

# NOXIOUS WEED ALERT

## SPOTTED KNAPWEED

(*Centaurea biebersteinii*)

- Spotted knapweed grows 8 to 40 inches tall. The upright stems are somewhat branched, mainly in the upper half.
- The leaves are blue-gray in color. Those at the base of the plant are about four inches long and divided into lobes. Leaves along the stem are smaller.
- The flower heads are solitary at the ends of clustered branches.
- The flowers, which bloom from June to October, are pink to purple, sometimes white.
- The seeds are brown, 1/8 inch long, notched at the base, with a short tuft of bristles at the tip.
- The bracts, which occur at the base of the flower head, have a spinelike fringe on the upper edge and at the tip; the center “spine” is shorter than the others. The bracts usually have a black spot on the tip, but this may be lacking on white-flowered plants. (If it is missing, the shorter central “spine” is a good ID feature).



Bracts are modified leaves, usually near a flower. In most knapweed species the bracts form a cup-like structure that supports the flower head. Some knapweeds are similar looking and differences in the bracts can be an important way of distinguishing species.

### Look-a-likes:

At least six other knapweed species occur in Clallam County; all of them could be mistaken for spotted knapweed. For pictures, descriptions and key differences among knapweeds, see the web site of the Clallam County Noxious Weed Control Board

### Distribution:

Spotted knapweed is fairly common on roadsides and disturbed sites on the east side of Clallam County, with one major infestation in and around the Carlsborg Business Park.



### WHY BE CONCERNED?

- Spotted knapweed is an aggressive and invasive species that takes over pastures and meadows, displacing grasses and other more palatable and valuable forage plants.
- It reduces the water storage capacity of soil and increases erosion.

**Spotted knapweed is a Class B designate weed.**

**Control is required in Clallam County.**

## Ecology:

- Spotted knapweed often grows in dry meadows, or on industrial land such as gravel pits, roadsides and equipment yards—places from which seed can easily disperse.
- It is a perennial which reproduces mainly by seed.
- The seeds are too heavy to be distributed very far by wind alone; they fall to the ground within a few feet of the plant. Vehicles, livestock or contaminated hay or seed often disperse seed over longer distances.

## CONTROL

### Prevention and early detection are the best means of control.

- **Practice** good pasture management; avoid overgrazing, irrigate and fertilize as needed, and reseed bare ground. A healthy pasture will resist weed invasion.
- **Use** weed free hay and seed; avoid introducing weed contaminated soil.
- **Clean** equipment that has been used in infested areas.
- **Remove** seedlings when young; newly established plants can usually be pulled without leaving root fragments in the ground.
- **Replant** newly weeded areas with desirable (preferably native) plant species that will discourage reinfestation.
- **Dispose** of weeds properly, bag or burn seed heads or fragments that may resprout.
- **Monitor** site for several years; promptly remove new seedlings.

**HANDPULLING** can be effective for small infestations, especially when the ground is moist, but disturbing the soil may increase germination of seeds still present in the soil.

**MOWING**, if used as a means of control, should be done after most of the flowering has ended, but before seeds have matured (flower is open less than 10 days). At this time there is not usually enough moisture available for the plants to regrow.

**Caution:** Anyone working with spotted knapweed should wear protective gloves and avoid getting sap into open cuts or other abrasions.

**BIOLOGICAL CONTROL:** Two gall flies, *Urophora affinis* and *Urophora quadrifasciata*, a moth, *Metzneria paucipunctella*, and a beetle, *Shenoptera jugoslavica*, have been introduced into North America for biological control of knapweeds.

**HERBICIDES** can be effective, but should always be applied with care. Do not apply herbicides over or near water bodies. Read the label to check that you are applying an herbicide in the right place, to the right plant, at the right time, and in the right amount. For perennial weeds, long term control requires stopping seed production **and** attacking the weed's root system. Translocated herbicides, (ones that move throughout a plant's system) are recommended.

- Selective herbicides such as Curtail™ (2,4-D + clopyralid) or Stinger™ (clopyralid) are effective, but consult the label for crop rotation restrictions before using either of these. Several crops may be injured up to four years after application of the herbicide.
- Roundup™ (glyphosate) is also effective on spotted knapweed, but it is non-selective and will kill other plants also, including grasses that might outcompete knapweed seedlings. Application of Roundup™ should be followed by revegetation.

None of these herbicides will prevent germination of weed seeds already in the soil, so monitoring and retreatment are necessary.

Prepared by the Clallam County Noxious Weed Control Board Revised 11/2000.

For more information call **360-417-2442**

or see [www.clallam.net/weed](http://www.clallam.net/weed)