WOODLANDS COUNTY
AGRICULTURE SERVICES BOARD
Tall Buttercup/Ox Eye Daisy Control Program

- $20,000 in rebates available to municipal landowners per year.
- $15/acre rebate payable (one time) to you for controlling your Tall Buttercup/Ox Eye Daisy with a registered residual herbicide at label rates (eg. Restore II, Grazon XC, Reclaim herbicides)
- $10/acre rebate payable (one time) to you for controlling your Tall Buttercup/Ox Eye Daisy with a registered non-residual herbicide (eg. MCPA Amine, Curtail M) at label rates along with the application of a nitrogen based fertilizer (minimum of 50 lbs/acre of product)
- $5/acre rebate payable to you for controlling your Tall Buttercup/Ox Eye Daisy with a registered non-residual herbicide (eg. MCPA Amine, Curtail M) at label rates or tillage
- Mowing, cutting, swathing, burning and grazing will not be considered control options and will not be eligible for the rebate
- $1,200 rebate per landholder is available per year
- Public relations, extension and cooperation are our first priorities in Tall Buttercup/Ox Eye Daisy control
- Herbicide application rental equipment is available for rental from Woodlands County
- Enforcement of the Weed Control Act for Tall Buttercup/Ox Eye Daisy control **will** be taken for non-compliance

For more information on the Tall Buttercup/Ox Eye Daisy Control Program, Policy, application, rental equipment contact:

Dawn Fortin, Agriculture Services Manager at
780-584-3866 or toll-free at 1-866-584-3866

Restore II Herbicide

- Residual broadleaf weed control herbicide
- Will provide up to three years of weed control
- Controls Tall Buttercup, Ox Eye Daisy, Canada Thistle, Scentless Chamomile, Tansy and Dandelion
- No grazing restrictions (remove 3 days prior to slaughter)
- Do not seed to sensitive crops (Alfalfa, Clover and Canola) for three years minimum
- Each 9.7 L jug will treat 10 acres at a cost of approximately $36/acre
- Minimum of 80 L/ac of water is recommended
- Can be purchased at most farm retail stores (UFA, Crop Production Services, Co-op, etc.)

Grazon XC Herbicide

- Residual broadleaf weed control herbicide
- Will provide up to three years of weed control and up to five years of residual activity
- Controls Tall Buttercup, Ox Eye Daisy, Canada Thistle, Scentless Chamomile, Tansy and Dandelion
- No grazing restrictions (remove 3 days prior to slaughter)
- Do not seed to sensitive crops (Alfalfa, Clover and Canola) for five years minimum
- Each 10 L jug will treat 5 acres at a cost of approximately $51/acre
- Minimum 80 L/ac of water is recommended
- Can be purchased at most farm retail stores (UFA, Crop Production Services, Co-op, etc.)

Reclaim II Herbicide

- Residual broadleaf weed control herbicide
- Will provide up to three years of weed control and up to five years of residual activity
- Controls Tall Buttercup, Ox-eye Daisy & Canada Thistle as well as brush such as wolf willow, buckbrush and wild rose.
- No grazing restrictions (remove 3 days prior to slaughter)
- Do not seed to sensitive crops (Alfalfa, Clover and Canola) for three years minimum
- Each 1.84 kg container will treat 10 acres at a cost of approximately $44/acre
- 80 L/ac of water is recommended
- Can be purchased at most farm retail stores (UFA, Crop Production Services, Co-op, etc.)

Navius Flex Herbicide

- Residual broadleaf weed control herbicide - will provide up to three years of residual weed control
- Controls a wide spectrum of weeds including Tall Buttercup, Ox-eye Daisy, Common Tansy & Canada Thistle as well as small brush and woody plants at the labelled weed application rate.
- No grazing restrictions (remove 3 days prior to slaughter)
- Do not seed to sensitive crops (Alfalfa, Clover and Canola) for three years minimum
- Each 1.36 kg container will treat 20 acres at a cost of approximately $44/acre
- Requires non-ionic surfactant
- 80 L/ac of water is recommended
- Can be purchased directly from supplier (Advantage VM (Geoff) 780-785-9616)) geoff@advantagevm.ca
- A sign off sheet with Bayer CropScience must be completed by the landowner prior to purchase of the residual product Navius FLEX herbicide

MCPA Amine 600

- Non-residual broadleaf weed control herbicide
- Will provide Tall Buttercup/Ox Eye Daisy control for one year
- Do not graze or cut for green feed/hay for 7 days after spraying
- No re-cropping restrictions
- Each 10 L jug will treat 5.8 acres at a cost of approximately $11/acre
- Minimum of 40 L/ac of water recommended
- Can be purchased at most farm retail stores (UFA, Crop Production Services, Co-op, etc.)

Curtail M

- Non-residual broadleaf weed control herbicide
- Will provide Tall Buttercup/Ox Eye Daisy control for one year
- Do not graze or cut for green feed/hay for 7 days after spraying
- Do not seed to sensitive crops such as legumes for one year after treatment
- Each 10 L jug will treat 19 acres at a cost of approximately $16.5/acre
- Minimum of 40 - 60 L/ac of water recommended
- Can be purchased at most farm retail stores (UFA, Crop Production Services, Co-op, etc.)

Tall Buttercup *(Ranunculus acris)*

Provincial Designation: Noxious

Overview:

Perennial that spreads only by seed.
Tall buttercup contains a bitter, irritating oil called protoanemonin that is toxic to livestock (especially cattle) and other grazing animals. While generally avoided by grazers, poisonings can occur when fresh stems and leaves are consumed. Dried plants are no hazard as the toxic oil evaporates quickly. In mild cases, tall buttercup causes irritation or blistering of the skin, mouth and digestive tract. In more severe cases, it can cause paralysis, convulsions and death. Fresh tall buttercup, or hay in some cases, consumed by lactating animals can result in the production of less milk and may turn the milk a tinted red color and give it a bitter taste. Animals tend to avoid grazing tall buttercup if given a choice, but this may also allow it to dominate. Tall buttercup is an alternate host for Anemone Mosaic and Tomato Spotted Wilt virus.

Habitat:

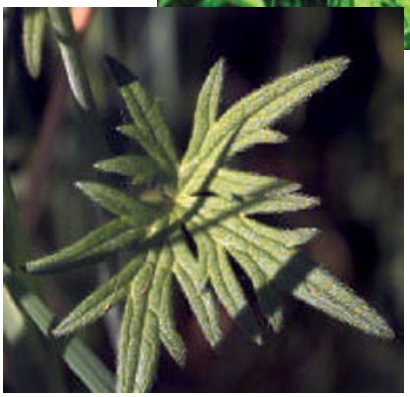
Tall buttercup prefers moist to well-drained humus soils but can survive coarse, gravelly soils given sufficient moisture. Infestations will decrease dramatically in very dry years, but rebound and expand in wet years.

Identification:

Stems: Stems are erect, hollow, and sometimes hairy, highly branched in the upper part of the plant, and grow to 90 cm tall.

Leaves: Leaves on the lower stem are 3-8 cm long, on long stalks, deeply divided into 3-5 lobes and can be softly-hairy on both surfaces. The upper leaves are smaller and are divided into 3-4 narrow segments. Basal leaves have no stalks, 3 simple lobes and are 1-2 cm long. The amount and depth of the leaf lobes is highly variable.

Flowers: Flowers are bright yellow, on long stalks, and have 5 petals, each 10-14 mm long. The upper surface of the petals is waxy, giving them a shiny, lacquered appearance.



Seed: Each plant produces about 250 seeds which can remain viable for 2-4 years. The tiny, brown-black seeds are carried easily by water. Seed clusters are prickly and can attach to hair and clothing.

Prevention:

Use only certified weed-free grass and forage seed. Do not sell or purchase contaminated hay. Good pasture management will help prevent spread.

Control:

Grazing: Not grazed.

Cultivation: Pastures severely infested with tall buttercup can be ploughed and reseeded to an annual crop for several years to reduce infestations. Tall buttercup does not persist under cultivation.

Mechanical: Close mowing prior to flowering wil prevent seed production and limit an infestation's spread. Hand-pulling can be effective on small infestations. Be sure to wear gloves and long sleeves as the plant's juices can cause blistering and redness.

Chemical:[1] There are a number of herbicides registered for use on tall buttercup for both agricultural and range. Consult your local Agricultural Fieldman or Certified Pesticide Dispenser for more information.

Biological: None researched to date.

1 Always follow the product labels. The use of pesticides in any manner not published on the label or registered under the *Minor Use of Pesticides* regulation constitutes an offence under both the *Federal Pest Control Products Act and Alberta's Environmental Protection and Enhancement Act.*

Alberta Invasive Plants Council
www.invasiveplants.ab.ca
Phone: (403) 982-7923
Alberta

Oxeye Daisy *(Chrysanthemum leucanthemum* syn. *Leucanthemum vulgare)*

Provincial Designation: Noxious

Overview:

Introduced from Europe in the early 1800's primarily as a grass seed contaminant, and subsequently spread as an ornamental, Oxeye daisy has become a serious invader of pastures and natural areas throughout North America. It is a perennial herb that reproduces both by seed and shallow rhizomes. Single plants quickly become patches that continually increase in size. Plants flower June-August and its seed germinates throughout the growing season. Oxeye Daisy and the very similarly flowered Scentless Chamomile can be considered conspicuous, as there are no native white flowered daisies in Alberta.

Habitat:

It grows in a wide range of environmental conditions, and flourishes in nutrient poor soils. It can mature, flower and produce seed even at high elevations – 1000m or 3000'. Prefers full sun but tolerates partial shade.

Identification:

Stems: Multiple, un-branched stems grow up to 1 m tall and are smooth, frequently grooved and generally hairless.

Leaves: Basal and lower leaves are lance-shaped with "toothed" margins and petioles that may be as long as the leaves. The upper leaves are alternately arranged, narrow, and stalkless with wavy margins. Leaves progressively decrease in size upward on the stem.

Flowers: Flowers are borne singly at the end of stems and can be up to 5 cm in diameter, with yellow centers, and 20 to 30 white petals radiating from the center. The petals are slightly notched at the tip.

Seed: Individual plants can produce over 500 flat, black seeds that are viable in the soil for 2-3 years or more. Seeds have no dormancy requirement and are viable upon dispersal.

Prevention:

The availability of closely related plants through the nursery and seed trade contradicts the perception of Oxeye as an invasive plant. Shasta daisy is a cultivar (originated from) of Oxeye and was originally sterile, but can revert back to being fertile. Oxeye plants can be found sold through nurseries and as seed in wildflower mixes. The two plants can cross breed, resulting in an invasive hybrid that is difficult to distinguish from either parent. This fact makes public awareness critical to prevention and control. Do not purchase nursery plants or seed labelled as Oxeye daisy. Consumers should carefully read the contents of so-called 'wildflower' seed mixes and avoid those containing invasive ornamentals. Healthy, fertilized grass pastures are resistant to invasion.

Control:

Grazing: Not grazed. Livestock may physically damage oxeye plants by trampling under high stocking rates, but the subsequent overgrazing of desirable vegetation and soil disturbance will worsen the infestation. Plants consumed by dairy cattle can give the milk an off-flavour.

Cultivation: Because of its shallow root system, oxeye daisy is easily killed by intensive cultivation.

Mechanical: Repeated mowing prevents seed production, but also can stimulate re-sprouting of stems. Hand-pulling or digging before flowering is effective, but it is important to remove as much of the fibrous roots and rhizomes as possible. Repeated efforts will be required – both throughout the growing season and in subsequent years.

Chemical:[1] Several herbicides are effective at controlling Oxeye when applied to actively growing plants up to the flowering stage. Gylphosate, 2,4-D and dicamba can be used – picloram can provide very good control when used on the proper soil types. Consult your local Agricultural Fieldman or Certified Pesticide Dispenser for more information.

Biological: None researched to date.

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