At a glance, field bindweed (Convolvulus arvensis) is a very attractive plant. Behind the facade of its striking appearance, however, field bindweed is an agricultural disaster. So, how do we address this problem? Biological control methods may prove to be the best chance to suppress this rapidly increasing invader. A minute mite, commonly known as a bindweed gall mite (Aceria malherbae), is giving bindweed a run for its “land.”

Field bindweed, known as creeping Jenny, possession vine, or wild morning glory, originated in Europe and poses major threats to the environment and rangeland (R. Hammon, personal communication, December 2004). It is one of the most competitive perennial weeds in the United States. It’s easily recognized by its arrow-shaped leaves and trumpet-shaped flowers. Flower color can vary from white to pink. With its aggressive root system, bindweed is hard to control using mechanical control agents or chemical applications. Its deep, penetrating tap root reaches 20 feet into the ground and removes the limited moisture from neighboring plants that are usually native to the land, thus killing them. Because their roots store 2 to 3 years worth of food, bindweed is very difficult to suppress or kill.

An average bindweed plant produces approximately 500 seeds. These seeds are protected by a very hard coating that allows them to stay viable in the soil for up to 40 years (M. Henry,