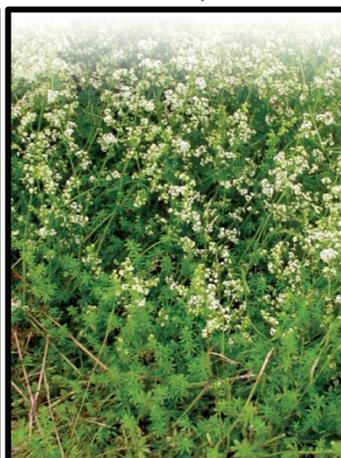


CLEAVERS/FALSE CLEAVERS

Galium aparine/*Galium spurium*



Overview:

Both species are very similar and designated Noxious, however *G. aparine* is generally considered native and *G. spurium* introduced. Cleavers is often called “stickywilly” in the U.S. Growing as annuals or winter annuals, cleavers are increasingly becoming a problem in annual crops. The rambling, tangled stems pull crop plants down, decreasing yield, and get tangled in harvesting equipment. Cleavers seed contaminates and de-values crop seed, particularly oilseed crops. The flowers are hermaphroditic (have both male and female organs) therefore the plant is self-fertile. The entire plant is covered in hooked hairs which cling to feathers, hair and clothing.

Habitat:

Prefers moist, loose soils and semi-shade. It tolerates drier sites, but the leaves become scorched in full sun.

Identification:

Stems: Stems are square, covered with bristly hairs, and can grow to two metres in length. The stems are too weak to support themselves and so cling to other plants.

Leaves: Leaves have whorls of six to eight narrow leaflets covered with hooked hairs. *G. spurium* leaves have a notch at the tip.

Flowers: Flowers are tiny, four-lobed, greenish-white and are very inconspicuous.

Seeds: Seed nutlets are spherical, 1.5-3 mm long, borne in pairs and covered in bristly hairs. Approx. 300-400 seeds per plant.

Prevention:

Use certified weed-free seed and clean farm/ harvesting equipment.

Control:

Cultivation: Use cultural practices to increase the crop's competitive abilities, such as rotating vigorous cereals such as barley and wheat with canola.

Mechanical: Shallow tillage prevents lifting the seedbank closer to the surface. Tilling established infestations before flowering is most effective during hot, dry weather that will desiccate the roots. Mowing will not control cleavers because of the plant's prostrate growth habit.

Chemical: Results of the field trials consistently showed that tank-mixing quinclorac with any of the herbicide standards improved cleavers control in canola. Applying clomazone prior to seeding canola followed by an in-crop application of a herbicide standard also provided acceptable control.

Clomazone and quinclorac significantly reduced both cleavers biomass and seed contamination.

Cleavers resistance to Group-2 herbicides is already noted throughout Alberta and Saskatchewan, and cleavers rank second among weeds likely to develop glyphosate resistance in the Black Soil Zone. Better control of cleavers is key for resistance management as smaller population size means weeds are less likely to have resistant individuals present.

(<https://canoladigest.ca/science-edition-2016/herbicides-that-could-improve-cleavers-control/>)

Biological: Indigenous fungal pathogens have been identified by the Alberta Research Council.

