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College of Agriculture

# MEDUSAHEAD

*Range Menace*

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# MEDUSAHEAD

## Range Menace

ROBERT E. HIGGINS AND PAUL J. TORELL\*

**M**EDUSAHEAD, (*Elymus caput medusae* L.), is a winter annual grass. It was introduced from Spain or Portugal. Although the first large infestation was in Oregon, it now is a problem in the surrounding states. Idaho has nearly 750,000 acres of range land infested with this serious weed. This is an increase of nearly 500,000 acres since 1955. Its aggressive spread on cheatgrass ranges practically eliminates most other forage plants. Medusahead competition is most severe where there is over-use of desirable species.

Major infestations occur in Gem, Payette, and Washington counties. Smaller, though serious, stands are present in Ada, Adams, Elmore and Nez Perce counties. Minor infestations occur in Boise, Canyon, Owyhee, Idaho and Latah counties.

Medusahead receives its name from its long twisted awns which resemble the snake-like hair of a maiden in Greek mythology. In thin stands and with scattered plants, it branches from the crown with slender stems 8 to 24 inches tall. In the extremely dense stands which often occur, the typical plant is single-stemmed. The

head without the awn is 1 to 2½ inches long. The 2½-to-4-inch awns are flat, spreading and barbed. The grass matures about 10 days later than cheatgrass and is therefore conspicuous because of its light green color. As it reaches maturity, infested areas assume a purplish cast, then a light straw-colored appearance. The awned heads cause dead growth to form a spongy mat which decomposes slowly. This mat not only creates a serious fire hazard but also impedes livestock grazing because the awns remain sharp-pointed.

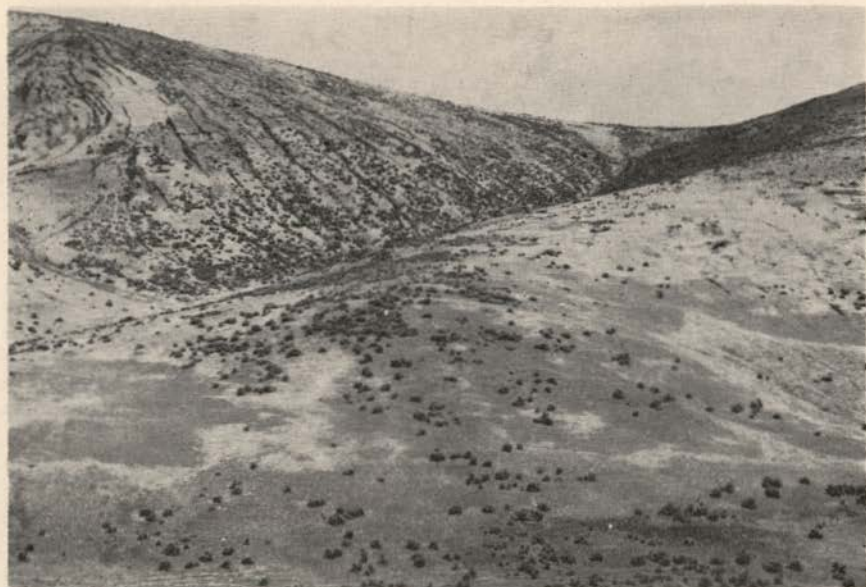
Medusahead causes serious loss to the livestock industry. The primary loss is the reduction of forage on the infested areas. Estimated loss to Idaho range users amounts to about \$3.5 million annually.

Medusahead threatens all of the 6,000,000 acres of cheatgrass ranges in Idaho. Infestations of these lands could mean almost total loss of the range.

The long, rough awns and the sharp, hard seeds can cause injury to the eyes and mouths of both sheep and cattle. The awned seeds are blamed for sores in the flanks of the sheep. Wool is docked because of the presence of medusahead seed.

\* Extension Agronomist, Agricultural Extension Service; and Assistant Agronomist, Agricultural Experiment Station, respectively.





A typical medusahead-infested range in southwestern Idaho.

## Control

No practical way to control large stands of medusahead is available. Temporary (1-year) control of the weed can be accomplished by mold-board plowing, disc plowing, disking, or by applying 2 pounds of dalapon per acre from mid-April to early May.\* All of these treatments are more effective if the medusahead litter is first removed by burning. However, unless a forage species can be established to compete with medusahead, the area will be quickly reoccupied by the weed. The University of Idaho is conducting reseeding research that will permit the establishment of forage grasses on medusahead ranges.

In the absence of a control method for large areas, every effort should be made to prevent infestation on clean ranges. The following steps are recommended:

1. Those concerned with range use should familiarize themselves with the appearance of medusahead.
2. Make annual surveys of holding corrals, unloading chutes, stock driveways, and watering sites.
3. Range riders should investigate "off-colored" patches of grass from mid-June to early July.

\* Observe Food and Drug regulations regarding pastures.

4. Provide appropriate safeguards when livestock are moved from medusahead ranges to those not infested. July to late fall is the period when medusahead seeds are most likely to be spread by livestock.

If small patches of medusahead are found on a previously uninfested range, the area should be carefully surveyed to

determine the extent of the infestation. If the infestation is small, diuron (Karmex) applied at a rate of 20 pounds per acre can be used to eradicate the weed. However, diuron will cause soil sterility for several years, and it is expensive, therefore it is practical to use it only on small patches of medusahead on an otherwise "clean" range.

**PESTICIDE RESIDUES:** These recommendations for use are based on the best information currently available for each chemical listed. If followed carefully, residues should not exceed the tolerance established for any particular chemical. To avoid excessive residues, follow recommendations carefully with respect to dosage levels, number of applications, and minimum interval between application and harvest.

The grower is responsible for residues on his crops as well as for problems caused by drift from his property to other properties or crops.

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**SEE YOUR COUNTY AGENT FOR FURTHER INFORMATION  
ON IDAHO WEEDS AND THEIR CONTROL**