Release Site Preparation and Release Forms

Before You Begin

Before releasing biocontrol agents, it is necessary to first prepare the release site by establishing a permanent location marker. The site should then be photographed, and information pertaining to the site and upcoming release should be collected, both of which can be completed with the free Biocontrol app. In the event the Biocontrol app cannot be used, this fact sheet includes release forms and instructions that can be printed and filled out manually. For all releases made, it is best to coordinate release events with county, state, federal, or other relevant personnel.

Establish Site Marker

Place a steel fence post or plastic/fiberglass pole as a marker at the release point to make the point easier to find in future visits (**Fig. 1a**). Avoid wooden posts; they are vulnerable to weather and decay. Markers should be colorful and conspicuous. White, bright orange, pink, and red are often preferred over yellow and green, which may blend into surrounding vegetation. If you're in a place where conspicuous posts might encourage vandalism, mark your release sites with short, colorful plastic tent/surveyor's stakes or steel plates that can be tagged with release information and located later with a metal detector and GPS (**Fig. 1b**). Depending on the land ownership or management status at the release site, it may be necessary to attach a sign to the post or pole indicating a biocontrol release has occurred there and that the site should not be sprayed with chemicals or be mechanically disturbed (**Fig. 1c**).

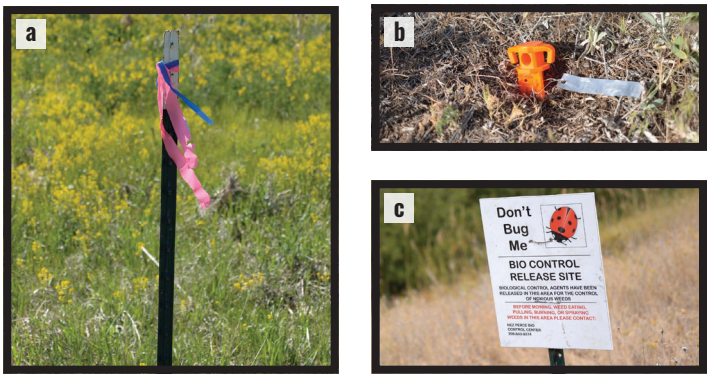

Figure 1. Colorful posts (a) should be used to mark release sites. Where conspicuous markers may encourage vandalism, a smaller stake with a steel plate/tag (b) can be used instead and located later with a metal detector. At some sites, it may be helpful to post a sign (c) indicating a release has occurred and that the site should not be disturbed. (a–c: Travis McMahon, MIA Consulting)

Set Up Photo Point

A photo point is used to visually document changes in target weed infestations and other components of the plant community over time following the release of biocontrol agents (**Fig. 2a,b**). Use permanent features in the background as reference points (such as mountains, large rocks, trees, or permanent structures) and make sure each photo includes your release point marker. Pre- and post-release photographs should be taken from roughly the same place and at the same time of year. Label all photos with the year and location. Keep in mind that it may take a long time (e.g., up to 30 years) to see changes in some target weed populations.

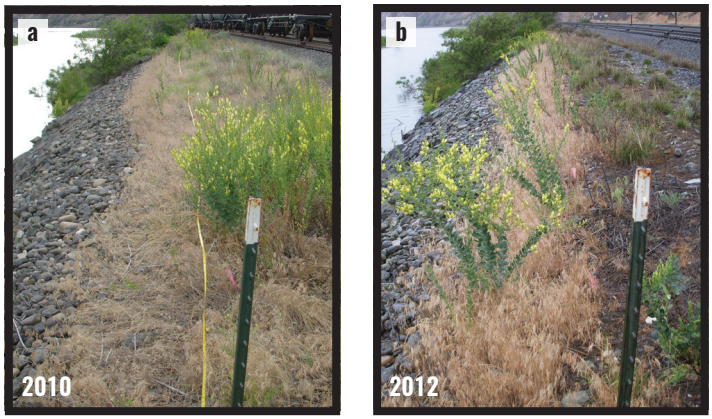

Figure 2. A photo point visually documents changes (if any) in target weed populations over time following the release of biocontrol agents. (a,b: Rachel Winston, MIA Consulting)

Record Information

A generic release form is included on the last two pages of this fact sheet. The best time to record this information is while you are at the field site. Record your name, date, and location (state, county) at the top of the form. In the first section, state the name of the target weed, and the name, number, and life stage of the biocontrol agent you are releasing. Include the source of your biocontrol agent (where you obtained them) along with the date of their collection. The remainder of the first page of the release form pertains to your release site. State the land ownership, GPS coordinates, and give the release site a unique name that will help distinguish it from other release sites in the vicinity. Using the choices provided, describe the weather at the time of release and the physical and botanical features of the site and target weed infestation.

On the second page of the release form are two sections for including a map of the release site as well as directions to the location. In addition to coordinates, creating a physical map of the release site may help yourself and others find the site more easily during revisits. These are especially useful for long-term biocontrol programs where participants are likely to change, and also for release sites in remote locations or places physically difficult or confusing to access. A map should be detailed and describe access to the site, including roads, trails, and unique landmarks that are not likely to change through time (such as rocky outcrops, creeks and valleys). Avoid using changing descriptors such as "red bush" or "grazing cows" and details which may not be obvious to everyone, such as "where the old barn used to be". There are several free apps available that can track and record your route to a release site, which you can later use to return to the release site or share with a cooperator. If your release site is in a remote area with no cell coverage, you can use your vehicle's trip odometer to measure and record mileage between specified locations on your map, e.g., when you turn on to a new road, at cattle guards along the route, and where you park. The map should complement but not replace a physical marker and GPS coordinates.

SUBMIT INFORMATION

Once back in the office or at home, submit the release form and accompanying photos to your local weed control office, land management agency, or other relevant authority or database. Always keep copies for your own records.

Released By:_____ **Release Date:**___/___/___ **State:**_____ **County:**_____
(mm dd yy)

Biocontrol Agent:_____ **# Released:**_____

Target Weed:_____ **Date Collected:**____/____/____
(mm dd yy)

Source of Biocontrol Agents:_____

Biocontrol Agent Life Stage (circle): Larvae Adults

Land Ownership (circle): Private County State USFS BLM COE BOR BIA/Tribe TNC Other_____

Legal: T_____ R_____ Sec_____ Q_____ Lat: Deg____Min____Sec_____ Long: Deg___Min_____Sec_____

UTM: UTM Datum Zone_____ UTM Year_____ UTM Easting: _____ UTM Northing: _____

ENVIRONMENT

Temperature (°F):_____ **Wind:** Calm Light Moderate Strong Gusty **Wind Direction:** N S E W

Weather (circle): Clear Ptly Cloudy Cloudy Rain Snow **Release Time:**_____ AM/PM

Site Aspect (circle): N, NE, E, SE, S, SW, W, NW **Elevation:**_____

Site Slope: Flat (0-10%) _____ Gentle (10-30%) _____ Moderate (30-60%) _____ Steep (>60%) _____

Topographic Position (circle): Valley Bottom Terrace Lower Slope Mid/Upper Slope Crest

Disturbance: (check all that apply, circle most prevalent) Cultivation ___ Fire ___ Flood ___ Grazing ___
Logging___ Roads____ Mining ____ Recreation ____

SITE CHARACTERISTICS

Site Name:_____ **Size of Infestation (acres):**_____ **% Weed Cover:**_____

Est. Weed Height (cm):_____ **Weed Density (# per m^2):**_____ **Dominant Plant:**_____

Distribution of Weed: Isolated_____ Scattered_____ Sc-Patchy_____ Patchy_____ Continuous_____ Linear_____

Phenology: Seedling % ____ Rosette % ____ Bolt % ____ Bud % ____ Flowering % ____ Seed % ____ Dormant % ____

Vegetation Type (circle):
Grassland
Pasture
Dry Meadow
Moist Meadow
Shrubland Steppe
Conifer Forest
Deciduous Forest

Estimate % Cover:
Tree _____
Shrub _____
Forb _____
Grass _____
Litter _____
Bare Ground _____
Rock _____

Soil Texture: (check) Sand___ Silt___ Clay___ Gravel___ Loam___

CONTACT PERSON:
Name:_____
Address:_____
City:_____
State:_____
Phone: _____ - _____ - _____
e-mail:_____

LEGAL LANDOWNER:
Name: _____
Address: _____
City:_____
State:_____
Phone: _____ - _____ - _____
e-mail: _____

Road Map to Site

Site and Vegetation Map

Comments