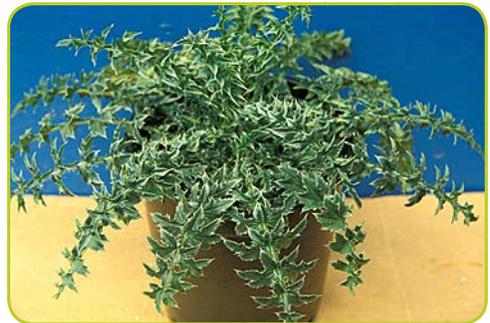


PLUMELESS THISTLE

(*Carduus acanthoides* L.)



PLUMELESS THISTLE

State Noxious Weed List: **No.**

Plumeless thistle first was introduced into North America in the 1870s along the East Coast as a contaminant in ship ballast. Plumeless thistle is one of the most common invasive thistles in the mid-Atlantic and upper Midwestern states. Although found as far west as Washington state, it is less common than musk and bull thistle and is not listed on the North Dakota state noxious weed list.

Identification and growth form:

Plumeless thistle is a winter annual or biennial and generally is found only in eastern North Dakota. Plumeless thistle tends to be shorter than other noxious biennial thistles and generally reaches 1 to 4 feet tall. The stems are winged and very branched, giving the plant a candelabrum appearance. The wings are very spiny and are continuous along the stem and not interrupted as musk thistle. The leaves are deeply lobed, narrower than musk thistle and very pubescent underneath. Each lobe has one to three very sharp marginal spines. Flower heads are small (0.5 to 1 inch) but very numerous and pink to purple or very rarely white. The bracts are very narrow and resemble spines. The heads can be singular or in clusters of two to five. The achenes are small, gray to light brown with a distinct, light apical collar and slightly curved.

Rosettes of plumeless thistle resemble musk thistle rosettes, but are more deeply lobed and much more pubescent. Plumeless thistle rosettes have wavy leaves with yellow spines along the white leaf margins and resemble holly. The plant bolts and flowers in late April to early May.

Why is this plant a concern?

Plumeless thistle can become very weedy and form dense colonies, especially along waterways, ditches and roadsides in summers following wet falls. Plumeless thistle seldom is found in cultivated fields, even when infestations are nearby in roadsides or pastures. The numerous spiny branches make walking through infestations by people or grazing by animals very difficult.

How do I control this plant?

Chemical. Fall is the preferred time for applying herbicides for plumeless thistle control. Fall treatment allows more time for herbicide application than in the spring and thistle control is generally best with fall treatments. Seedlings that emerge in summer after tillage or previous herbicide applications will not bolt but remain in the rosette stage. Plumeless thistles are most susceptible to herbicides in the rosette form.

Plumeless thistles can be controlled effectively with Milestone (aminopyralid), Stinger, Transline or Curtail (clopyralid), Tordon (picloram), or dicamba (various) or dicamba plus diflufenzopyr (Overdrive). Products that contain metsulfuron (Escort, Cimarron Max, others) will control biennial thistles in the spring and will eliminate seed production when applied in the bolting to bud growth stages.

Cultural. Repeated mowing will reduce plumeless thistle population but must be done prior to flowering or viable seed will be produced. Plumeless thistle will not survive tillage operations used in cropland.

Biological. Both *Rhinocyllus conicus* and *Trichosirocalus horridus*, which were released for musk thistle control, attack plumeless thistle. Biological control of biennial thistles are in the research/implementation stage.