Field Bindweed

(Convolvulus arvensis)

Field bindweed, often called wild morning glory, European bindweed, and creeping jenny, is a perennial weed that is found in all sections of the Northwest. Field bindweed is a serious problem in the summer fallow wheat areas. It is a nuisance in home gardens, orchards, and irrigated crops.

Field bindweed prefers deep, well-drained land; however, it adapts itself to shallow, less productive lands.

**Plant characteristics.** Field bindweed spreads both by seed and a creeping root system. The stems are prostrate or twining. The leaves are more or less arrow-shaped, usually about 1 to 2 inches long. The flowers are bell-shaped, generally about 1 inch across, and the color varies from white to light pink. The seeds have a rough surface, dark brown in color, flattened on one side, and rounded on the other. The seeds are about 1/8 inch long. The main root system can penetrate well-drained soils as much as 20 feet. In addition to the main root system, there is an underground system of lateral root-like stems (rhizomes) from which new sprouts arise. These lateral roots are a factor in the rapid spread of bindweed patches. Their creeping root systems are rapidly spread by tillage implements.

**Chemical.** Chemical control methods depend on the extent of the field bindweed infestation, the use of the land where the field bindweed is growing, and whether or not the area can be irrigated. Check the label for grazing and harvesting restrictions when crops are involved.

2,4-D. Selective spraying with 2,4-D is an economical and practical control method for extensively infested areas. Wheat, oats, barley, corn, and grass crops can be selectively sprayed for field bindweed control. 2,4-D sprays must be timed carefully to control field bindweed without damaging grain and grass crops. Small grains and grass have two sensitive growth periods to 2,4-D—one during the seedling stage, the second during the one to 14 days green regrowth stage.

For best control with 2,4-D, field bindweed should be sprayed during the early preblossom stage of growth. The growth rate of field bindweed is usually 1 inch per week after the first few days of growth. The 2,4-D sprays are effective at 1/4 to 1 pound acid equivalent of 2,4-D per acre in 3 to 40 gallons of water.

The 2,4-D sprays can be better timed for spraying field bindweed when the infested area is sprayed during the summer fallow season. The infested field should be cultivated until the first of July. Field bindweed should be sprayed with 3 pounds acid equivalent of 2,4-D about mid-August when it is in the early blossom stage of growth. Amine and acid formulations of 2,4-D give better control of field bindweed than do the ester formulations. This is apparently due to less volatilization during hot dry weather. For best field bindweed control with 2,4-D, the infested area must be sprayed each year. During the grain season, spraying can be done before harvest or immediately following harvest.

**Dicamba** (Banvel). Banvel at 6 to 7 pounds acid equivalent (4 to 8 quarts) applied when the bindweed is growing actively is effective for selective spraying. The herbicide is applied in crop and pasture areas. Usually this is applied by mixing the Banvel in 100 gallons of water and spraying to wet the plants. One hundred gallons per acre is required with 150 to 250 gpm to adequately cover the plants.

When field bindweed cannot be seeded on Banvel sprayed areas within a year, these areas can be allowed to revert to native vegetation. Broadleaf crops such as alfalfa, potatoes, etc., should not be allowed to grow in Banvel sprayed areas. Annually, the area is re-sprayed for 4 to 5 years after Banvel spraying. Broadleaf crops such as alfalfa, potatoes, etc., should not be planted in Banvel sprayed areas within the first year of application. This restriction is not usually necessary on small plots of crop land.

**Picoluron.** Picloram (Tordon) is one of the more effective herbicides for the control of field bindweed. However, it is not registered for use on crop and grazing lands. It can be used on areas not grazed and on waste areas. Care must be taken to avoid drift or other contamination of nearby crop areas because Tordon can be injurious to several crop species.

For spot spraying, use 1-1/2 to 2 pounds of active picloram per acre. Sprays can be applied any time top growth can be observed. Tordon remains active in the soil surface for at least a 2-year period. No crop or grazing area uses are registered for this material.

**Chlorate.** Sodium chloride or borate-chlorate mixtures are effective for controlling small patches of field bindweed. Chlorates are applied under low rainfall conditions in September and October and under high rainfall conditions in April. Chlorates, because of fire hazard, should be applied dry. Clothes and equipment should be carefully washed following the application of chlorate. Chlorate prevents the use of chlorates on crop and grazing lands.

**Tillage.** Field bindweed can be eradicated by a thorough tillage program. Best results are obtained by early spring plowing, followed by thorough cultivation after the field bindweed shows 14 to 14 days green regrowth. Eight to 10 cultivations are needed the first year. The tillage program must be followed for at least 2 years. Tilled areas should be fall seeded to protect the land from erosion during the winter months. The cover crop can be harvested for grain, silage, or pasture. After removing the cover crop, the land should be reploved and cultivated throughout the second summer. The selective use of herbicide sprays is more practical than tillage for the control of field bindweed.

**Hedge Bindweed**

(Convolvulus sepium)

Hedge bindweed is another species of field bindweed similar to field bindweed, but
the flowers and leaves are twice as large. It is less aggressive and is easier to control. 2,4-D, Banvel, and Tordon are effective chemical methods of control. Use the same methods recommended for field bindweed.