

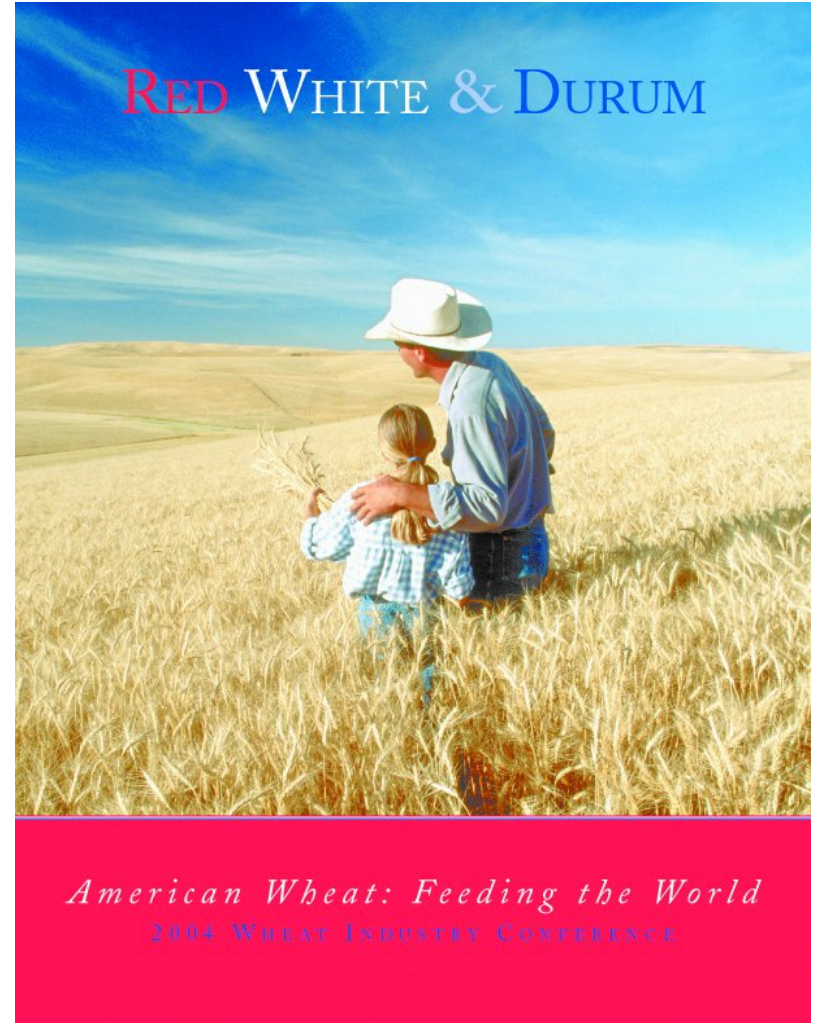
North Dakota Wheat Commission Checkoff Results

Best of the Best in
Wheat Research and Marketing Workshop
January 30-31, 2006

COMMUNICATING IMPORTANCE OF THE WHEAT INDUSTRY TO N.D.

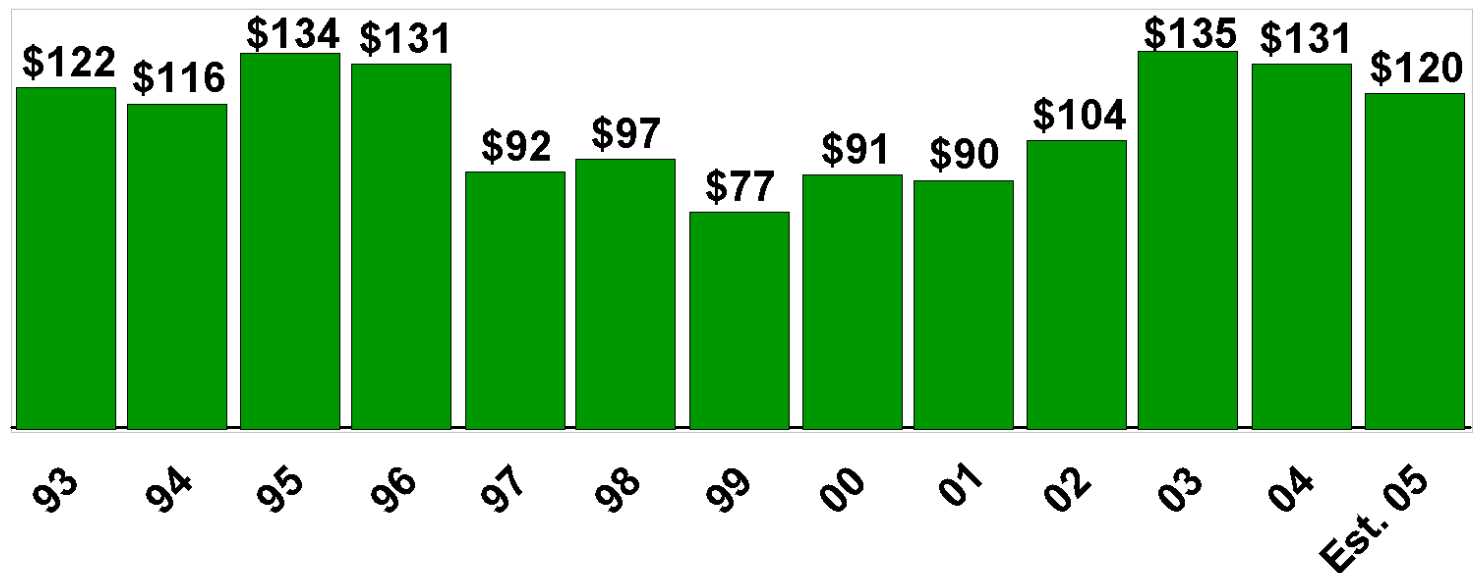
- \$3.56 billion annual economic impact
 - \$1.35 billion direct
 - 2.21 billion secondary
- Each acre generates \$393 in total economic activity plus \$13.88 in tax revenue annually
- 20% of all farm/ranch marketings

Source: NDSU 2004



N.D. WHEAT PRODUCTION GROSS RETURNS

Per harvested acre
(Average market price X yield)

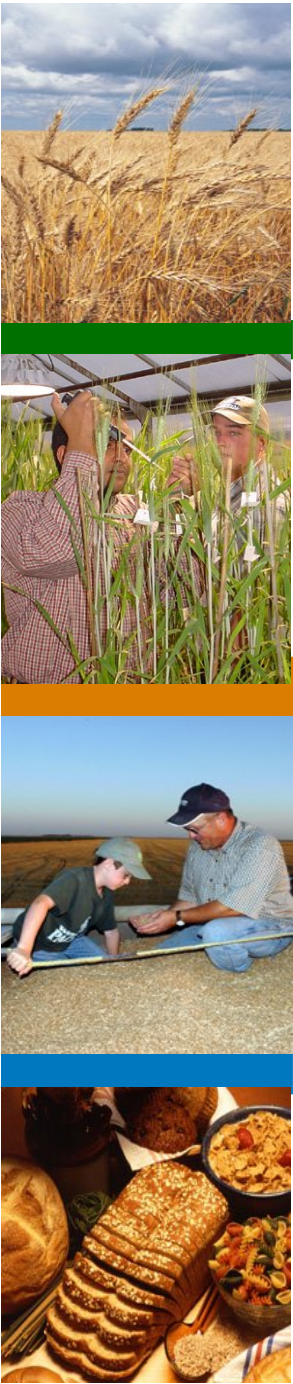


Source: ND Agricultural Statistics Service
Farm Reporter, Feb. 18, 2005
*2005 NDWC Unofficial Estimate

OPENING OVERSEAS MARKETS

2005 Trade Teams & Short Courses

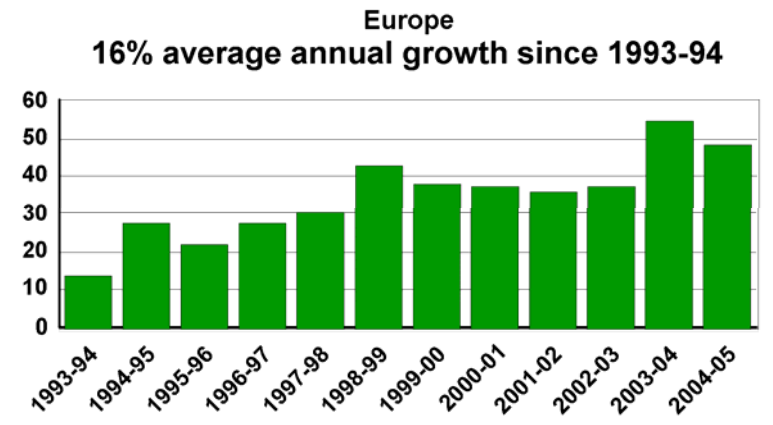
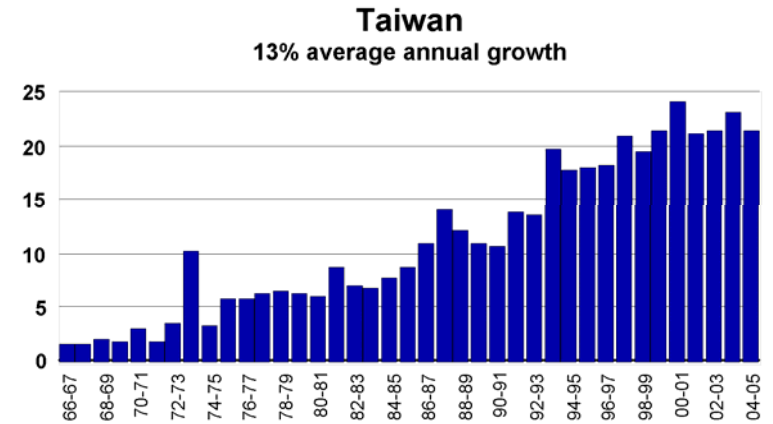
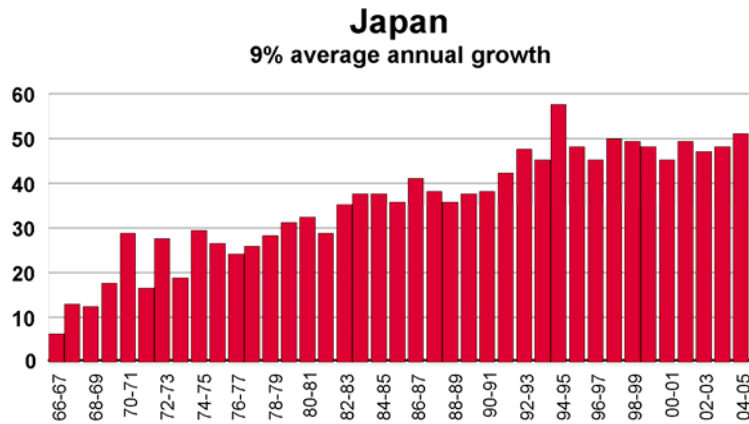
- Japan
 - MAFF (USW)
 - Tomen (self-sponsored)
 - Nisshin (self-sponsored)
 - Mitsubishi (self-sponsored)
 - Fuji Flour Mills (self-sponsored)
- Taiwan (USW/self)
- China (USW)
- SE Asian Technical Team
 - Thailand
 - Malaysia
 - Indonesia
- Southern Africa (USW)
- Altex (Kansas)
- Northern Crops Institute
 - Grain Procurement for Importers
 - Advanced Grain Procurement

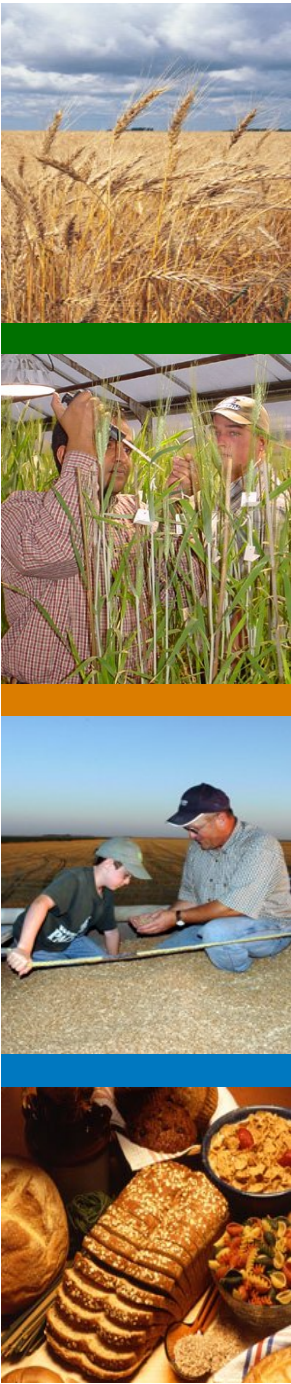


MARKET DEVELOPMENT

Case studies in long-term effectiveness

Hard red spring wheat exports (million bushels)





RESPONSE TO 2005 SCAB PROBLEM

Alleviating producer & customer panic

- Reassuring customers
 - Composite samples from N.D. ranged from 0.10 ppm in SW to 2.9 ppm in SE
- Partnered with NDSU Extension Service to provide updated info to growers to minimize losses this year & prevent problem next year

PP-1302

■ DON (Vomitoxin) in Wheat

Basic Questions and Answers

■ **What is DON?**
 Deoxynivalenol (DON), commonly referred to as vomitoxin, is a mycotoxin that may be produced in wheat and barley grain infected by *Fusarium head blight* (FHB) or scab. FHB may infect grain heads when wet weather occurs during the flowering and grain filling stages of plant development. The occurrence of FHB does not automatically mean that DON is present, but a high level of scabby kernels in the harvested grain means DON will likely be present. Levels of DON do not necessarily correlate with levels of physical damage in grain.

■ **What are the critical levels of DON for use in food and feed?**
 The concentrations of DON in grain are expressed as parts per million (ppm). One ppm is equivalent to 1 pound in 1 million pounds; 1 penny in \$10,000; 1 minute in two years; or 1 wheat kernel in 80 pounds of wheat.
 The U.S. Food and Drug Administration (FDA) has established DON advisory levels to provide safe food and feed. Unlike aflatoxin in corn, DON is not a known carcinogen. Furthermore, grain with DON would have to be ingested in very high amounts to pose a health risk to humans, but it can affect flavors in foods and processing performance.

■ **How does DON impact wheat grain quality and product performance?**
 FHB infection during very early kernel development can reduce yield by decreasing kernel numbers. Slightly later infections cause shrunk, chaffy white or discolored scabby kernels, which often are referred to as tombstones. Kernels infected late in their development by FHB may show no visible damage, but still have elevated levels of DON. A Canadian study (Singh & Savard, 1997, Can. J. of Plant Path. 19:8-12) of DON in FHB infected wheat kernels found an average level of 1 to 1.2 ppm in normal appearing kernels, 2 to 5 ppm in shriveled kernels, 174 ppm in white tombstones, and 274 ppm in pink tombstones.

Human food products are restricted to a 1-ppm level established by the FDA. This level is considered safe for human consumption. The food industry often sets standards that are more restrictive. DON causes feed refusal and poor weight gain in some livestock if fed above the advisory levels. FDA advisory levels are as follows:

1 ppm	Finished wheat products, such as flour, bran and germ, that potentially may be consumed by humans. The FDA does not set an advisory level for raw grain intended for milling because normal manufacturing practices and additional technology available to millers can substantially reduce DON levels in the finished wheat product. However, individual millers or food industries may have stricter requirements than 1 ppm.
10 ppm	Grains and byproducts destined for ruminating beef and feedlot cattle older than 4 months and for poultry, providing that these ingredients don't exceed 50 percent of the diet.
5 ppm	Grains and grain byproducts destined for swine, providing that these ingredients don't exceed 20 percent of the diet.
5 ppm	Grains and grain byproducts destined for all other animals, providing that these ingredients don't exceed 40 percent of the diet.

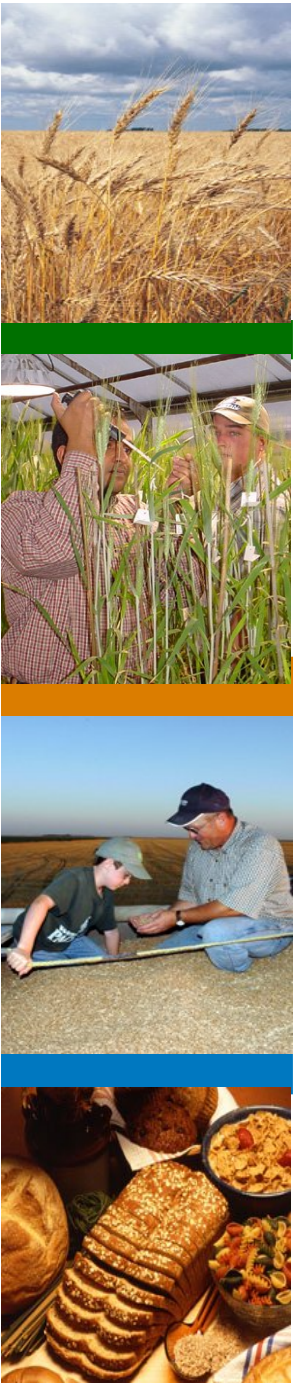
Deight Aakre, Farm Management Specialist
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 Greg Lardy, Soil Tester Specialist
 Maria McMillan, Plant Pathologist
 Joel Peterson, Agronomist
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 Andrew Strassler, Farm and Family Resource Management Specialist

In cooperation with the N.D. Wheat Commission

NDSU
 Extension Service
 North Dakota State University, Fargo, North Dakota 58105
 SEPTEMBER 2005

NEW WHEAT VARIETIES

- Alsen leading HRS variety in ND (29%)
- Glenn released in 2005
 - Quality, scab resistance, yield
 - 1.2 bu/a more than Alsen in statewide trials
 - 4.6 bu/a more in eastern N.D. (2002-04) & 6.9 bu/a more in 2005 according to initial trial results
- 3 new durum varieties: Alkabo, Grenora & Divide
 - stronger gluten properties
- Supporting hard white spring wheat development
 - to meet domestic demand for whole grain products and Asian noodle demand



REINFORCING CONSUMPTION OF GRAIN FOODS

- Wheat Foods Council input to Dietary Guidelines Advisory Committee
- Gained emphasis on grains in 2005 Dietary Guidelines
- Demonstrated nutritional contribution of white flour products to American health
 - Otherwise guidelines might have said "Eat only whole grains."



INFLUENCING THE INFLUENCERS

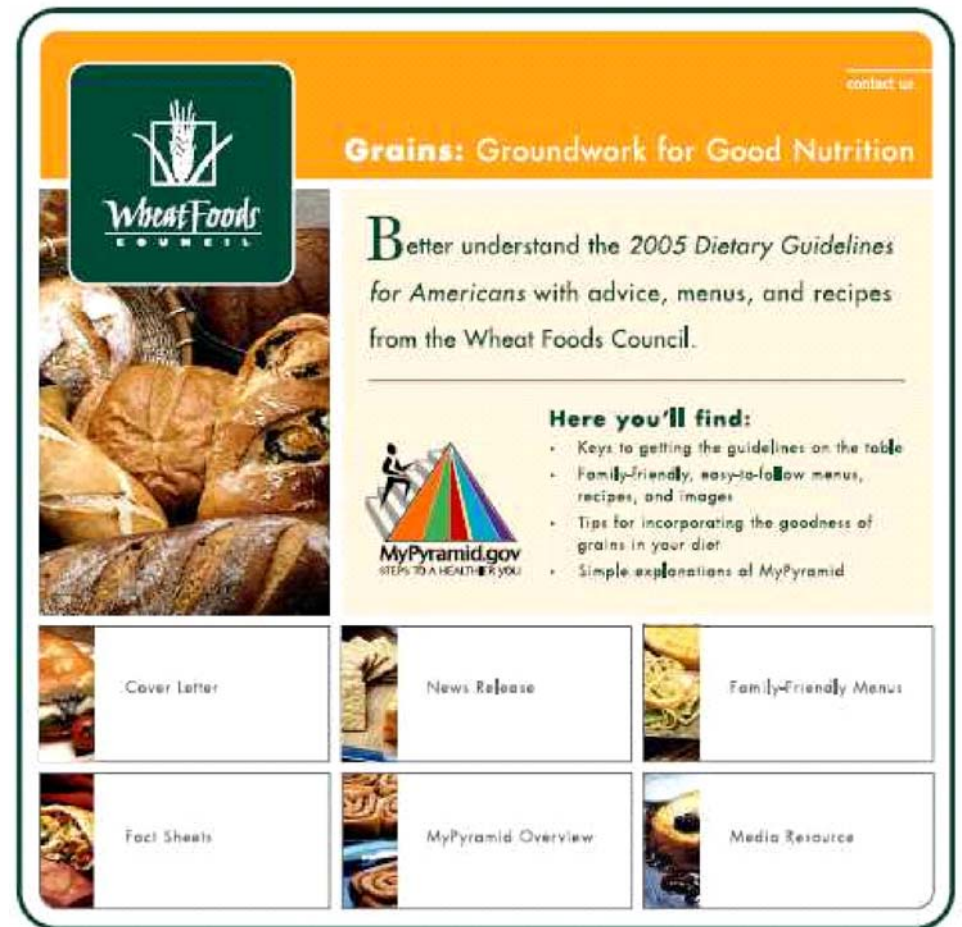
- Digital media kit sent to media and health professionals

The myths and truths
of carbohydrates

It's the
CALORIES
Not the Carbs

- ★ Lose weight and maintain it FOR LIFE!
- ★ Increase energy for body and mind!
- ★ Help prevent chronic disease!
- ★ Eat foods you love!

Glenn A. Gaesser, Ph.D.
Karin Kratina, Ph.D., R.D.



contact us


Grains: Groundwork for Good Nutrition







Wheat Foods
COUNCIL

Better understand the *2005 Dietary Guidelines for Americans* with advice, menus, and recipes from the Wheat Foods Council.

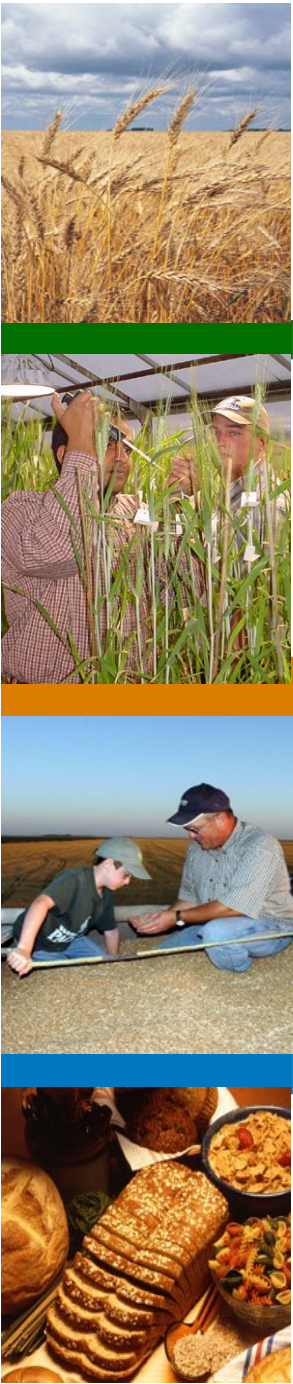
Here you'll find:

- Keys to getting the guidelines on the table
- Family-friendly, easy-to-follow menus, recipes, and images
- Tips for incorporating the goodness of grains in your diet
- Simple explanations of MyPyramid

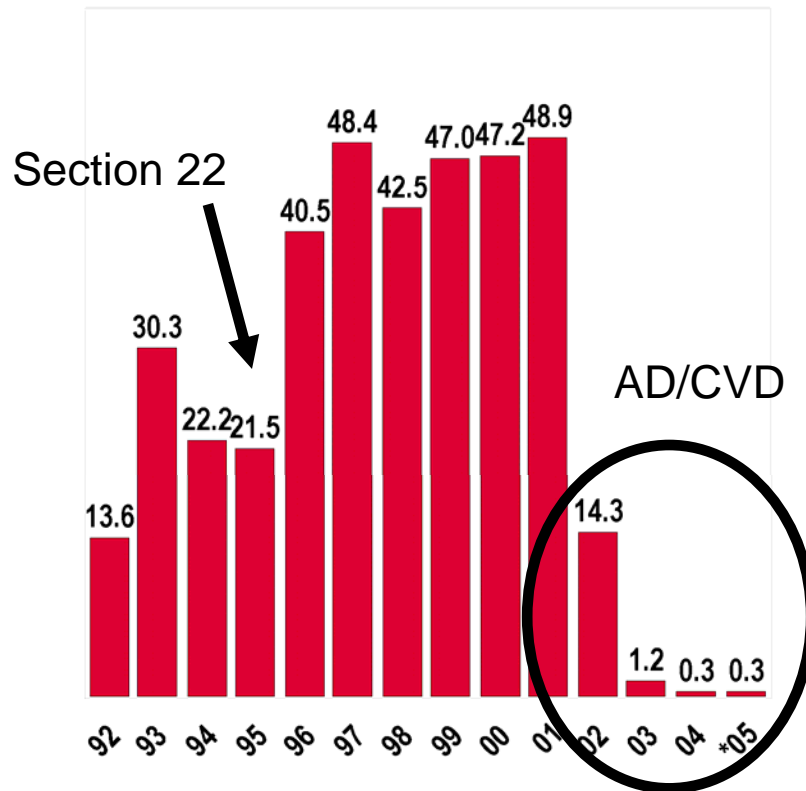
 MyPyramid.gov
STEPS TO A HEALTHIER YOU

 Cover Letter	 News Release	 Family-Friendly Menus
 Fact Sheets	 MyPyramid Overview	 Media Resource

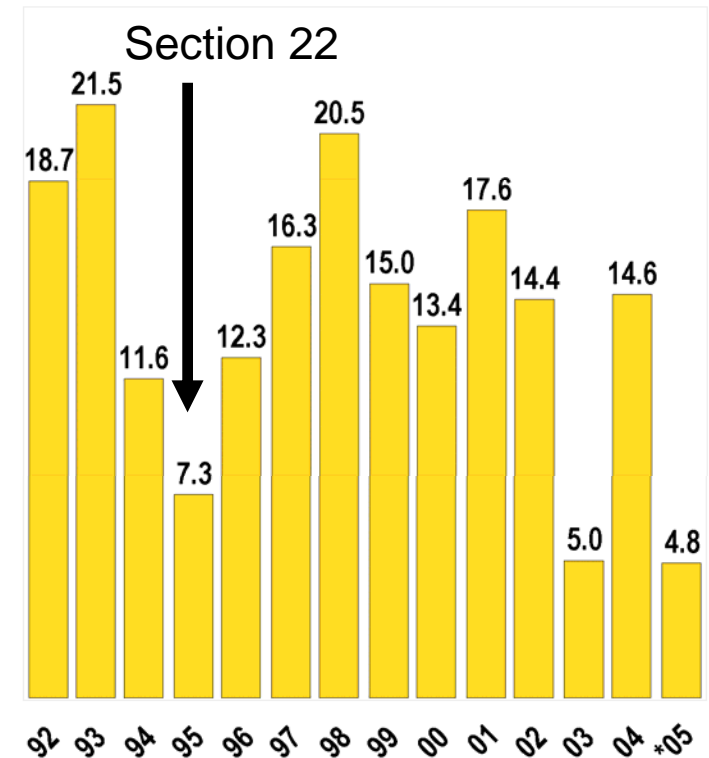
TRADE CASE HELD IMPORTS OF CANADIAN HRS WHEAT TO LOW LEVELS



HARD RED SPRING



DURUM



Source: U.S. Department of Commerce, Census Bureau
 *05 includes months of June-Oct only

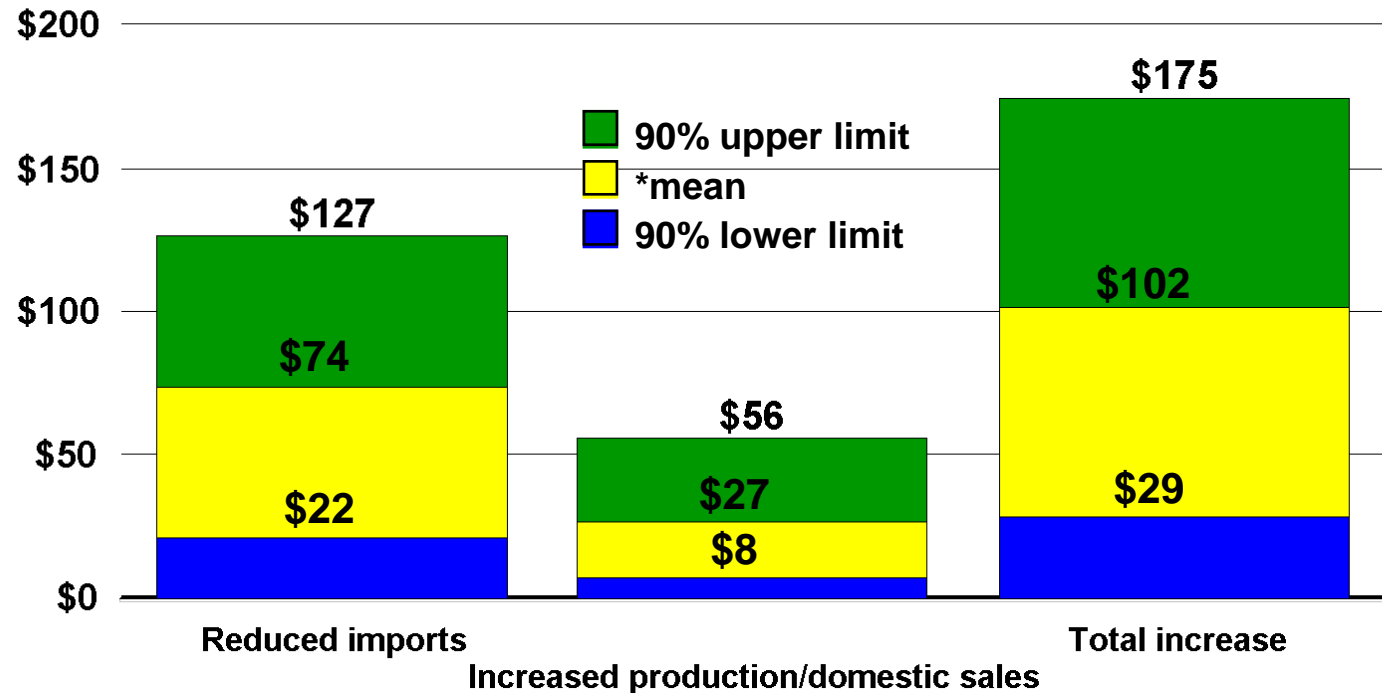
ESTIMATED ANNUAL BENEFIT

\$0.15 per bushel mean price increase

\$102 million mean income increase

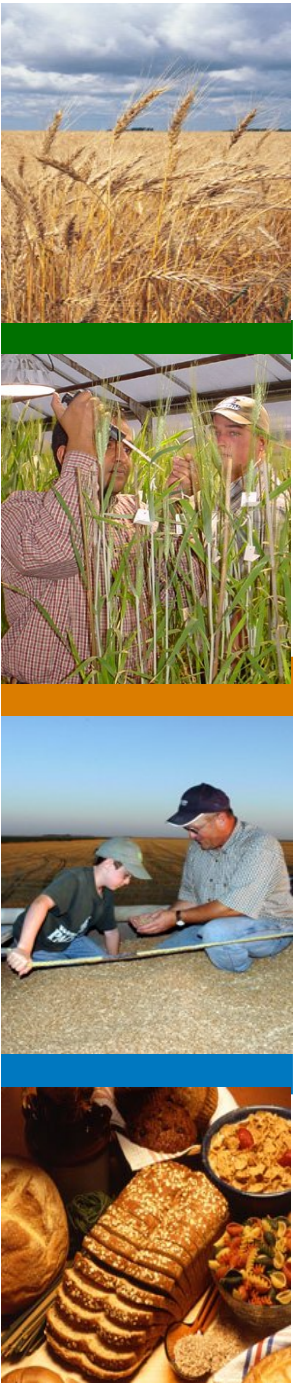
X nearly 3 years

\$Million increase in revenue to U.S. HRS farmers



*90% confidence level

Source: *Effects of Duties on Canadian Hard Red Spring Wheat (Mattson, Koo, Back)*,
NDSU Department of Agribusiness and Applied Economics, February 2005



RAIL ISSUE ADVOCACY

- Freight costs cut into producer's bottom line
- Wheat rates disadvantage wheat competitively
 - In the market and with alternate crop
- Disruptions and lack of service also impact market opportunities
- \$50,000 commitment to Public Service Commission's rail rate case

DOMESTIC POLICY

- 2005 Legislature passed legislation directing a portion of checkoff to address domestic farm policy such as
 - 2007 Federal Farm Bill
 - Crop insurance
 - Environmental regulations
 - Disaster aid



A close-up photograph of a wheat field. The wheat stalks are golden-brown and have long, thin awns. The background shows a clear blue sky with scattered white clouds.

THANK YOU

**Thank you for the opportunity to serve
North Dakota's great wheat industry.**