Bulletin No. 394 - Wyoming's Primary Noxious Weeds

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Publication Information

University of Wyoming Agricultural Experiment Station (1962), "Bulletin No. 394 - Wyoming's Primary Noxious Weeds." University of Wyoming Agricultural Experiment Station Bulletin 394, 1-40.
Wyoming's Primary Noxious Weeds

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AUGUST 1962 BULLETIN 394
AGRICULTURAL EXPERIMENT STATION
UNIVERSITY OF WYOMING
Description and Distribution of The Primary Noxious Weeds in Wyoming

By L. W. Mitich, B. L. Bohmont, H. P. Alley, and N. E. Harrington*

One of the oldest problems in agriculture is that of the control of weeds. Man has had to contend with weeds since he first began striving to obtain his living from the soil. Although they are his natural enemies, man has come to take weeds for granted because he has become so accustomed to their presence. He has permitted them to take tremendous tolls from his agricultural efforts.

Greater encroachments are made by noxious weeds into the agricultural areas of Wyoming each year. At least one very serious weed is being combated in every important agricultural area in the state.

Boyd and Corkins (14) relate that, when farming was first practiced in Wyoming, there were only a few native weeds to contend with. Not enough attention was given to the purity of imported seeds, and gradually the number of weeds has increased until nearly all of the nation's weed pests which are adapted to Wyoming's soil and climate can be found within the state.

Introduced plants comprise a large proportion of weeds in every country. Being a seed-importing nation, the United States has been especially exposed to the introduction of foreign weeds. Immigrants from virtually every country on earth brought cropseeds, often contaminated with troublesome native weedseed, with them when they journeyed to the new world.

Many noxious weeds are unusually difficult to control in Wyoming, where seeds of all kinds seem to be especially viable and where irrigation and high winds help to disseminate the seeds. It is impractical to include a cultivated crop in the rotation often enough to control certain weeds in irrigated valleys at high elevations.

Ten Wyoming counties have organized noxious-weed control districts. They are: Big Horn, Crook, Fremont, Goshen, Hot Springs, Lincoln, Park, Platte, Sweetwater (Eden-Farson), and Uinta (Bridger Valley-Piedmont). The only information available to shed any light on the number of acres in

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the state infested with noxious weeds is the estimations submitted by county weed-and-pest inspectors or by weed-district-board members. In several instances only part of the county is organized into a weed-and-pest-control district; consequently the acreage estimates for weed infestations pertain only to the organized district areas.

Table 1 shows a five-year comparison of the estimated number of acres infested with noxious weeds. The total number of acres has increased steadily. According to Boyd (13), part of the increase is due to newly infested areas, which were added in certain districts, as well as to more information on farms reported as a result of more extensive mapping and contacts made by county pest inspectors.

This increase, he feels, is not alarming as long as control programs are active and farmers and ranchers become more weed conscious. Boyd observed that, when farmers or ranchers become weed conscious, they locate new infestations of weeds on their property and are willing to report and discuss them as well as follow some method of treatment toward control and eradication.

Bohmont (11) reports that a fairly extensive program of weed mapping and recording started in about 1957 in most of the districts. Several counties have recently acquired aerial photographs for better determination and mapping of infestations. Since more interest is being shown by farmers and ranchers in reporting their individual infestations, more up-to-date records are maintained.

Of the approximately 118,412 acres reported as infested in 1961, an estimated 48,523 acres of various noxious weeds were controlled. This is more than 40 percent control as compared with 32 percent control in 1959 (11).

Yellow toadflax was first reported in 1959, and the number of infested acres almost quadrupled by the following year. Although the State Department of Agricul-

<table>
<thead>
<tr>
<th>Infestations as reported:</th>
<th>1957</th>
<th>1958</th>
<th>1959</th>
<th>1960</th>
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<td>22,036.0</td>
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<td>31,880.0</td>
<td>36,652.0</td>
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<td>11,895.0</td>
<td>19,619.5</td>
<td>23,237.5</td>
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<tr>
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<td>8,633.0</td>
<td>8,095.0</td>
<td>13,914.0</td>
<td>14,357.0</td>
<td>14,261.0</td>
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<td>Russian Knapweed</td>
<td>4,903.0</td>
<td>5,370.0</td>
<td>9,908.0</td>
<td>10,227.5</td>
<td>11,223.5</td>
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<td>Leafy Spurge</td>
<td>723.0</td>
<td>5,648.0</td>
<td>7,204.0</td>
<td>6,772.0</td>
<td>7,681.0</td>
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<td>5,239.0</td>
<td>5,430.0</td>
<td>7,560.0</td>
<td>12,856.1</td>
<td>12,453.5</td>
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<td>Perennial Sow Thistle</td>
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<td>1,251.0</td>
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<td>3,430.0</td>
<td>3,389.0</td>
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<tr>
<td>White-Leaved Franseria</td>
<td>627.0</td>
<td>1,813.0</td>
<td>3,002.0</td>
<td>3,804.6</td>
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<tr>
<td>Yellow Toadflax</td>
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<td>None</td>
<td>16.0</td>
<td>60.0</td>
<td>425.0</td>
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<tr>
<td><strong>TOTALS</strong></td>
<td>44,912.0</td>
<td>61,903.0</td>
<td>88,760.0</td>
<td>107,678.7</td>
<td>118,412.75</td>
</tr>
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</table>
ture does not list yellow toadflax as a noxious weed, it is listed in that category by the weed-and-pest control districts. Now found in six counties, it is on the increase. Yellow toadflax has been included in this bulletin to introduce it to those who are not yet acquainted with this plant and to identify it for those who do not recognize it as the serious weed it is.

Although quackgrass (*Agropyron repens*) ranks fourth in number of acres infested by noxious weeds, it was not included in this survey. In many areas where quackgrass abounds, it is utilized as forage rather than being controlled.

Canada thistle is by far the state’s most noxious weed. It is reported in all counties except Campbell and grows in Yellowstone National Park. In the weed-and-pest-control districts alone, an estimated 36,652 acres are infested. As with the other noxious weeds, no estimations are available for the number of infested acres in the 13 counties not included in the control districts.

Ox-eye daisy is a prohibited noxious weed found only at present in Teton County. Since this county does not have a weed-and-pest-control district, ox-eye daisy does not appear with the state’s other noxious weeds in Table 1.

The distribution of primary noxious weeds as mapped in this bulletin was compiled from data obtained from weed-and-pest-control district inspectors for those counties or portions of counties within organized noxious-weed-control districts. These distributions are more precise, for the most part, than those for the remaining counties, where the mapped distributions are only indicators of where known infestations are located.

The Legislature authorized the state to spend $20,000 as its share in a “three-way” noxious-weed-control program in 1935 because the weed situation had become serious. Under provisions of this program the state paid one-third, the county one-third, and the individual owning the land one-third of the cost of eradicating weeds in legally organized pest districts.

Nearly all of the worst weeds in Wyoming are foreign importations. Until 1937, Wyoming was a dumping grounds for impure seed. The 1937 Legislature passed the “Agricultural and Garden Seeds Act”, which restricted this practice. As a companion measure, the State Department of Agriculture maintained a guarantee against the introduction into the state of primary perennial noxious weeds. The noxious-weed list is changed from time to time in accordance with the changing weed problem. The following 25 weeds are proclaimed as noxious by state law (32).
PROHIBITED NOXIOUS WEEDS

Only the first nine weeds are found in Wyoming, and they are listed in order of number of acres infested.

1. Canada thistle, *Cirsium arvense*.
2. Field bindweed, *Convolvulus arvensis*.
3. White top, *Cardaria* (*Lepidium*) *draba* and *pubescens* var. *elongata*.
5. Russian knapweed, *Centaurea repens*.
15. Yellow nutgrass, *Cyperus esculentus*.

LIMITED NOXIOUS WEEDS

17. *Dodder, Cuscuta* species.
18. *Buckhorn plantain, Plantago lanceolata*.
19. *Puncture vine, Tribulus terrestris*.
20. *Blue-flowering lettuce, Lactuca pulchella*.
22. *Perennial ragweed, Ambrosia psilostachya*.
24. Blue mustard, *Chorespora tenella*.
25. Yellow star thistle, *Centaurea solstitialis*.

*Common in Wyoming at present.
Field Bindweed
(Wild Morning Glory, Creeping Jenny)

Bindweed belongs to the family *Convolvulaceae*, which includes such representatives as the cultivated morning glory and dodgers (*Cuscuta*) (4).

According to Barnum (6), it is an introduced weed which came to America from Europe and spread from the Atlantic seaboard to the Pacific Coast.

Cox (17) states that bindweed is found in most sections of the United States and southern Canada. Although it sometimes occurs on upland soils, Cox reports, “... It is more often on deep bottom lands and on rich prairie soils. The weed is, therefore, at its worst on the most productive and most valuable land.”

Field bindweed was first observed in the United States in 1739 (12). It is not adapted to the Southeastern Region, but is found throughout the rest of the country and causes the most trouble in the western states. It can be observed in all farming areas of Wyoming, causing the most trouble on irrigated farms.

Field bindweed, a perennial, is annually renewed by means of a very extensive root system of succulent underground stems and fibrous roots which may penetrate to a depth of 6 to 10 or more ft., according to the soil formation (6). It usually gains a start in cultivated fields, according to Cox (17), from sowing contaminated cropseed or from scattering viable seed in fresh barnyard manure.

Regarding the growth habits of field bindweed, Crafts (18) states, “The morning-glory plant, if subjected to varying environmental conditions, occurs in a number of forms. Variation in size and form of the leaves and stems is usually associated with the supply of moisture, but may also result from frequent cutting, which tends to deplete the food reserves in the root. The form of development taken by the root system is frequently related to the soil type and to the water table, the taproot being primarily a storage organ. A large proportion of the tissue is alive and respiring. This necessitates an oxygen supply during the growing season, and it will be found that all old roots are of such form that only the current season’s growth actually penetrates below the summer water level. Consequently, in localities where there is a high water table, the taproot may branch at a depth of 2 ft. or less, while in other localities it may penetrate to a depth of 10 ft. or more before branching profusely.”

Robbins et al. (23) state the European authorities list field bindweed as somewhat poisonous because of purgative properties, but American authorities list it only as slightly toxic, if at all.

(Map on page 14)
White Top (Perennial Peppergrass, Hoary Cress)

White top is a member of the mustard family, Cruciferae. This family is characterized by its cruciform flowers, composed of four somewhat similar petals abruptly spreading in the form of a cross, and by its 2-valved seed pod or silique (8). A pungent or mustard-like taste is peculiar to the family. The common weedy mustards and wild radish are other well-known crucifers.

\textit{Cardaria draba}, sometimes referred to under its old name \textit{Lepidium draba}, is a native of central Europe and western Asia. According to Robbins et al. (28), white top is common throughout Europe and in the British Isles. They state that its presence in the United States was first noted in 1889 about the seaports of New York, Washington, and elsewhere, indicating introduction in ballast. Almost simultaneously, however, it was found in the alfalfa-growing sections of the Southwest, which suggests introduction in imported alfalfa seed. It is now well established and a serious pest on the East Coast, in some central states, and on the West Coast. It has perhaps given the most trouble in the Rocky Mountain region.

In Wyoming there are two common and distinct plants called white top. They are very similar in general appearance but differ in seedpod characteristics. \textit{Car-}

daria draba} has glabrous fruits (smooth pods), while \textit{Cardaria pubescens} var. elongata has pubescent fruits or fuzzy pods. The habits of these two white-top species are very similar. A third species, \textit{Lepidium latifolium}, or giant white top, is also found in many localities in the state. It resembles the two previously mentioned species although the latter is generally taller in stature; hence its name. Robbins et al. (28) report that this species is well established in parts of Mexico and was introduced along the New England coast.

Bellue and Bell (10) describe white top as an erect perennial, 8 to 20 in. high, often becoming lodged in age. The first leaves on new plants are often much larger than later ones. The upper stem leaves are sessile, strongly clasping the stem with earlike lobes. The basal leaves are more slender; they narrow into a short petiole.

The flowering branches bear numerous showy, small white flowers on very slender stems. The inflorescence has a flat-topped appearance. A field in bloom has a solid, snowy-white appearance; hence the name.

Boyd and Corkins (14) state that some livestock will eat young plants, but the foliage becomes coarse, bitter, and woody as the plant matures. It has a disagreeable mustard taste.

Gates (21) reports that white-
Top roots have been found as deep as 30 ft. underground. The plant starts growth very early in the spring, and after blooming the seedstalks die, but other leaves form and the plants remain green until frost, if moisture is available (14).

(Map on page 16)
**Russian Knapweed**  
*(Turkistan Thistle)*

Russian knapweed is a native of southern Russia and Asia Minor to Afghanistan. Ball and Robbins (2) state that it is a pernicious weed in the Crimea and other parts of southern Europe and Russia and that it was introduced into California between 1910 and 1914 in impure Turkistan alfalfa seed and also probably in sugar-beet seed. According to Boyd and Corkins (14), it was first reported in Wyoming in 1924. Despite the fact that knapweed is a comparatively new weed in the United States, it has gained a foothold and is spreading rapidly. It is now becoming a well-known pest in nearly all of the irrigated areas of the state and in some dryland communities, and Boyd and Corkins (14) recognized it as the most serious weed pest in Wyoming in 1940.

The genus *Centaurea*, to which Russian knapweed belongs, includes such common ornamentals as Dusty Miller (*C. cineraria*), Corn Flower or Bachelor’s Button (*C. cyanus*), and Sweet Sultan (*C. moschata*) as well as such well-known weeds as Yellow Star Thistle (*C. solstitialis*) and Purple Star Thistle (*C. calcitrapa*) (5). Although closely related to the star thistles, Russian knapweed differs from them in bearing no spines or bristles.

Russian knapweed is similar to Canada thistle in general appearance, but differs in having smaller heads and smaller, smooth leaves. Boyd and Corkins (14) list its chief distinguishing characteristic as its black or dark-brown, scaly roots. The horizontal underground roots may connect several apparently independent plants.

Thornton and Durrell (31) reported that knapweed seedpods have repeatedly been found in imported sugar-beet seed, but fortunately few pods contain mature seed. This probably served as a means of spreading on farms.

Leaves on mature stems are small and narrow with unbroken edges. As described by Ball and Robbins (2), the ends of the leaf blades are narrowed, with small, sharpish tips. Leaves and stems are covered with short, stiff, sticky hairs that are irritating to the skin. Leaves at the base of the plant are large and similar to dandelion leaves, but those toward the top of the stem are smaller.

Young stems of Russian knapweed are covered with soft, gray nap, usually present on the branches. Stems normally grow 3 or 4 ft. high. The plant has very little forage value, according to Boyd and Corkins (14), either green or dry. It appears to be distasteful to animals, the stems being stiff and woody even when young. The mature stems are hard and harsh.

The flowers somewhat resemble
those of the common bachelor button and are borne on rather long, leafy stems.

Ball and Robbins (2) state that the seeds are not readily carried by wind as they are quite heavy, and the tuft of hairs which they carry is short. Moreover, since the seeds are borne in a cup-shaped head which does not open widely at maturity, ready dispersal by wind is prevented. Yet this means of spread can not be entirely ignored.

(Map on page 18)
**Canada Thistle**

*Cirsium arvense*, the field thistle of Europe, is reported by Hayden (25) as indigenous throughout Europe, Asia, and Northern Africa (Tripoli). In Europe it extends to Scandinavia and northwest to Asia, where it has spread over Siberia, through China, Japan, and southeasterly to Afghanistan. Hansen (23) infers that it was introduced into Canada at an early date through impure farm seeds and mentions that it was well known in Vermont as early as 1795, when it was officially recognized by law. Its very early introduction into Canada undoubtedly accounts for the statement of some of the earlier writers that the pest is native to that country. It now occurs in Canada from British Columbia to Newfoundland (22).

Hansen (22) reports that the pest was introduced into Virginia during the Civil War, probably by means of baled hay sent to feed the horses of the Union Army. This vicinity still marks practically the southern limit of the Canada thistle range. He further states that this weed was not reported west of the Allegheny Mountains until after 1835.

Nelson (27) observed a patch of Canada thistle in a stockyard on a farm near Sheridan in July 1896 and states that it was also reported from there, with specimens, in 1895.

Hansen (22) describes Canada thistle as “an erect perennial, growing from 1 to 4 ft. in height. The leaves are from 2 to 7 in. long, green on both sides, and are usually armed with numerous hard, slender, sharp-pointed spines.” One variety has leaves practically free of spines. The leaves appear first as rosettes. If the rosette state is formed early, the upright flowering stalk will appear during the same season, whereas, if the rosette appears late, the flowering stalk will not develop until the following season.

Detmers (19) showed experimentally that these plants are dioecious. Isolated pistillate colonies bear no seed, but mixed colonies, including both staminate and pistillate plants, bear abundant seed. Detmers found that pistillate colonies growing within 200 to 300 ft. of staminate colonies, a distance which makes insect pollination possible, bore some seed.

Hayden (25) describes the ways in which Canada thistle increases vegetatively. First, the upright shoots or rhizomes are able to produce roots and buds on any node; hence when cut in sections new plants may grow from the nodes. Secondly, the roots, both horizontal and upright, may produce buds and roots at any point, which gives them ability to grow more new plants per unit of mass than the stem shoots, which have buds at intervals of 1 to 2 in. Roots, both
horizontal and vertical, when cut into sections $\frac{1}{8}$ to $\frac{1}{4}$ in. in length, grew into plants.

*(Map on page 20)*

**NOTE:**
In each map on pages 14 to 27, solid-shaded areas indicate dense stands of the weed. The dotted areas represent those where the weed is common but occurs only in scattered stands.
(Wild Morning Glory, Creeping Jenny)
Distribution of White Top
(Perennial Peppergrass, Hoary Cress)
Distribution of Russian Knapweed
Distribution of Leafy Spurge
Leafy Spurge

*Euphorbia esula* L. is a long-lived, deeply rooted perennial herb 8 in. to 3 ft. tall with simple or clustered stems topped by a many-rayed umbel. As described by Bakke (1), the leaves are without petioles and are bluish green in color. The flowers are somewhat inconspicuous and greenish yellow in color. The plants occur more often in clumps than singly, and for that reason spurge infestations may be seen from a distance. During late summer the leaves become brownish orange in color. When the leaves, stems, and root-stocks are injured they exude a milky juice. The plant is one of the first weeds to resume growth in the spring.

Leafy spurge responds readily to the soil-moisture supply. Bakke (1) observed that when the ground is moist the leaves become larger and more abundant and the individual plants taller. Under such conditions flower and seed production is abundant. Under extremely dry conditions the plant often ceases to grow and does not blossom. Such a condition is met with during July and August, when the rainfall is low.

This weed propagates by means of seeds and roots. Its root system is extraordinarily efficient. Bellue (9) reported that the roots penetrate into the soil in excess of 15 ft. and make competition difficult for other plants. Hanson and Rudd (24) found that pieces of roots as small as ½ in. long and about ¼ in. in diameter produced new shoots which grew very rapidly. Pieces of roots 3 in. long by ¼ in. in diameter produced new shoots from at least 6 in. deep. Small or large pieces of the roots will withstand up to 2 to 3 hours of drying in the hot sun before they are killed.

Through its seeding and by the deeply penetrating roots, individual plants of leafy spurge soon produce patches where no other plants can establish themselves. Fix (20) states that the well-developed food-storage system enables this weed to live over long periods, allowing leafy spurge to withstand cultivation better than many other perennial weeds.

Leafy spurge occurs in pastures and in fields of small grain, corn, and forage crops, along ditches, in waste places, or in wooded areas, and if left undisturbed the areas become larger year by year. On account of its acrid latex, Bellue (9) reported that neither sheep nor cattle will eat leafy spurge. Sheep in an enclosed area, however, will eat it if starved. She also reported that leafy spurge has long been suspected of causing livestock poisoning.

*Euphorbia esula* is not indigenous to the United States but has been introduced from Europe where, according to Bakke (1), it was known as early as the year 1000, when it was designated as wolf’s milk. In many localities in
Europe it still is known by this name. The species is known to occur in Germany, Sweden, Finland, Spain, Italy, Roumania, Russia, Siberia, and Iran. It has long since been introduced into China and North America.

This weed is not a new plant to North America or to the United States. According to Britton (15), it was collected as early as 1827 at Newbury, Mass. The plant is known to occur from the Atlantic to the Pacific.

It is difficult to state definitely the time and manner of introduction of *Euphorbia esula* from Europe. Batho (7) reports that it was introduced into southwestern Minnesota in oats brought from south-

(Continued on page 30)
ern Russia in 1890. In Manitoba the weed is particularly abundant on the land farmed by the Russian Mennonites.

Boyd and Corkins (14) state that leafy spurge was introduced to Wyoming only in relatively recent years and that it is now found throughout the state.

Leafy spurge is a member of the spurge family, Euphorbiaceae. The genus Euphorbia is a large one made up of some 700 species, the majority of which are cactus-like African succulents, the familiar Crown of Thorns (E. splendens) being an example. The popular poinsettia of the Christmas season is also an Euphorbia, (E. pulcherrima). Comparatively few species occur in North America, but some are found in southwestern United States and are drought tolerant.

(Map on page 22)

White-Leaved Franseria
(White Ragweed)

Botanically, franseria is related to the ragweeds and poverty weed. Of Wyoming’s seven major noxious weeds, franseria alone is native. Bohmont (12) states that it is a native of the Plains Region, extending from the Missouri River westward. Boyd and Corkins (14) reported it as a native on the heavier soils around lake beds and “buffalo wallows” in eastern Wyoming. Nelson (27) found it to be a common weed in the state in 1896 and states that it is difficult to eradicate as it adapts itself to all soils. He also states that in some localities it defied all attempts to remove it and observes that “it readily crowds out all garden or cultivated crops unless hand weeding is repeatedly resorted to.”

According to Boyd and Corkins (14), its elaborate and extended root system makes it a most difficult weed to control on dry lands when it once becomes established. It is most common in southeastern Wyoming but has been found growing in other sections of the state as well, sometimes on irrigated lands.

White-leaved franseria is distinguished by its low-growing habit, its burlike seedpod, and the fact that the irregular leaves show two colors (14). The top side of the leaves is an ordinary green, while the lower side is whitish gray in color.

(Map on page 24)
**Perennial Sow Thistle**

The genus Sonchus belongs to the chicory family (*Cichoriaceae*), which is characterized by the presence of a milky juice and flowers with a strap-shaped corolla. Other common representatives of the family are chicory, dandelion, lettuce, and salsify.

Stevens (30) states that there are 40 or 45 species of *Sonchus*, of which three are widely distributed as weeds. According to Ball and Robbins (3), *S. arvensis* is common in Britain and extends over the whole of Europe and Russian Asia except the extreme north.

Perennial sow thistle was reported in the United States as early as 1814, where it was found in Pennsylvania (30). It is now found generally spread throughout southern Canada and the northern United States, where it is a serious weed pest.

Ball and Robbins (3) describe perennial sow thistle as being a slender plant 2 to 5 ft. high with horizontal, thickened roots which grow to be 18 ft. long, and vertical, thickened roots that may go to a depth of 3 ft. or more and develop buds even at a depth of 18 or 20 in. Growth may take place from pieces of roots cut up by cultivating machinery. Under favorable conditions a piece of root ¼ in. in length will develop new plants. The stems are angled and hollow, and the leaves vary in size from 6 to 12 in. and also in shape. The upper leaves may be entire, toothed, or shallowly cut and somewhat clasping, while the lower ones are stalked, usually deeply cut, with prickly segments which point backward.

The flowers resemble those of dandelions, are a bright yellow-orange, and are closed in bright sunlight. The seeds bear a tuft of reddish-brown hairs and are carried naturally by wind.

Stevens (30) states that perennial sow thistle seedlings show little ability to establish themselves in bare soil except where moisture conditions are favorable, such as pond or river margins. They are able to establish themselves in ground more or less covered with plant growth or old material, as in lawns, meadows, uncultivated fields, and waste ground.

Boyd and Corkins (14) mention that the main flowering period is from about July 1 to August 15 and that cross pollination by insects is necessary for abundant fruit development.

Perennial sow thistle was introduced into Wyoming before the turn of the century, and Nelson (27) reported it as spreading in the Evanston area in 1896.

(Map on page 26)
Yellow Toadflax (Wild Snapdragon, Butter-&-Eggs)

Yellow toadflax is a member of the Figwort family, Scrophulariaceae, and is related to the ornamental snapdragons (Antirrhinum) of flower garden or greenhouse cultivation. This plant bears very showy yellow blossoms and is, in fact, an escape from flower gardens and border plantings, having been introduced from Europe for this purpose. It is also found native in Asia (26).

Linaria vulgaris is a perennial which reproduces by seed and deep underground rootstocks, the latter characteristic making this weed very difficult to suppress. It is found in gardens, waste places, fields, and roadsides and generally grows in circular patches (29). It thrives in grassland as well as in cultivated areas. Cattle dislike its taste and odor. Seed-bearing plants are frequently transported in baled hay (29).

Yellow toadflax was first reported in Crook County from the Bear Lodge area near Sundance. It has since been found in Carbon, Fremont, Lincoln, Sweetwater, and Teton Counties, an indication that this weed is being introduced into new areas.
Ox-Eye Daisy

*Chrysanthemum leucanthemum* var. *pinnatifidum* is a perennial which reproduces by seed and short rootstocks. It is a member of the Composite family and was naturalized from Europe. It is also a native of Asia (16).

Ox-eye daisy is a beautiful ornamental and the origin of some of the cultivated chrysanthemums, but it is objectionable in pastures because of its ability to give milk a disagreeable taste and its habits of crowding out grass. It has also been reported as being mildly poisonous to stock (4).

This weed has erect stems which are simple or forked near the top of the plant, and it forms patches due to its short rootstocks (26). The showy yellow blossoms are borne in July.

Muescher (26) reports that ox-eye daisy is very common in the northeastern states, being less common southward and westward to the Pacific Coast. The only occurrence of this weed in Wyoming is approximately a 15-acre infestation in Teton County west of Moose.
ACKNOWLEDGMENTS

Thanks are extended to the individuals listed below who at the time of the survey were instrumental in the collection of data throughout the State of Wyoming. Their contributions are greatly appreciated. Without their cooperation this survey could not have been conducted.

Albany County
Wesley J. Seamands

Big Horn County
Eldon Kinghorn

Campbell County
Melvin E. Lynch

Carbon County
Perry B. Coxe

Crook County
Lyle Crosby

Fremont County
Howard Millsap

Goshen County
Allen Kelley

Hot Springs County
Clarence Clapp

Johnson County
Robert E. Quade

Laramie County
Wilbur T. Brettell

Lincoln County
Jesse A. Hurd

Natrona County
Gordon Smith

Niobrara County
Sylvestre E. West

Park County
Gil Youngs

Platte County
George Grant

Sheridan County
Pete Jensen

Sublette County
Carl Urbigkit

Sweetwater County
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Thanks are further extended to Dwight Lambert, chief, noxious weeds division, Nebraska Department of Agriculture, Lincoln, for loan of the illustration "White-leafed Franseria," page 31, and to Mrs. A. Kamm, Laramie, for the cover-page design.

LITERATURE CITED


