

FIELD BINDWEED

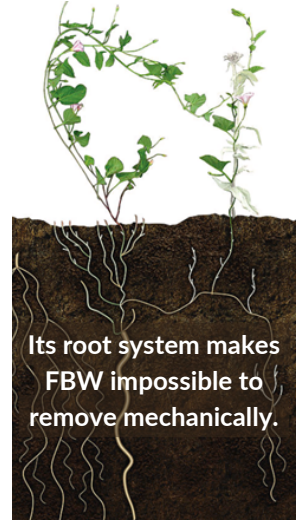
Convolvulus arvensis



WHAT IS IT?

Field Bindweed is a “creeping perennial” vine in the Morning Glory family that was introduced from Europe in the mid-1700s and quickly became a national menace. It spreads from rhizomatous roots and from long-lived seeds and is second only to Canada Thistle in its infestation of croplands in the U.S. Its vines climb up and entangle other plants while its extensive root system can make it impossible to manage. It is currently found throughout the U.S.

Funnel-shaped flowers and arrowhead-shaped leaves



Its root system makes FBW impossible to remove mechanically.

HOW TO IDENTIFY FIELD BINDWEED

STEM AND LEAVES

FBW has slender green, twisted, vining stems that extend out in every direction, growing up to 6 feet in length. Leaves are dark green, smooth or slightly hairy, and arrowhead-shaped with two prominent lobes at the base. FBW vines grow along the ground forming extensive circular patches. Vines will climb and entangle anything they encounter, including other plants.

FLOWERS

Like other plants in the Morning Glory family, flowers are funnel-shaped, and they open in the morning and twist closed at night. Fused petals are pinkish white and emerge from the leaf axils (where leaf attaches to stem).

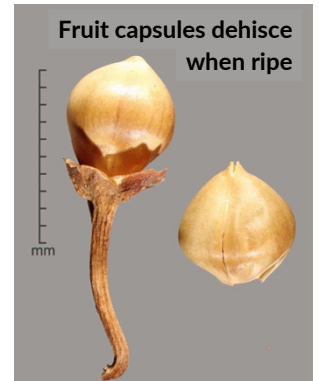
FRUITS

Once pollinated, flowers grow into capsules that dehisce (pop open) when ripe, releasing two rather large, hard-shelled seeds.

REPRODUCTION AND SPREAD

SEEDS

Each flower produces just two seeds from its fruit, resulting in about 500 seeds per plant. Most fall in the soil near the parent plant, but some may be spread by animals after ingestion. The hard seed coat also permits dispersal by water. Seeds can lay dormant in the soil for at least 50 years.



ROOTS

FBW roots reach depths of 20 feet and spread laterally in all directions. Buds along these lateral roots send up new plants, allowing FBW to reproduce vegetatively and create an ever-expanding patch that is all one plant.

LIFE CYCLE

FBW is a long-lived "creeping perennial" which means it can spread from its roots as well as start from seed and a single plant can form a patch that can essentially live forever under the right conditions.



HOW TO CONTROL IT

PREVENTION

Maintaining a healthy plant community, preventing seed production of existing plants, and vigilant removal of all above-ground growth will prevent further spread of FBW.

MECHANICAL

Due to the depth of the roots in established FBW infestations, mechanical control is generally ineffective. However, if the plant pulled or dug out consistently every 2 weeks for 3-5 years, you will eventually exhaust the root system and kill the plant.

CHEMICAL

Herbicide can be used to manage FBW, but applications must be timed to target the root system. The best times to use herbicide are the bud to early bloom stage and in the fall after nighttime temperatures have decreased. 2,4-D is an effective active ingredient, but applications must be repeated continuously for several years.

BIOLOGICAL

Control of FBW with insects is challenging because the extensive root system, which limits control by other methods, also limits the ability of insects to control it. But scientists are currently researching two new insect agents. Grazing field bindweed has proven to be an ineffective management option.

CULTURAL

Perennial grasses can compete well with field bindweed, as they begin growth much earlier in the season and can outcompete FBW for light and limited soil moisture. But FBW will persist under the canopy of other plants and will re-grow vigorously if competitive species are absent.

Thanks to Teton County Weed and Pest for creating this material.