

Canada Thistle Proves One Of Worst Pests In Country; Found In Area

By HAROLD SCHIEFERSTEIN
Canada thistle is one of the worst weeds in the United States. Thirty-seven states have declared it noxious. Its creeping root habit and ability to produce numerous seeds causes it to spread rapidly. It undoubtedly is the most widely scattered noxious weed in the country.

Canada thistle is adapted to the northern tier of states where conditions are ideal for its propagation. In Oregon it has been estimated that at least 50,000 acres of cultivated land are infested. In addition, an unknown acreage of brush and timber land is also infested. The weed has gained a considerable foothold in Klamath County and patches may be found on cultivated land, range land, pastures, fence rows, ditch banks, feed lots, roadsides and waste places.

Canada thistle is easily distinguished from other thistles by its slender stems, small heads and creeping underground roots that frequently send up new shoots. Plants may reach a height of four feet or more and are usually found in dense patches.

Leaves are usually long and narrow, attached directly to the stem and sharply indented or ruffled or crinkled, having sharp spines along the margins. The stems and upper side of the leaves are usually a darker green than are the undersides. Flowers vary some-

what as to color and may be red, purple, lavender or white and are quite fragrant. Horses are fond of the blossoms and become skillful in nipping them off the plants, in spite of the numerous spines.

Many seeds are produced in each fertile head and each seed is equipped with a tuft of hairlike appendages which are capable of carrying the seeds for long distances. When seed heads ripen they burst open and the seeds float away on the slightest breeze. These may lodge nearby or may rise to a great height and be carried for miles before they settle back to earth.

Other ways in which the seeds spread is in grass and crop seeds. It is difficult to clean out of some crop seeds. One of the chief means of spread is in hay. Seeds may go through the digestive tracts of animals, uninjured, and by this means be spread to all parts of a farm. Germination is usually higher.

Farming implements may also spread the weed. Plows and harrows may cut off pieces of the roots and carry them to other parts of the fields where they can start new patches.

Combines, hay balers, trucks and the like, used on thistle-infested farms often carry the seeds to thistle-free farms.

Water is another important means of spread. Seeds float easily and may be carried for long

distances when streams are at flood stage. Irrigation ditches may carry the seeds from one farm to another.

Losses due to Canada thistle because of the actual loss of land use and the additional farming expense are great.

Canada thistle can be controlled, if steps are taken with eradication in mind, rather than just annual control. Both cultural and chemical methods have proven effective in this area. In each case some expense will be involved and success depends a good deal on how well the method is carried out.

Larger infestations found on cultivated land might best be controlled by cultivation. A duck-foot cultivator is a good implement to use. This should be used as often as the weed shows above ground, which may be as much as four or five times during the growing season. It is well to let the weeds make a small amount of growth, between cultivations, as this tends to use up the food supply stored in the roots, more quickly.

Tractors should operate at a fairly good speed and duck feet should be kept sharp so that they will cut rather than pull the roots.

If possible, cultivations should alternate, that is, one crosswise of the other. Skips should be avoided.

Following cultivation the area might best be seeded to pasture

as this would allow the use of 2,4-D on any thistles which may come up without injury to the grass.

There are a number of chemicals that successfully control or eradicate Canada thistle. Two types of chemicals may be considered; the soil sterilant types—these leave the soil unproductive for a time, and the non-sterilant kinds which have little or no effect on the soil.

Soil sterilants might best be used on ditch banks, fence rows and places where bare ground is not objectionable—in fact this may even be desirable in some cases. Materials containing sodium chlorate and CMU are effective. These are available under various trade names. Labels on the containers will give directions for use.

Non-sterilant chemicals would include the hormone types such as 2,4-D and MCP. These control annual growth quite well but with only a small amount of root kill, which is essential to eradication.

Amino triazole or ATZ is one of the newer herbicides which has proven very effective on Canada thistle in this area. Experimental plots and field trials of the past four years have resulted in some very excellent control. On several occasions near 100 per cent kills with one application of ATZ has resulted. Amino triazole is a wettable powder now available at most farm stores and is used on Canada thistle at the rate of from

6 to 8 pounds of the product per 100 gallons of water.

Plants are sprayed after they have made considerable growth—July is a good time—and plants should be thoroughly wet. Spray from more than one angle.

Use of a wetting agent in the spray is quite necessary. Commercial wetting agents are available. Lacking these, however, common household detergents may be used at the rate of one pint in 100 gallons of water.

Follow up and respray any regrowth which might occur the next season. ATZ has no lasting effect on the soil.

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Whole Community Moved In Reservoir Project

MOBRIDGE, S.D. (UPI) — The complicated, expensive task of relocating highways, railroads and an entire community so the Oahe Reservoir on the Missouri River can fill to its 23,600,000 acre-foot capacity is about half completed.

Harry Dobbins, resident engineer here in charge of relocations for the U.S. Army Corps of Engineers' Oahe Project, estimates that between 30 and 40 million dollars will be spent on the gigantic task.

The Oahe Dam itself, closed for the first time on August 3, spans the Missouri at Pierre, South Dakota's capital city, in the center of the state.

When the reservoir, ultimately covering 376,000 acres, is filled, water will be backed up the river channel nearly as far as Bismarck, the capital of North Dakota about 250 miles upstream. Filling will require eight to 15 years, depending on river flow.

Mobridge, about 110 miles north of Pierre, derives its name from the railroad and highway bridges that cross the "Mighty Mo" just west of this community of 5,000 persons.

When the Oahe Reservoir is filled, the existing bridges will be

90 to 100 feet under the surface of the artificial lake. So new structures are being constructed to take their place.

The new Highway 12 bridge, 5,058 feet long, should be in use by next fall. Final links of structural steel are expected to be in place this year, leaving only decking and surfacing of the bridge and its approaches.

Another new bridge to carry U.S. Highway 212 over the Missouri at Forest City, 40 miles south of here, has already been surfaced and should be carrying traffic late this fall. The Highway 12 bridge cost about four million dollars; the Highway 212 structure about \$200,000 more since it is slightly longer.

The Milwaukee Railroad's new river crossing, costing more than 10 million dollars, will not be in use until the spring of 1961. It involved more than 22 miles of track relocation, long earth-filled approaches and a concrete-piered steel bridge 2,349 feet long.

A hydraulic dredge was employed to pump river bottom sand 90 feet above the river surface to form the railroad approaches. These involved 6,800,000 cubic

yards of material — more than contained in many of the nation's larger earth-filled dams. To prevent erosion, the dirt is faced with a three-foot layer of rock — 6,000 railroad cars-full — hauled from near Sioux Falls, South Dakota, to prevent erosion.

The only community to be covered by the new reservoir is Pollock, South Dakota, near the North Dakota line. The town has already been moved to a newer, higher site.

Contracts have also been let to move the headquarters of the Cheyenne Indian Reservation from a river-bank site near Forest City to Eagle Butte, South Dakota, 50 miles to the west. This project includes several million dollars' worth of new schools, hospitals and administration buildings.

Other facets of the relocation work include levee strengthening, building a number of smaller bridges, moving a power line and furnishing Mobridge with a new domestic water inlet, sewage plant and airport to replace those to be ruined by the rising reservoir waters.

Dobbins, during a tour of the project with a United Press In-

ternational reporter, said that the entire job involves scores of major contracts and sub-contracts and has brought employment to hundreds of men.

The areas along the relocated highway and near Mobridge's new water works are to be developed eventually as recreation centers. Design of the new bridges took into account the expectation that boating on the new reservoir will become highly popular.

The dam, a unit of the ambitious Pick Sloan plan for development of the Missouri River mainstem, and its reservoir are primarily intended to provide flood control and watts of electricity for the regional power net.

Couple May Invent New Language

COLORADO SPRINGS, Colo. (UPI)—A young American couple has a steady job for the next 15 years—inventing an alphabet and translating the New Testament into it.

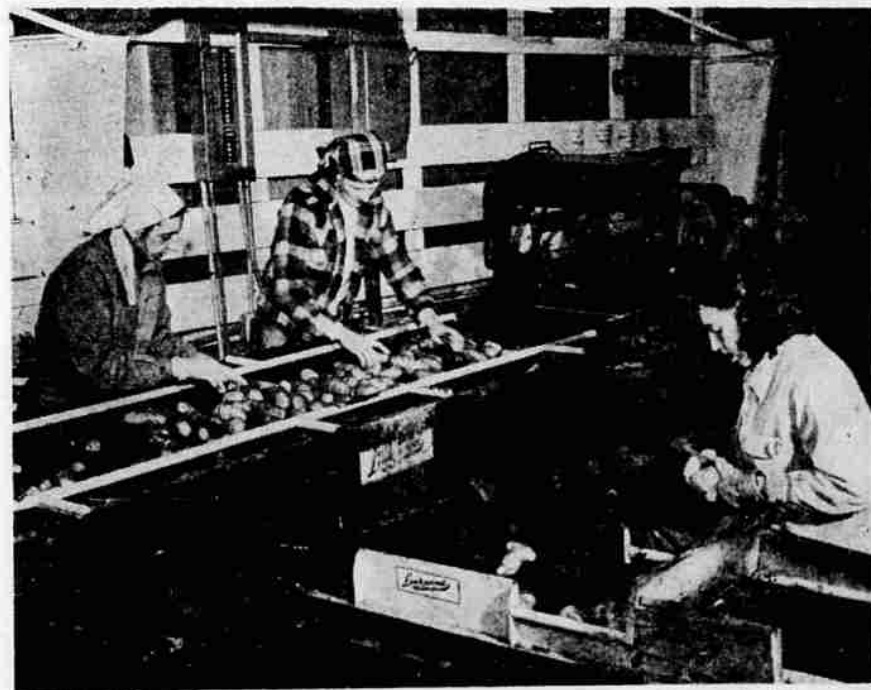
The couple, Mr. and Mrs. Ronald Manus, will do the work among Indians in the remote Amazon Basin of Peru for Wycliffe Translation, Inc., a nonsectarian group which works with Christian missionaries.

Manus said that the founders of the group, W. Cameron Townsend and L. L. Legters, "discovered the natives and Indians received Christianity more readily and made better Christians if they had the Bible and its teachings presented to them in their own language.

But many of them have languages that are spoken and not written, so Wycliffe translators develop the alphabet, print primers, teach the Indians to read and write and teach them Christianity all at the same time.

The Manuses also will work with the Indians as medics and do anthropology research in the 15 years it takes them to develop an alphabet for the unwritten language and then translate the New Testament. Their two children, Rebecca, 22 months, and George, six months, will accompany them.

CONFLICT OF INTEREST
FAIRLEE, Vt. (UPI) — William Clark, 80, and his wife observed their 55th wedding anniversary eight days early so Clark could get away for the hunting season.



SORTING MACHINERY of various kinds is pressed into use in the round-robin operation at the Wolff ranch spud packing sheds. Here Josepha Chaso, Greta Say and Sue Pike operate a Lockwood grader.