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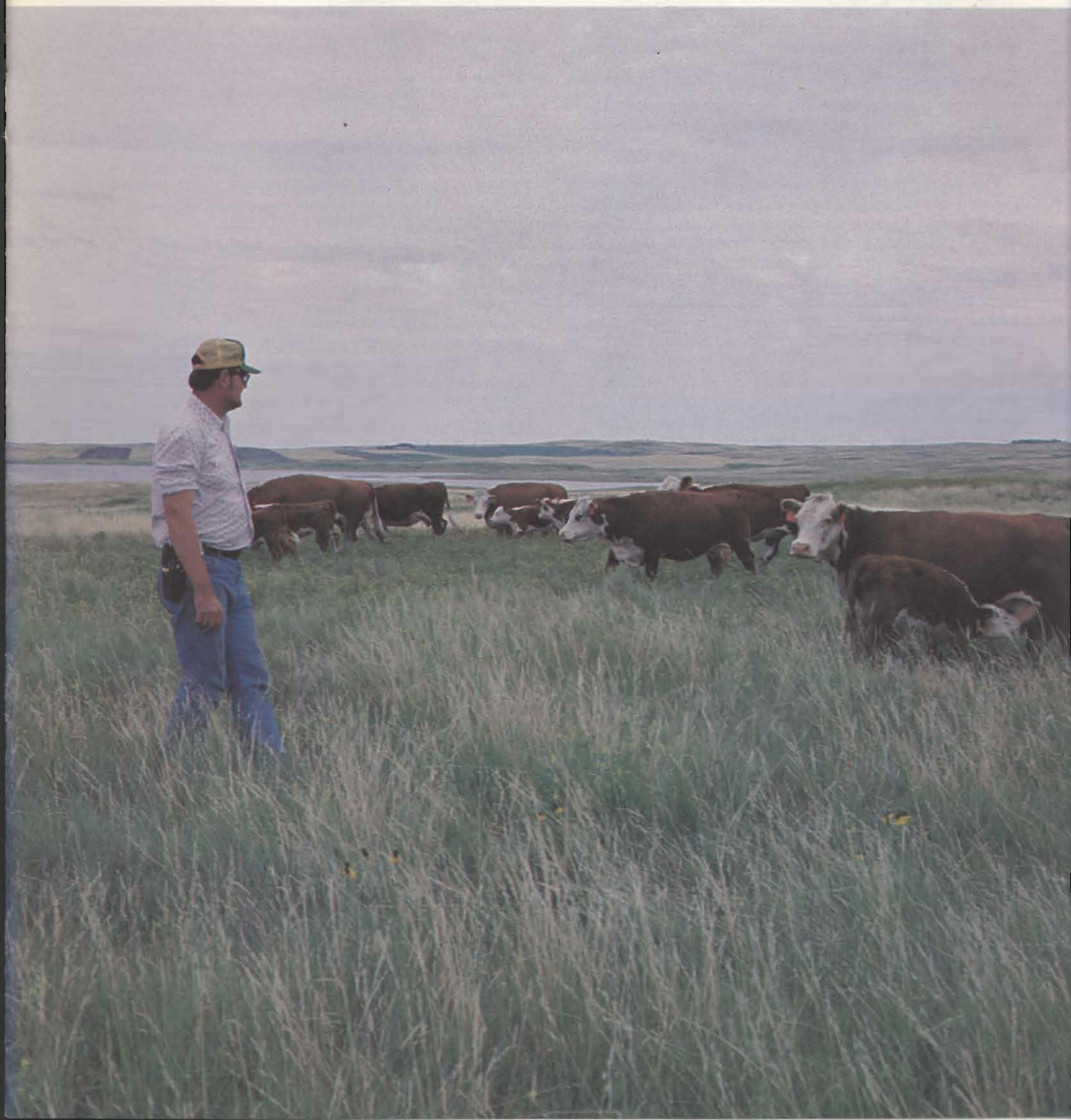

Guest Column

PAUL NYREN
Superintendent
Central Grasslands
Experiment Station

North Dakota has, in recent years, become very aware of the value attached to its vast energy deposits — non-renewable resources. We have, however, never fully recognized the value of our native rangeland — a renewable resource which has been producing valuable forage for centuries and, if we preserve them, will continue to produce for centuries more.

Our native rangelands have always been misunderstood. The first settlers, many of them farmers from the more humid Eastern forested states, found the open prairies frightening and many referred to them as wastelands or deserts. They assumed that the mixed and shortgrasss prairies could be plowed for cropland as were the tall grass prairies of their old homes. They lacked the knowledge or the sources of information to understand the differences in productivity due to precipitation patterns, soil types, and other factors. A little research into these circumstances of small homestead allotments, the lack of knowledge, and pressure by the government for more food production in times of national need help us to understand what led to the past destruction of this valuable resource.

Thousands of acres of native rangeland are destroyed each year. The reasons behind today's errors are more subtle but by no means less destructive. What then is the reasoning behind the current lack of understanding of the native range resource? We have at the top of the list economics. Many people in our financial institutions feel that cropland — any cropland — is worth more than rangeland. Generally, poor cropland rents for more than good rangeland on a per acre basis. New farming practices have also played a part. In the past the only areas left in grass were generally those which could not be farmed. Today with the availability of bigger 4-wheel drive tractors and heavier equipment many of these areas are no longer unfarmable. Mismanagement has also played its part. Rangeland which has declined from good to poor condition due to overgrazing or mismanagement is much easier to "work up" because it "just wasn't producing much anymore." Unlike agronomic crops where poor management will be evident in a few weeks or months, poor range management may take several years to become evident, so it becomes easier to become lulled into a false sense of security.

This is not to say that our rangelands are not better understood and better managed than they were in the past. We have come a long way in our understanding of the range resource and its management — this is only to

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On the Cover: Superintendent Paul Nyren inspects the cow herd at the Central Grasslands Experiment Station near Streeter, the newest addition to North Dakota's network of branch experiment stations. Photo by James Berg

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Guest Column continued

say we still have a lot to learn and a long way to go. Because rangeland has a much more complex species structure it is more difficult to understand. Each of these species contribute to the overall productivity of the range resource and this species composition changes from one range type to another.

This then is the task set before us at the Central Grasslands Research Station, to design research which will lead to a better understanding of the range ecosystem and to take this information and, using it, design management systems which will result in more beef production from native and introduced grasslands without damaging the resource.

The Botany Department in cooperation with Experiment Station staff are conducting a detailed vegetation survey of the native range sites on the station. A short duration grazing system which utilizes eight 40-acre pie-shaped pastures in a 4-5 day on, 35-40 day off rotation is being compared to season long grazing. A four-pasture rotation system on native range will evaluate a more conventional rotation schedule of 25-35 days on each of the four pastures. A third grazing system will evaluate the use of tame grases in a complementary grazing system where crested wheatgrass will be used for spring grazing, native range for early and mid-summer, Russian wildrye for late summer and early fall, and altai wildrye for late fall. These research trials will provide valuable data on vegetation and animal performance under different grazing systems.

In addition, small plot trials will evaluate new grass and legume varieties. Native species establishment and range fertilization trials will contribute to our knowledge of ways to improve tame grass production and to increase the forage production of native rangeland.

These research trials are by their design long term studies which take many years to complete. The producers of North Dakota are fortunate indeed to have a state government willing to make this long term commitment towards the understanding and improvement of this valuable natural resource.

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H R Lund

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