



County of San Luis Obispo Weed Management Area Quarterly Newsletter

April 2022

To better serve the SLO WMA community in efforts to *educate, coordinate, promote & implement* special and ongoing pest management projects.

The County of San Luis Obispo Department of Agriculture/Weights and Measures

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Artichoke Thistle Control on Mainini Ranch

The California Department of Food and Agriculture designates artichoke thistle (*Cynara cardunculus*) a B-rated weed because it is a pest of known economic and environmental detriment, and of limited distribution. County of San Luis Obispo Department of Agriculture/Weights and Measures (SLO CAC) works with landowners to combat artichoke thistle for the protection of biodiversity and economic value of our lands. For two years SLO CAC's weeds crew has focused efforts to control a large population of artichoke thistle at the Mainini Ranch, located in the Chorro Creek Valley. Applications have ranged from broadcast sprays to backpack and quad applications covering steep terrain, at times using Garlon 4® (active ingredient triclopyr) and at times a combination of Roundup® (glyphosate) and Polaris® (imazapyr). Progress has been made, though diligent follow up by the landowner is critical to the long-term success of this project.



Photo Credit Patrick Z. Wall

Artichoke thistle population on Mainini Ranch.

Roadside Survey and Spraying of Yellow Starthistle

SLO CAC surveys and controls yellow starthistle populations growing along roadsides in the county in partnership with landowners and land managers controlling yellow starthistle infestations on their own properties. This past quarter, SLO CAC treated 204.18 acres of yellow starthistle alongside 265.02 miles of roadside in 35 different locations.

Cooperation for control of this plant and its harmful effects to range and wild land is important among landowners and land managers. If you are a landowner and/or land manager committed to controlling yellow starthistle on your property and border a county road, please reach out to SLO CAC so we can partner with you.

SLO CAC Winter Survey and Treatment Work

- **Castor bean:** 11.08 acres across 7 locations.
- **Jubata grass:** 72.14 acres across 14 locations.
- **Artichoke thistle:** 130.53 acres across 24 locations.
- **Rest harrow (*Ononis repens*):** removed 20 small plants, 1 location



Photo Credit Patrick Z. Wall

Artichoke thistle with Chumash Peak in background on Mainini Ranch.

No-Till Seed Drill Available for Pollinator Habitat Projects

The U.S. Fish and Wildlife Service (USFWS) is offering landowners and project managers the use of the TRUAX™ FLEX-II, a no-till seed drill for pollinator habitat projects. The USFWS created a system to facilitate the lending of this equipment. Landowners and project partners can request use of the seeder. Seeding is anticipated to begin in the late summer or fall.

The USFWS staff provides the TRUAX™ drill, regular maintenance, delivery and pickup, and basic training for proper use of the equipment. The project partner will need to provide seed, a field tractor, and will need to sign a non-obligating agreement for the use of the equipment. The drill is 8'6" wide. The field tractor should preferably be – 40hp or greater, 4x4 probably preferred, hydraulic connections mandatory for raising and lowering of seeder, drop-pin hitch @ 19-21" above ground level. The project partner will not be liable for normal wear-and-tear of the seeder, however, damage and repairs as a result of misuse will be the responsibility of the borrower.

For any questions or further information please contact Colleen Grant (colleen_grant@fws.gov), Mary Teague (mary_teague@fws.gov), or Shawn Milar (shawn_milar@fws.gov).



Photo Credit USFWS

TRUAX FLEX-II seed drill on the field



Photo Credit USFWS

TRUAX FLEX-II seed drill loaded up for transport

SLO Beaver Brigade

Common Reed (*Phragmites australis* cf. subsp. *altissimus*) in the Salinas River

During the January WMA meeting, SLO Beaver Brigade discussed the impacts of common reed in the Salinas River and tributaries. It was unclear if the species they found taking over parts of the Salinas was native or introduced.

Audry Taub of the SLO Beaver Brigade brought a sample of the suspected non-native reed to SLO CAC for submission to the CDFA Plant Health and Pest Prevention Services Laboratory for identification.

The laboratory confirmed the reed was an introduced variety, *Phragmites australis* cf. subsp. *altissimus*, which was rated C in 2016 on the CDFA rating site and is not yet added to the 4500 list (3 CCR 4500).

Be on the lookout for spread of this species and, if possible, map it in CalFlora to track its movement. Check out www.slobeaverbrigade.com to see the group's work.



Photo Credit USDA, Leslie J. Mehrhoff

Broom Sweeping at Hearst Castle

Story by Bob Conlen

Scotch broom (*Cytisus scoparius*) control at Hearst Castle started between 1995 and 1996 to limit burn hazards and limit the plant's spread, as its presence became an obvious problem. The population of Scotch broom at this time occurred in various patches spread over large areas on the ranch with some patches known to be a few acres in size. The first efforts to control the broom were on the Pergola property, a hill next to the castle that is still owned by the Hearst family. The plant was probably planted there as an ornamental, as it is drought tolerant, very fragrant, and somewhat attractive in bloom. It later migrated all over Hearst-affiliated state and ranch properties, often following drainages downhill.

Progression of control methods employed at the ranch were as follows:

- (1) Roundup® (glyphosate) applications made to the broom trunks using wick applicators, which was not effective and does nothing to eliminate the fire hazard.
- (2) Round saw blades placed at the end of weed eaters, which worked with small plants, though in general this use is highly hazardous.
- (3) Plants were cut down with hand pruners, hand saws, and chainsaws (depending on size), resulting stumps were treated with Roundup®, and piles formed of the cut plants were burned. Seedlings and anything missed from this process is caught in on-going follow-up backpack sprays of Garlon® (triclopyr) in the early spring when the broom starts to bloom.

The biggest factor in success at Hearst Castle was the utilization of Cal Fire crews from 1996 to 2012. Cal Fire crews, consisting of a Cal Fire captain and 8-15 California incarcerated men and women, part of The Conservation Camp Program from Cuesta Conservation Camp #24 (formerly known as Camp San Luis) who, when not fighting fires, were available for service in other tasks, such as broom control. These crews efficiently cut, moved, and piled material while parks' workers followed and sprayed stumps. At the time, this was a very economical solution that provided about 5 hours/day of work with an average cost of \$200/day. Scheduling was sometimes hard, though the work achieved was invaluable.

Accomplishing the yearly follow ups is the hardest aspect to achieve final control. There are always plants that get overlooked and new seedlings that sprout, which require hiking up and down steep slopes wearing a backpack to treat these plants with Garlon, while fighting off ticks, avoiding rattlesnakes, poison oak, and mountain lions. This is hard work, and many would prefer planting pansies in the garden! The ranch has learned the follow up work required is crucial and must be done. Other methods employed have only bought time, as the ranch has utilized a dozer to grade the plants down, only to have them all grow back in a few years.

Maintaining progress and reaching final control necessitates at least one person to be passionate and willing to carry out the ongoing planning and hard work. Areas of the Pergola that were once impenetrable thickets of broom are now restored and take minimal effort to maintain.

For any questions about this project please contact Bob Conlen at conlenbob@gmail.com or Laurel Dunning at Laurel.Dunning@parks.ca.gov



Photo Credit Bob Conlen

Park workers and fire crew assessing a broom infested area.



Photo Credit Bob Conlen

Controlled burning of broom.



Photo Credit Bob Conlen

Fire crew cutting down broom.

Lower SLO Creek Flood Plain Preserve – Cape Ivy (*Delairea odorata*) Removal

Story by Jon Hall

The Lower San Luis Obispo Creek Floodplain Preserve (LSLOCFP) encompasses a network of parcels owned and managed by The Land Conservancy of San Luis Obispo County (The Land Conservancy). The LSLOCFP is located along the main stem of San Luis Obispo Creek which contains some of the most habitat-rich reaches of riparian corridor in the watershed. Over the last fifteen years, riparian restoration projects have been implemented along the main channel to improve habitat for numerous wildlife species, including steelhead trout and California red-legged frog. Currently the areas of the LSLOCFP that are suitable for agricultural production are leased by local organic farmers. The future Bob Jones Trail extension will also travel through the LSLOCFP.



Typical Cape ivy infestation along San Luis Creek in the LSLOCFP

Currently, heavy infestations of Cape ivy (*Delairea odorata*) at LSLOCFP are the single greatest threat to the health of the riparian habitat. Cape ivy forms dense mats over trees, shrubs and groundcover, suppressing the growth and regeneration of native plant species and reducing biodiversity. They are also shallow rooted, which can cause erosion and sediment delivery if they displace plants with deeper root structures.

Cape ivy is widespread in all riparian areas on the Central Coast. It is prevalent in the San Luis Creek Watershed upstream of the LSLOCFP. New infestations occur due to floods, from small broken-off fragments floating downstream. Seed is not believed to be a significant source of new infestations. The overall approach on the LSLOCFP is that of containment and long-term management. Complete eradication is unlikely without the entire watershed under control.

To control Cape ivy, The Land Conservancy uses an Integrated Pest Management (IPM) approach. IPM is an effective and environmentally sensitive approach to pest management. It uses current, comprehensive information on the life cycles of pests and their interaction with the environment, in combination with available pest control methods, to manage pest damage by the most economical means, and with the least possible hazard to people, property, and the environment.

A variety of pest control tools are available for Cape ivy. Many tools and techniques integrated together will produce the most desired results. Our management tools for Cape ivy fit into four major categories:

1. **Biological Control** – The US Department of Agriculture is in the initial stages of releasing a tephritid gall-forming fly, *Parafreutreta regalis*, as a biocontrol agent to control Cape ivy in the LSLOCFP. The initial release was successful; numerous galls have been found on the property from multiple generations of the fly. It is still unclear what the overall impact will be to the infestation, but there is hope this will aid in the long-term control strategy.
2. **Cultural Control** – At the LSLOCFP, goat grazing is the primary form of cultural control. In the first year of this program goats were utilized to do an initial biomass reduction. They did an outstanding job of reducing the above ground biomass. This minimized the amount of herbicide required for follow-up work. This was critical to eliminate the risk of drift onto the certified organic orchards surrounding the riparian area.
3. **Mechanical and Physical Control** – To maintain buffers around organic agriculture fields, volunteers and staff were utilized to hand remove any resprouts in the buffers.

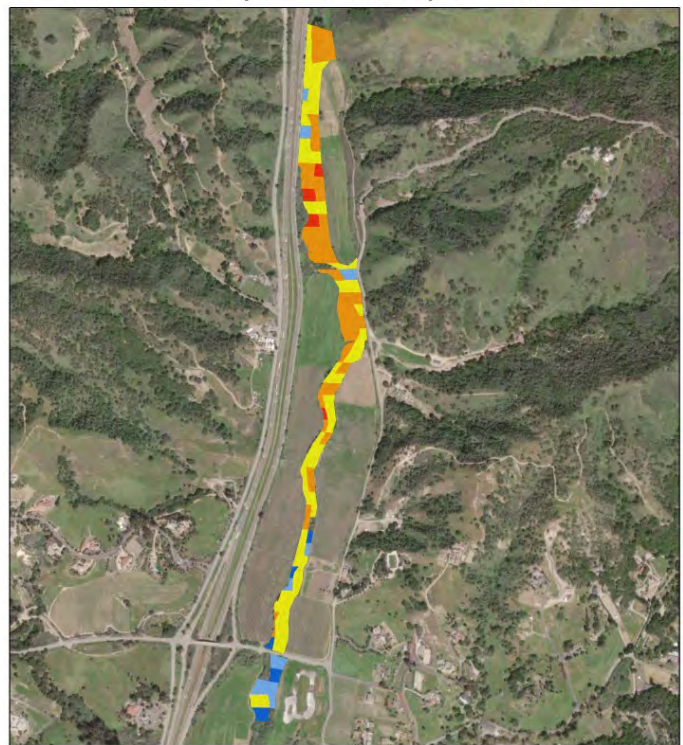
4. *Chemical Control* – Pesticides are used only when needed and are selected and applied in a way that minimizes their possible harm to people and the environment. The ideal timing for herbicide applications occur between April and October, when Cape ivy is actively growing and not flowering. This is when the plant is actively translocating energy (photosynthates) down towards the roots. A systemic herbicide applied during this time will have the best chance of killing the entire plant including the roots. Studies have shown excellent control of Cape ivy with the herbicides Roundup Custom® (active ingredient glyphosate), Vastlan® (active ingredient tryclopyr) and Milestone® (active ingredient aminopyralid). Herbicide applications utilize one or a combination of these different formulations. Milestone® has been the preferred option because it is not identified in the California red-legged frog injunction (<https://www.epa.gov/endangered-species/how-comply-requirements-protect-california-red-legged-frog-pesticides>)

Cape ivy percent cover throughout the project area was assessed prior to project implementation and annually, post management. Percent cover is evaluated using a grid system along both banks of San Luis Creek. Grid size on each side of the creek is approximately .15 acres each. The project will be considered successful when the overall cover of Cape ivy is trending downwards over several years to the point that visual impacts to the riparian habitat are negligible. The literature suggests that 20% cover of invasive plants is a good target for long-term management. Specific targets for containment areas are Cape ivy above ground biomass in the 5-25% cover class by year 5. Monitoring will occur in year 1 (Pre-Project), year 3 and year 5.



Map 1. Lower SLO Creek Floodplain Preserve site parcels

Lower San Luis Obispo Creek Floodplain Preserve



Cape Ivy Percent Cover September 2020
 0-1% Cover 1-5% Cover 5-25% Cover 25-50% Cover 50-75% Cover
 Map 2. Pre-Project % cover of Cape ivy (*Delawarea odorata*)

Funding for long-term habitat management of the LSLOCFP comes from property revenue from its leased organic farms, grant funding, community donations, and funds collected from wetland enforcement actions via the California State Water Resources Control Board. Although the project is still in the early stages, The Land Conservancy is already seeing great results.

For any questions about this project please contact Jon Hall at jonh@lcslo.org

Upcoming Events

Wednesday, April 6, 2:30-3:30

Weed Management Area Meeting

Via Zoom

*Please email for link, if needed.

Wednesday, April 13, 11-12

“Setting up EDRR Email Alerts in Calflora”

Register at: <https://us02web.zoom.us/meeting/register/tZAsf-muqzguGNRWocPdldARFJq-sxwF6cjQ>

Wednesday, April 20, 11-12

“Tracking Management in Calflora”

Register at: https://us02web.zoom.us/meeting/register/tZEIcOitrDosH9Di2IxmXv15_YjXdpmaRfb

Wednesday, May 18, 9-12

Santa Barbara County WMA is holding a virtual weed management workshop, DPR credits currently pending.

Information and Registration available on County of SB Calendar:

<https://www.countyofsb.org/agcomm/eventcalendar.sbc>

Thursday, May 19, TBD – Pending

Santa Barbara County WMA half day site visit to follow virtual workshop

Thank you SLO WMA members and readers

Reach out to us to be part of our next newsletter or to join our mailing list!

AgCommSLO@co.slo.ca.us

SLO WMA Co-Chairs

Jon Hall, Land Conservancy of SLO

jonh@lcslo.org

Rusty Hall, SLO CAC, Ag Inspector/Biologist

rhall@co.slo.ca.us

Andrew Johnson,

Upper Salinas – Las Tablas RCD

andrew@us-ltrcd.org

SLO CAC Main Office

2156 Sierra Way

San Luis Obispo, CA 93401

slocounty.ca.gov/agcomm

Contact Information

Phone: (805) 781-5910

Fax: (805) 781-1035

Email: AgCommSLO@co.slo.ca.us

