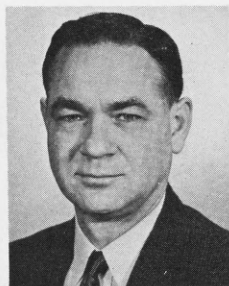


# From the DIRECTOR



**A. G. HAZEN**

North Dakota State University's unique southern seed increase program (story on page 3) is a valuable asset to the state. It reduces the time required to get new varieties into commercial production. This procedure may be especially valuable in crop emergencies involving new rust races and other diseases.

This accelerated seed production is geared to an accelerated breeding program; there's little need of having one without the other. The program is especially feasible for barley, hard red spring wheat, and durum wheat.

The climate, growers, and physical facilities available in Arizona and California have resulted in a very efficient seed increase program. We can harvest seed in North Dakota in the summer, plant it in August in Southern California, harvest the crop in November and take the seed of this harvest to Arizona for further increase, giving us three generations of seed increase each year. This hastens the buildup of seed of a new variety.

The economic benefit of the seed increase program to North Dakota is tremendous. By getting a new variety to our farmers a year earlier, a great production gain is made. Millions of additional bushels of grain are produced in the state as a result of the southern increase program. This translates into millions of dollars for the state's economy.

Since 1965 David Ebeltoft of the Agronomy Department, while in Arizona harvesting routine winter increases of cereals, has traveled to several areas of southern California to visit county agents and agronomists. Ebeltoft has been seeking a suitable site for August to November cereal crop field increase to extend our seed increase program to three crops per calendar year within the U.S.

The search for new winter increase sites was begun in 1963 by Dr. Robert Harrison, former NDSU agronomist, who realized the potential for a third crop (NDSU has increased wheat and barley in the winter in Arizona for many years).

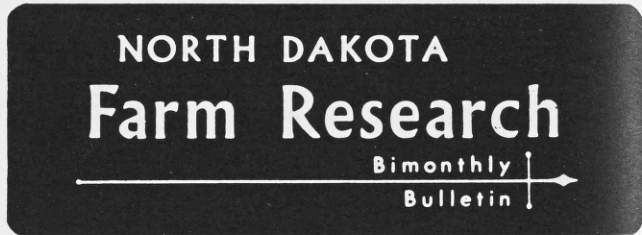
Nor would the program be successful without the generous help and contributions of individuals and organizations in Arizona and California.

The Experiment Station is currently studying the possibilities of other crops also being increased in the southwest. The potential appears to be great.

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**On The Cover:** David Ebeltoft, agronomist at North Dakota State University and author of the article on page 3, contrasts handful of barley with two "mountains" of grain to depict potential increase of seed in one year in the University's southern seed increase program.



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