market data courtesy Gary Lucier, USDA ERS economist. See more U.S. dry bean market information in the USDA ERS Dry Bean Briefing Room online: www.ers.usda.gov/Briefing/DryBeans - the next market outlook for dry beans will be issued August 29, then October 25.

Table 2. Dry edible beans: Acreage harvested in selected States, 1994-98 average, 1999-2007

	1994-98 average	1999	2000	2001	2002	2003	2004	2005	2006	2007f	2006- 2007
State											Percent
North Dakota	571.0	570.0	525.0	400.0	690.0	520.0	475.0	565.0	640.0	630.0	-2
Michigan	333.0	350.0	275.0	130.0	265.0	165.0	185.0	230.0	215.0	195.0	-9
Nebraska	191.6	187.0	156.0	148.0	165.0	148.0	110.0	172.0	124.0	95.0	-23
Minnesota	153.3	165.0	150.0	105.0	155.0	110.0	100.0	135.0	135.0	135.0	0
Idaho	108.0	103.0	88.0	73.0	93.0	73.0	78.0	98.0	103.0	88.0	-15
California	125.6	132.0	112.0	85.0	89.0	75.0	57.0	65.0	65.0	58.0	-11
Colorado	152.0	145.0	110.0	105.0	70.0	73.0	67.0	80.0	60.0	50.0	-17
Washington	38.8	36.0	32.0	34.0	44.5	27.5	29.0	48.0	60.5	60.0	-1
Texas	17.3	47.0	16.6	26.4	32.5	44.0	17.5	15.3	18.0	9.0	-50
Wyoming	33.2	39.0	34.0	24.0	29.0	29.0	24.0	33.0	27.5	24.0	-13
New York	34.8	30.2	24.5	22.3	24.5	24.0	23.5	23.0	18.0	17.0	-6
Others 1/	67.0	76.8	93.4	97.3	81.4	58.4	53.3	69.3	71.6	62.4	-13
U.S.	1,825.6	1,881.0	1,616.5	1,250.0	1,738.9	1,346.9	1,219.3	1,533.6	1,537.6	1,423.4	-7

F = June ERS forecast.

1/ Kansas, Montana, Utah, New Mexico(except 2000), Wisconsin (through 2004), Oregon, and South Dakota (beginning in 2000). Source: USDA, National Agricultural Statistics Service, Crop Production, 2006 Summary.

Which 'Facts' Are Full Of Beans?

- 1. Pound for pound, dried beans, also known as legumes, contain nearly as much protein as a steak. True or false?
- 2. Beans are a natural source of folate, which studies show can reduce the risk of heart disease, stroke and certain types of cancer. True or false?
- 3. Beans help reduce cholesterol. True or false?
- 4. Beans protect against heart disease. True or false?
- 5. Because beans have slow-release energy, they should be avoided by diabetics. True or false?
- 6. Pinto beans are a good source of potassium. True or false?
- 7. Baked beans have no nutritional value. True or false?
- 8. The calorie content of one cup of cooked beans is equal to one cup of cooked rice, pasta, or a 7-ounce baked potato. True or false?
- 9. A diet that regularly includes beans is good for circulatory problems. True or false?
- 10. Beans are the only food that fits into two groups on the USDA Food Guide Pyramid: vegetable and protein.

Answers: 1) True. 2) True. 3) True. 4) True. 5) False – bean intake can actually improve glucose control in diabetics. 6) True. 7) False; among the nutrients they contain are fiber, iron, and selenium. 8) True. 9) True. 10) True

Facts Source: Super Foods by Michael van Straten and Barbara Griggs, Northarvest Bean Growers Association. Featured in an article by Gwen Schoen McClatchy Newspapers

TheBeanScene

"Shaped Like A Kidney, But Good For Your Heart. Go Figure"

Lynne Bigwood, Northarvest's home economist, recently participated in and exhibited at the Society for Nutrition Education's 40th annual conference in Chicago.

Extension supervisors and staff, college professors, dietitians and others who are leaders in U.S. nutrition education attend this conference and are among more than 1,000 nutrition professionals who are members of this important national organization.

Interestingly, the SNE sent a letter to House Ag Committee Chair Rep. Collin Peterson at the beginning of the Farm Bill markup, stressing that the SNE believes one of the key purposes of our food and farm policies should be to advance the health and well being of all people in the United States.

The SNE urged Peterson to "give high priority to policies that strengthen nutrition education, reduce hunger/food insecurity, support healthy food choices, and maintain the integrity of the food system while protecting our environment." The SNE also recommended that "Farm Bill policies be redirected to support greater diversity and increase production and market development for 'specialty crops' - the fruits and vegetables that are promoted in the 2005 Dietary Guidelines for Americans."

The House version of the new farm bill does indeed include funding directed at fruits and vegetables, in which dry edible beans may benefit as well.

At the SNE Conference, Northarvest's new "Shaped like a kidney, but good for your



Julie Garden-Robinson, NDSU Extension Service (left) and Northarvest home economist Lynne Bigwood with Northarvest's new Magical Fruit banner display, at the recent Society for Nutrition Education conference in Chicago.

heart. Go figure" banner was on display along with the matching poster, The Bean Cookbook, brochures and teaching curriculum.

Bigwood notes that one attendee who made it a point to stop by to get a copy of Northarvest materials is currently writing new Family and Consumer Science textbooks. Many others were enthusiastic about receiving materials that will help them encourage their students and clients to eat more beans.

Julie Garden-Robinson, NDSU Extension food and nutrition specialist, held a poster session "On the Move to Better Health: Motivating Children to Improve Eating and Physical Activity Habits" at the conference. She also presented an oral abstract "Teens Serving Food Safely: Understanding and Improving the Process" that reported best strategies for delivering training to teenage food handlers. Funding for the food serving analysis was provided by USDA.

Northarvest has cooperated with and supported Garden-Robinson's nutrition education programs and activities in the past, including the "Eat Smart, Play Hard" program designed to encourage and teach children, parents, and caregivers to eat healthy and be physically active. The campaign offers resources and tools to convey and reinforce healthy eating and lifestyle

behaviors that are consistent with the Dietary Guidelines for Americans and the MyPyramid Food Guidance System.

"Eat Smart, Play Hard" information, featuring NDSU
Bison athletes, was distributed throughout N.D. Teachers received a set of 16 mini-lessons on the MyPyramid and food safety, as part of the educational component. Bean recipes were included in the "Eat Smart, Play Hard" campaign.

The "Eat Smart, Play Hard" web site for parents: www.fns.usda.gov/eatsmartplayhard-healthylifestyle

The "Eat Smart, Play Hard" web site for kids: www.fns.usda.gov/eatsmartplayhardkids.

FROM THE NORTHARVEST KITCHEN

DryBeanRecipes

Three Bean Dips for Fall Tailgating

By Lynne Bigwood, Northarvest Home Economist

Just in time for tailgating season, this fall column features three bean dips, and they are all delicious! Take in the fall colors, enjoy a harvest meal, or cheer on your favorite team with any or all of these tailgating choices (the NDSU Bison football season theme this year is 'Will You Be There?' So maybe we'll call ours 'Will You Bean There?'...)

Chili Bean Dip is the simplest one. Open a can of beans, kidney or pinto, drain off about half the liquid and blend with spices, onion and parsley. The calories and fat are very low. It has a fresh flavor and would also work nicely as the bean layer for burritos or tacos.

Super Bean Dip is a layered dip. I used a 12" glass pizza pan for the "large plate" with an edge to catch any spills. The bottom two layers are refried beans and bean dip mixed with sour cream. Bean dip in today's supermarket is often displayed in the chip aisle. It does pump up the flavor of the sour cream! If you wish, you can add a layer of guacamole between the beans and tomatoes (great way to use some picked fresh from

this year's garden). Guacamole adds color and flavor and, if you like it, that fat is heart healthy. On top of that are layers of tomatoes, olives and green onion. Shredded cheese finishes off the platter. This dip has great eye appeal and double the calories compared to Chili Bean Dip. When I served the three dips, this one was the most popular. Only shreds of cheese were left!

Bean and Cheese Dip starts with a jar of Cheese Whiz*. Stir in a can of bean and bacon soup, and green onions. A little hot sauce and garlic add some flavor interest to this simple combination. The last addition,

sour cream, helps to make the dip creamy. The original recipe instructions said to heat all the ingredients to blend them but I found that they stirred together very easily. The high fat cheese that gives this dip a melt-in-your-mouth taste also has many calories. Small portions of dip with vegetables, low fat crackers or bread will help to corner the calories and allow you to occasionally indulge and eat this high fat treat.

If you would like a hot bean dip, process or blend the bean soup before you add it to the Bean and Cheese Dip recipe and put it in a small crock pot.



Chili Bean Dip

16 Tablespoons (2 cups) 30 calories/tablespoon 4% calories from fat

Ingredients:

- 2 cups cooked kidney beans or 1 15.5-ounce can
- 1 tablespoon vinegar
- 3/4 teaspoon chili powder
- 1/8 teaspoon ground cumin
- 1 small piece of onion, approx. 2 teaspoons
- 1/2 cup fresh parsley tops, stems removed
- Raw vegetable sticks or baked chips

Method:

- Open beans and drain most of the liquid into a cup, reserving for later use.
- Pour beans into blender. Add vinegar, chili powder, cumin, onion and parsley.
- 3. Blend until smooth, adding reserved liquid as needed.
- 4. Remove mixture from blender to a bowl for serving.
- 5. Serve with raw vegetable sticks or baked chips. Refrigerate leftovers.
- Leftovers may be used as bean spread in tacos, burritos or quesadillas.

Super Bean Dip

20 Servings 60 calories/serving 45% calories from fat

Ingredients:

- 1 15.5-ounce can fat free refried beans
- 1 9-ounce container Bean Dip
- 1 8-ounce container low-fat sour cream
- 1 cup chopped tomatoes
- 1/4 cup chopped ripe olives
- 1/4 cup chopped green onion
- 2 cups grated low-fat sharp cheddar cheese
- Pita bread, raw vegetables or baked tortilla chips

Method:

- 1. Spread refried beans on a large plate.
- Combine dip and sour cream in a small bowl and spread over beans.
- 3. Layer tomatoes, ripe olives, green onion and cheese over dip.
- Serve with wedges of pita bread, raw vegetables or baked tortilla chips.

Bean & Cheese Dip

20 Servings 100 calories/serving 60% calories from fat

Ingredients:

- 1 16-ounce jar processed cheese spread (Cheese Whiz*)
- 1 10½-ounce can bean and bacon soup
- · 2 green onions, minced
- · 2 drops liquid hot sauce
- 1/8 teaspoon garlic dry or fresh
- 1 8-ounce container low-fat sour cream
- · Raw vegetables

Method:

- 1. Combine soup and cheese spread.
- Add onions, hot sauce and garlic; stir. Add sour cream; stir thoroughly.
- 3. Serve with raw vegetables. Refrigerate leftovers.





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TheLastWord

Dear Rachael Ray: How About a Show on Beans?

By Tracy Sayler

The following is an excerpt from the transcript of an interview last February of First Lady Laura Bush by cooking cutie Rachael

RR: Now, what about the girls? Were your girls - you have beautiful girls, by the way, because their mom is so pretty.

MRS. BUSH: Thanks.

RR: That wasn't a slam to dad, sorry. (Laughter.) But your girls, were they picky eaters?

MRS. BUSH: They weren't picky eaters. They inherited a really good appetite from their dad and me. But they like foods, they like all foods, but they're very careful about what they eat. Neither one of them eat a lot of meat.

RR: Oh, yes, well, that can be dangerous too, right? Too much red meat. But all things in moderation.

MRS. BUSH: All things in moderation. But they mainly have fish and vegetables.

RR: They're probably figure con-

MRS. BUSH: And beans, they love

RR: Green beans or baked beans or -

MRS. BUSH: No, beans, like black beans, Cuban black beans or pinto beans.

RR: I love beans, too. Well, they can come over anytime they want, I'll whip them up a little black beans, no problem. (Laughter.)

This got us thinking, we should send a letter to Rachael, to see if she'd be interested in featuring beans in her magazine or TV program. So we did. Check out the following letter we sent her. We'll let you know if she or someone from her show/magazine responds...

Dear Rachael Ray:

We'd like to encourage "The Rachael Ray Show" or/and your magazine Every Day with Rachael Ray to do a feature on beans. Beans? yes, beans - pinto beans, navy beans, black turtle beans, kidney beans - there's a lot to talk about:



- Dry beans are one of the few foods that fall under two categories of the Food
- Beans are packed with more nutrition than most people realize high in protein, complex carbohydrate, fiber and essential vitamins and minerals, yet naturally low in
- Both protective and therapeutic effects of bean intake have been documented, and research shows a role for beans in meeting the major dietary recommendations to reduce risk for chronic diseases such as coronary heart disease, type 2 diabetes, obesity, cancer, and in preventing anemia, which affects about 7 out of 10 women
- Dry beans are a key protein source for vegetarians, and a food growing in prominence

as the U.S. Hispanic population grows.

Because dry beans are one of the few sources of protein with a high, stable shelf life, they are key to feeding the hungry both in developing countries as well as the U.S.

On your show or in the magazine, we can talk about how easy beans are to prepare, and their versatility - in salads, salsas, main dishes, sides, even dessert (how about recipes for low-fat bean brownies and pinto bean fudge?). We can also talk about managing the, um, gassy side of beans - should make for good television.

We invite you to do your show up here in the Northarvest growing area (North Dakota-Minnesota, the leading production area of beans in the country). Maybe you'd be interested in touring a dry bean farm. Or maybe you could be our guest during Bean Day in Fargo (Jan 17-18, 2008 in Fargo, N.D.) which attracts about 1,000 growers

If visiting Fargo in January doesn't grab you, we'd sure be tickled to visit your show for a bean segment. You'd love Lynne Bigwood, our home economist, who is an expert on

We look forward to hearing from you! Your Friends at the Northarvest Bean Growers Association





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