STANDARD IMPACT MONITORING PROTOCOL

SIMP is a nationally recognized and adopted platform for performing analysis on biocontrol release sites. The data captured is used to document vegetation cover, target weed density, and biocontrol agent abundance. When conducted annually, this monitoring data will document changes that occur over time.

Getting started with SIMP can raise questions about site establishment, proper execution of the protocol, percent cover categorization, data access, and more. This FAQ provides clear answers to the most common questions we receive from partners.

DATA & APPS

Q How can I use SIMP monitoring data?

A Once you use the app or the online form to enter in your data, results are synced with the online map. You can see the data in real time. You can look at other SIMP sites, overlay map layers, look at soil, precipitation, and slope for your areas. To begin your analysis, use the map tools to create reports (digital or print) with interactive charts and graphs comparing years.

Q Are the apps free to use?

A Yes. Funding for the development and implementation has been provided by the Bureau of Land Management (BLM) and United States Forest Service (USFS). The SIMP application is free to use, and we encourage all users to take advantage of the free tools inside the online map.

Q When I download the Survey123 app and open it, it asks me to log in—what do I do?

A You select the “continue without signing in” option below the “Sign in with ArcGIS Online” and “Manage ArcGIS connections” options.

Q This year’s Survey123 SIMP app is not working, what do I do?

A Delete the app entirely and reload it.

TIMING

Q When and how often should we monitor?

A You should monitor once per year at peak biocontrol agent emergence. On each system’s respective 2-pager, you will find suggested target dates. However, these are only approximations, and exact dates will fluctuate depending on your location and weather conditions.

SITE & TRANSECT

Q How many SIMP plots should there be per acre (or hectare)?

A One. If you’re doing paired sites for new candidate agents, they should be at least a mile (1.6km) apart. Otherwise, one SIMP site representative of a larger ecotone is all you need.

Q Is there a standard method for orienting the SIMP transect?

A There are no rules for orienting the SIMP transect within the infestation of the target weed. However, many practitioners consistently orient SIMP transects the same direction, for example south-to-north or east-to-west, to facilitate re-location and re-measurement.

Q What method is used to establish the plot randomly, and is random the best way?

A The instructions say to establish a plot randomly, but in patchy and thinly spread weed infestations, this can be tricky. To randomly place a transect,

stand with your back towards the infestation and throw the quadrat frame into the infestation. Where it lands will be the starting point of the transect, and the first reading will be at the 2-meter mark on the measuring tape to avoid start point bias.

Q Can the Daubenmire frame be placed on *either* the left or the right side of the 20-meter tape?

A The instructions provided on the SIMP system 2-pagers (not the monitoring form) instruct practitioners to place the long edge of the Daubenmire frame parallel to the 20-meter measuring tape with the permanent plot marker in the upper left hand corner. To do this correctly, the Daubenmire frame should be placed on the *right* side of the measuring tape.

Q Should we traverse the transect in a certain way as we monitor?

A The Daubenmire frame will be placed on the right side of the measuring tape, so you should walk on the opposite (left) side of the tape from the initial point to the last (20-meter) point to avoid trampling vegetation that will be monitored.

Q What do we do when the target weed is no longer present on the transect but is still present or abundant at the site but away from the transect?

A Note the infestation density in the comments, but DO NOT move the transect.

Q Is a sweep (as in 10 sweeps) one arc of the sweep net or two arcs (back *and* forth)?

A One arc = one 180-degree sweep.

TARGET WEED

Q Do target weed stem counts only include plants rooted inside the Daubenmire frame?

A Yes. Do not include plants rooted outside the frame that might be overhanging the frame area.

Q Do we include target weed seedlings (germinants) in the count of target weed stems?

A Yes, but if they are not going to go to seed, they should be considered "immature."

Q Are rosettes counted as stems?

A Yes.

Q How do you measure the height of the target weed if you are measuring it when the target weed is in the rosette stage?

A Generally, we measure the height of the longest rosette leaf which gives an indication of plant vigor. If stem counts are rosettes, note this in the comments section of the app or data sheet.

PERCENT COVER

Q Is the percent cover estimation based solely on the vegetation originating inside the Daubenmire frame, or should vegetation originating outside the frame that extends into the frame sample area also be included in percent cover?

A The vegetation cover can originate outside of the frame, but the number of target weed stems and the height of the tallest stem must be from plants originating within the frame.

Q Is percent cover taken as canopy cover from above the frame or from the ground level looking up?

A Canopy cover looking down. This means that the first vegetation type encountered when looking down represents that vegetation cover in the % estimate. If the top vegetation is blocking smaller vegetation below, the smaller vegetation is *not* included in the % estimate.

Q In what vegetation cover category do sedges and rushes belong?

A Sedges and rushes are "graminoids" or monocots and can be lumped with grasses.

Q Rocks fall into which vegetation cover class—bare ground or litter?

A Rock is bare ground.

Q Lichens/ biological crust fall into which vegetation cover class—moss?

A Lichen and soil crusts are considered moss. If it is organic, it is litter; if not it is bare ground.

Q Are dried-up annual grasses (that were green earlier in the season) included in litter?

A This year's vegetation is not considered litter; litter only consists of previous years' vegetation. *This* year's vegetation took up water and other nutrients during *this* growing season.