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Guest Column

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Grain is graded in commerce by private or state employed licensed inspectors and the Federal Grain Inspection Service, the latter in a regulatory function and in many phases of the grain export system.

Some new regulations on wheat grading were placed in force May 1, 1987; (1) dockage in wheat is to be reported on a 0.1 percent basis instead of a 0.5 percent basis, meaning more precise stating of dockage in wheat, and (2) wheat protein percentage is to be reported on a standard 12 percent moisture basis. Some leeway in enforcement of the protein reporting percentage will be allowed during the first year after May 1, 1987, according to FGIS.

Other recent headlines about grain grading or directly related to the grain inspection system are: (1) "The Truth about Dirty Grain" as reported in the January 3, 1987, issue of *The Dakota Farmer*, states that a survey made in 1985 and 1986 by U.S. Wheat Associates showed that dirty grain, i.e., grain with considerable dockage and foreign material starts on the farm; the farmer is responsible, not the grain broker or the exporter or the country elevator; (2) standards for barley are being revised including some deletion of Special Grades, change in wording, etc.; (3) "FGIS Rules Soybean Oil O.K." meaning the application of small amounts of soyoil for dust control in the grain handling procedures, to reduce dust explosions, etc.; and (4) "North Dakota Barley Crop Survey Reports Quality of Crop."

The North Dakota State Wheat Commission sponsors an annual wheat crop quality survey and publishes a report for North Dakota, South Dakota, Minnesota and Montana showing the percentage of the crop in the various crop reporting districts that grades No. 1 Hard Amber Durum, No. 1 Dark Northern Spring, and lower grades. The North Dakota Barley Council sponsors a similar survey for North Dakota and reports the results, also by crop reporting district, for Kernel Size Assortment, Kernel Color Score, Test Weight per Bushel, Moisture, Protein percentage, and Extract. The results of these wheat and barley surveys are valuable for the domestic and export buyer of the grain but also should be useful and valuable to the farmer if the grading system is understood better.

The principles of the grain grading system are not understood very well by most farmers, extension workers, agribusiness, and even some people working at country elevators. However, the wheat and barley surveys can be understood with a little study and experience and the farmer can use the information in grain marketing.

Farmers understand test weight per bushel and protein percentage. Dockage of wheat or barley is material, mostly non-wheat or barley, removed by a cleaning machine.

Continued on page 24

In This Issue

End-Gate Sampling of Grain <i>Leslie F. Backer and George G. Maher, Jr.</i>	3
Effects of Wheat Streak Mosaic Virus Infection on Fifteen Hard Red Spring Wheat Cultivars <i>M.C. Edwards and M.P. McMullen</i>	6
Leadership Ability of Young Rural Adults in North Dakota <i>Vernon D. Luft</i>	8
Deworming Beef Cows and Its Effect On Weaning Weight of Their Calves <i>K. Wohlgenuth, W.D. Slanger, W.J. Froelich, E.E. Haadem and R.J. Martin</i>	13
Impact of Selected Financial Options on a Representative Cow-Calf Ranch in Western North Dakota <i>David L. Watt, D. Fred Bryn, Roger G. Johnson and Mir B. Ali</i>	15
Performance of a Prolific and a Non-Prolific Corn Hybrid in Central North Dakota <i>J.C. Gardner, B.G. Schatz, and H.M. Olson</i>	21
Analysis of Practices Influencing Management Factors of Selected Crop Farmers in East Central North Dakota <i>Mark Wood and Roger G. Johnson</i>	25
Potash and Phosphate Fertilization on Irrigated Alfalfa <i>C.R. Thompson, D.L. Dodds and B.K. Hoag</i>	29

On the Cover: Jack Carter, soon to retire as chairman of the Department of Agronomy, comments on the grain grading system in this issue's guest column. Photo by Jim Berg

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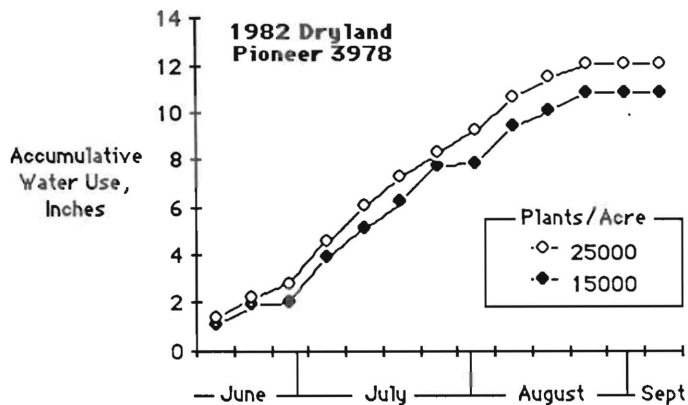


Figure 4. Mean accumulative water use for Pioneer 3978 on dryland in 1982 for the 15,000 and 25,000 plants/acre treatments.

where an established plant is essentially an ear, can be of great value in an environment where precipitation can be controlled. Based on these data a non-prolific hybrid established at relatively high plant populations would be the choice for high yield, irrigated environments. To fully realize the yield benefits from such a strategy, however, other management practices such as water, fertility, and pest management become even more critical as maximum yields are approached.

In summary, a prolific corn hybrid was able to help achieve yield stability in central North Dakota though it did not have the yield potential of a non-prolific hybrid. There does appear to be potential in the development of prolific corn hybrids which will most benefit the dryland North Dakota corn producers.

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Continued from page 2

Dockage is weed seeds, chaff, straw, insect parts, dust or light material, etc. and can contain some small kernels or pieces of wheat or barley kernels. Foreign materials in wheat is the "material other than wheat" in a wheat sample after dockage removal. Sprout or other damage to wheat kernels and mixtures of kinds (classes) of wheat, e.g., durum wheat in hard red spring wheat, also influence wheat grades.

I believe that farmers should be more familiar with the grading of grain. This knowledge should be useful especially in these times of low cash prices for grain, the use of extensive farm storage of grain, the availability of high protein premiums for high protein hard red spring wheat, and the increasing use of "unit trains" to market grain.

A farmer can use the grain grading system even without detailed knowledge of the actual physical grain grading process. The farmer can take a **representative sample** of grain being loaded into farm storage and send the sample to a licensed inspector at Fargo, Grand Forks, Jamestown or Minot to get a Submitted Sample grade. The Submitted Sample Certificate will report the physical nature of the grain and provide the essential information needed for effective marketing. The farmer can use this information to merchandise his grain more effectively, hopefully to obtain a greater cash price. The information on the Submitted Sample Certificate should be mutually useful for the farmer and the elevator seeking to make up a unit train of grain having similar or same quality or grade.

The **representative sample**, which is a small sample representing a much larger lot, is very important and information is available on how to take the sample with a coffee can or similar device that costs nothing, and is as accurate as a more expensive special device. The sampling device is passed through the grain stream falling from the truck end-gate at several intervals during unloading of the truck. (See article on page 3 of this issue.)

Controversy exists on whether a farmer should clean grain to remove some dockage and foreign material on the farm. Most grain contains some dockage and foreign material. Bill Wilson, an NDSU agricultural economist, has calculated that cleaning grain to remove dockage and foreign material on the farm will cost 14-17 cents per bushel. It is doubtful that the clean grain would have increased value of 14-17 cents per bushel after cleaning in our present marketing system. The farmer would have difficulty recouping the cost of cleaning unless the "cleanout" or "screenings" could be sold for an amount more or less equal to the cleaning cost. More market research needs to be done on the economic considerations to cleaning grain on the farm or at the elevator before sale. But, farmers should use the grain grading system to improve marketing efficiency and return on cash grain.

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