

HALOGETON—

Intermountain Range Menace



Halogeton in full seed, Russian thistle in right background.

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PREVENTING LIVESTOCK LOSSES

Greatest livestock losses have come between September and May when the animals have eaten cured plants, but halogeton is probably poisonous at all stages of its growth. It is dangerous to assume that the growing plants are not poisonous. Chemical tests show that the plants contain high percentages of oxalates throughout their life.

Livestock numbers and range-use seasons must be adjusted to increase the amount and vigor of forage plants. Such improvements will pay dividends in both halogeton prevention and reduced livestock losses.

A New Range Menace

In 15 years, halogeton has come into and made large areas of Intermountain livestock range almost useless for grazing. Innocent in appearance, it has made a name for itself through its ability to poison and kill sheep in large numbers and without warning, and reports of cattle deaths from the weed are becoming more numerous. As yet there is no known remedy or cure for halogeton poisoning. To maintain the range livestock industry at its present productive level, everything possible must be done to stop the spread of this range menace.

HOW TO RECOGNIZE HALOGETON

Halogeton plants resemble Russian thistle except at seed stage. At that time, they look more like one of the docks. Here is how to tell halogeton from Russian thistle: Halogeton leaves are weiner-shaped, $\frac{1}{4}$ to $\frac{5}{8}$ inches long with a slender bristle about $\frac{1}{8}$ inch long at the tip. Russian thistle leaves are longer and more slender, narrowing gradually to sharp points which become "stickery" when ripe. Flowers of halogeton are tiny and do not have spiny scales around them as do the thistle flowers.

Young halogeton plants are bluish-green with fleshy leaves. The stems are green or often reddish when young, straw-colored or still reddish when ripe. At seed stage, plants are usually covered with masses of the thin, light-colored, or reddish scales which enclose the seed.

FACTS ABOUT HALOGETON

No one as yet knows the actual growth limits of halogeton. It grows best on bare and disturbed soil and thrives where the native plant cover is thin or low in vigor. Over-grazed ranges are open invitations to its spread. It does not seem able to compete with stands of grasses or other vigorous perennial cover. Ranges in good condition stand a much greater chance of surviving its attacks. Bringing rundown ranges back to good condition is an essential step in halting halogeton's spread.

Halogeton does well on sagebrush and shadscale ranges. It grows in areas where precipitation ranges from 4 to 15 inches or more and at altitudes that range from 3000 to 6000 feet. So far it has not appeared on heavily wooded lands, but small patches have been located among scattered juniper trees.

Halogeton seeds do not germinate until rather late in the spring. Seedlings and young plants grow fast and flower between June 15 and July 15. They usually produce ripe seed by September and generally lose their winged seeds by November. Plants in dense stands may not grow over 3 inches tall. Widely spaced plants may reach a height of 2 feet or more. Roots often go down 3 feet or more and spread at least that far sidewise.

Report any new patch of halogeton to your county agent. Faithful attention to this problem now may save millions of dollars in future losses.

CONTROLLING HALOGETON

Killing any small patch of halogeton when it is first discovered and before the seeds ripen is an absolute MUST if the weed's spread is to halt. Treat these small patches any time. Treat large patches in July for best kills.

Above all, do not graze livestock on infested areas after August. Animals grazing on halogeton-infested ranges after the weeds have ripened will carry the seeds in their coats and possibly in their droppings. These seeds can and will infest new areas and lead to further losses.

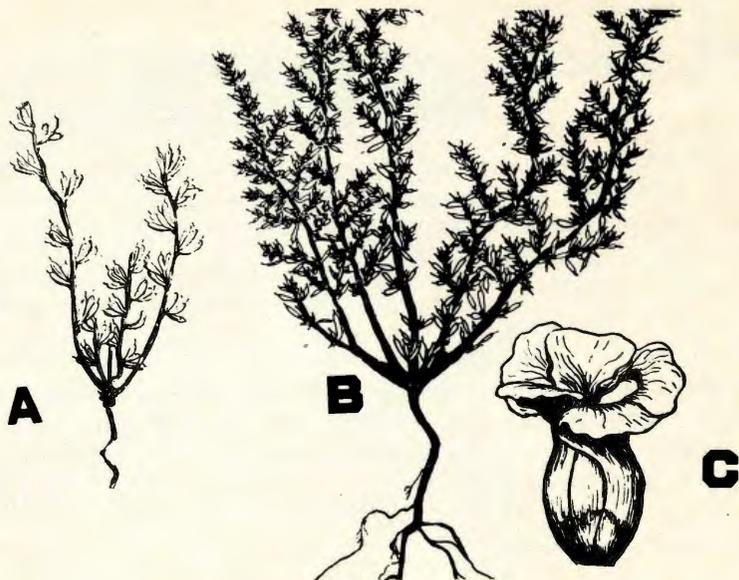
Experiments on the chemical control of halogeton made in 1950 show that the so-called "heavy esters" of 2,4-D give the fastest kills. The plant tends to die slowly when the amine forms of 2,4-D are used. With the amines, add about 1 gallon of thin stove-oil and 1 pound of common detergent to the water-spray mixture per acre. This speeds the plant kill. The 2,4-D weed-killing chemicals are safe to use, non-poisonous and non-explosive. They kill the weed and leave the grasses.

Results to date show that halogeton control requires 2 pounds of 2,4-D per acre. Any spray rate up to 50 gallons of spray solution per acre is satisfactory. Spray a wide area around the patch; don't skimp on the edges. A once-infested area must be watched for several years for halogeton seedlings that may appear.

Weed control on the range, like weed control on farm lands, has no short cut or one-shot cure. The fight against halogeton will take time, money, effort, and cooperation.

The number of acres that economically can be sprayed with 2,4-D will depend upon the value of the land, the size of the infestation in relation

Halogeton showing (a) seedling, (b) mature plant, (c) winged bract.



to the size of the range unit and whether the range is privately or publicly owned. If chemical control is used, this must be combined with reseeded and other range improvement practices.

Management alone brings great improvement on ranges where considerable perennial vegetation remains. For badly rundown ranges covered with annuals or other undesirable plants, reseeded is the only way for quick improvement. Most sagebrush ranges can be re-seeded with crested wheat-grass or other hardy grasses. Shadscale ranges are more difficult to reseed, and further tests are needed before definite recommendations can be made concerning them.

Reseeded ranges must be protected from grazing throughout the entire first year and the growing season of the second year after seeding. Otherwise the work and expense of reseeded may be lost and the ground left bare and wide open for halogeton to re-invade.

Stands of sagebrush or other shrubs should not be burned or destroyed in other ways unless one is sure of quickly replacing this cover with something better.

The best long-term control is through good range management. Keep ranges in such condition that halogeton will not thrive on them. As long as there are large areas of overgrazed ranges, there will be continued danger from halogeton and other range weeds.

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