

## Western prairie fringed orchid



Photo courtesy of USFWS

**Scientific Name:** *Plantanthera praeclara*

**Description:** Western prairie fringed orchids grow up to three feet high and can have up to two dozen flowers arranged on its stalk. Its flowers are large, white and have fringes on the margins giving them a feathery appearance.

**Preferred Habitat:** The orchid prefers high quality moist, tall grass prairie. The orchids appear in only two counties in North Dakota, Ransom and Richland. Most of the orchids in North Dakota are located in the Sheyenne National Grasslands in the Southeast corner of the state. North Dakota has the largest population left in the world, with over 2000 orchids.

**Life History:** The western prairie fringed orchid is a long lived perennial that arises from a fleshy tuber. Vegetative shoots emerge in late May. The orchid flowers in June and July and is pollinated by hawk moths. The plant can display flowers for about 21 days with individual flowers lasting up to 10 days.

**Reason for Decline:** The conversion of prairie to cropland is the main reason for the orchid's decline. Fire suppression, overgrazing, non-native plants and herbicides have contributed to the decline. Hydrological changes that draw down or contaminate the water table may also adversely affect the orchid.

**What property owners with western prairie fringed orchids on their land can do:** Landowners in western Richland or eastern Ransom Counties that have Western prairie fringed orchids on their property are asked to implement the following practices to reduce orchid exposure to herbicides and other pesticides:

### **Ground Applications:**

1. If plants can be covered with plastic (which should be opaque if the weather is sunny), no use buffer is necessary. Plastic that may contain pesticide residues may be disposed of in landfills.
2. If the wind is blowing **away** from any orchid sites, use the following buffers between sites of application and orchid plants:

<u>Wind speed (mph)</u>	<u>Buffer</u>
3-7	20 yards
7-10	10 yards

3. If the wind is blowing **toward** the orchid sites from the field, a 40 yard buffer is adequate.

### **Aerial Applications:**

1. If plants can be covered with plastic (which should be opaque if the weather is sunny), no buffer is necessary. Plastic that may contain clopyralid residues may be disposed of in landfills.
2. If there is a foliated shelterbelt or other vegetation higher than twice the aircraft spray height between the application site and the orchid site, the buffer size may be reduced by one-half of the recommendations below.
3. If the wind is blowing **away** from the orchid sites, use a 100 yard buffer.
4. If the wind is blowing **towards** the orchid sites:
  - a. Keep a 2 mile buffer from orchid sites, or
  - b. Adjust droplet size to BCPC>coarse= (volume median diameter >370 microns) and keep a 250 yard buffer from orchid sites, or
  - c. Apply by ground application equipment and keep a 40 yard buffer from orchid sites.

Growers affected by these recommendations (i.e., within 2 mile of orchid sites) and who use any pesticides near orchids are requested to observe orchids periodically throughout the growing season and report anything that looks adverse, even if not apparently due to pesticides, to the Fish and Wildlife Service or the North Dakota Department of Agriculture.

All other conditions, precautions, and restrictions on the pesticide labeling including endangered species bulletins must still be followed.