



NORTH DAKOTA
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Irrigated Pasture Study . . . page 21

From the Director



A. G. HAZEN

We are taking this opportunity to briefly review some of the contributions in one area of your Agricultural Experiment Station endeavors — new crop varieties released as a result of research. Elsewhere in this issue is a financial statement. Together, these are a sort of “return on investment” statement to the taxpayers of North Dakota.

New varieties released during the last year or so, or to be released soon, include Nordic and Beacon barley, Ward and Rollette durum, Sundak sunflower, Lark and Cannonball tomatoes and Emerald winter squash.

Nordic, although not accepted by the malting trade, has been described by one NDSU agronomist as the “best darned feed barley in the world.” Beacon is an excellent early variety that can build some flexibility into the barley harvesting operation. It is close to Larker for kernel plumpness. It is the first malting barley released by NDSU that was accepted by the malting industry **before** naming and release. It is also the first NDSU barley with loose smut resistance.

Rollette durum, in its second year of distribution, is earlier, shorter, and has stiffer straw than Leeds, Wells and Hercules. It has a broad range of stem rust resistance and a moderate field resistance to prevalent races of leaf rust. Ward is higher yielding, has stronger straw, greater leaf rust resistance and less leaf spotting diseases than Rollette, Leads, Wells and Hercules. Ward averaged 15 per cent more yield than Leeds from 1969 to 1972 and is adapted well over the state.

Sundak, the confectionery sunflower to be released cooperatively with ARS, USDA, next month, is the first sunflower of that type to have rust resistance. It has yielded well over 100 per cent more than the Commander variety to which it is closely related.

Lark and Cannonball tomatoes become the 18th and 19th varieties released by NDSU. The two new varieties are aimed at the fresh market, so home gardeners should find them to be worthy successors to such popular varieties as Sheyenne, Cavalier, Bounty and Bison. The latter variety, released by A. F. Yeager in 1929, is still grown widely in Europe and in Russia.

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On The Cover: Sioux County Extension Agent Charles Soiseth moves a tow-line irrigation system through lush irrigated grass-alfalfa rotation pasture on the Standing Rock Sioux Reservation at Ft. Yates. First-year results of this intensive study are reported in detail in this issue.



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The disease can also be reduced by lowering the inoculum in the soil by crop rotation or summer fallow. These farming practices combined with the resistance displayed by the hard red spring wheats should reduce the seedling blight, root and crown rot disease complex in North Dakota.

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FROM THE DIRECTOR —

(Continued from page 2)

Emerald winter squash is the third such release from NDSU, started by Yeager's release of Buttercup, still a standard for quality. Emerald is a bush type with a fruit that stores well and has an ideal size for family use.

Three NDSU potato varieties—Norchip, Norgold Russet and Norland—make up over 50 per cent of the potato acreage grown in the Red River Valley. A red potato line undergoing consumer reaction, ND6634-2R, appears to be nearing the end of its testing period. It suberizes better than existing red varieties, is uniform and has a bright red skin which means high consumer eye appeal. Dr. Bob Johansen, NDSU's internationally-known potato breeder, has several promising russets under observation in his breeding program.

Since 1960, additional agronomic releases from NDSU include Wells, Lakota and Leeds durums; Trophy, Larker and Dickson barleys; Carman, Nor-kota and Mindak sorghums; Justin, Fortuna and Waldron hard red spring wheats; Dawn and Wyndmere oats; Foster flax; Lodorm green needlegrass; and 72 inbred corn lines released to commercial corn breeders.

Please fill in blanks below, fold twice so our address is on the outside, staple or tape, and mail. Thank you for your cooperation.

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Information we would like to know about our readers

5. To which age group do you belong?

- a) _____ under 21
- b) _____ 21 to 30
- c) _____ 31 to 45
- d) _____ 46 to 60
- e) _____ over 60

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6. What is the highest level of formal education you have completed?

- a) grade eight or less
- b) more than grade eight but less than grade twelve
- c) high school graduate
- d) one year vocational/technical school
- e) two years vocational/technical school
- f) two years or less of college
- g) more than two years of college but less than baccalaureate degree
- h) baccalaureate degree
- i) college graduate work or more
- j) other (please specify) _____

7. Where do you live during most of the year?

- a) farm
- b) town of 2500 population or less
- c) urban area of 2500 or more
- d) other (please specify) _____

8. Which of the following categories most accurately describes the way you earn your living?

- a) 100% cash grain farming
- b) 75% cash grain farming - 25% live-stock
- c) 50% cash grain farming - 50% live-stock
- d) 25% cash grain farming - 75% live-stock
- e) 100% livestock
- f) part-time farmer, part-time laborer
- g) part-time farmer, part-time agri-business
- h) agri-business (elevator manager, implement dealer, etc.)
- i) Professional (teacher, county agent, etc.)
- j) other (please specify) _____

9. Which of the following categories most accurately describes the size of your farm?

- a) 180 acres or less
- b) 181 to 219 acres
- c) 220 to 259 acres
- d) 260 to 499 acres
- e) 500 to 999 acres
- f) 1,000 to 1,499 acres
- g) 1,500 to 1,999 acres
- h) 2,000 to 2,499 acres
- i) 2,500 acres or more

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