San Luis Obispo County
Weed Management Area

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

Upcoming Events

- **SLO WMA Meeting**
  In Person!
  January 26, 2023
  UCCE Auditorium
  2156 Sierra Way
  SLO, CA 93401

The California Invasive Plant Council (Cal-IPC) Symposium 2022

by James Moore & Jonathan Briggs

The California Invasive Plant Council, or Cal-IPC, works to protect California's land and water from invasive plants that threaten the state's ecology through science, education, and policy advocacy. In 2022, Cal-IPC hosted three symposiums; two mini-symposiums, each lasting one day, and one statewide symposium which has been held on a virtual platform since the beginning of the pandemic in 2020. The mini-symposiums were held in-person at two different locations: One in Concord in the East Bay Area, and one in Pomona. These symposiums provide opportunities for participants to connect with colleagues, sharing different information on management approaches, ongoing research and diverse control strategies. Participants also glean important information on most recent weed pressure from new or spreading species.

Cal-IPC hosted a statewide virtual symposium from November 1–3 covering a wide variety of topics. The symposium opened with a statewide Weed Management Area (WMA) meeting where information was provided by employees from the California Department of Food and Agriculture (CDFA) as well as Cal-IPC staff. Topics covered a wide range of information, including upcoming funding from the state as well as tracking techiniques through Cal Flora, a non-profit, online database providing information on wild plants in California, both native and invasive. While the entire three-day symposium does require a registration fee to attend, anyone from the general public may attend the WMA meetings free of charge. Stay tuned to your local WMA to hear about this upcoming opportunity in the fall!

Weed Alerts Cal-IPC 2022 (cal-ipc.org)

The annual Cal-IPC Symposium includes a "Weed Alerts" presentation that announces new weeds of note. Usually these weeds have recently been given a significant rating by CDFA, or a significant rating has recently been proposed (ratings must go through a proposal and approval system by CDFA). Below is a summary of November's Weed Alert list.

Tropical pokeweed, *Phytolacca icosandra*
- Native from Mexico to South America
- Recently rated "Q" by CDFA due to escape from cultivation

Mexican pokeweed, *Phytolacca heterotepala*
- Native to Northern and Central Mexico
- Rated "A" by CDFA due to escape from cultivation

Stinking roger, *Osteospermum calendulaceum*
- Sticky, aromatic, annual herb
- Native to Cape Region, South Africa
- Newly found in mainland U.S. in Spring of 2022 in Laguna Canyon, Orange Co.
- Currently undergoing EDRR control in Orange County
- Proposed "A" rating by CDFA to encourage early eratication

Newly "A" Rated Noxious Weeds
- Himalayan knotweed, *Koenigia polystachya*
- Austrian fieldcress, *Rorrippa austraciaca*
- Garlic mustard, *Alliaria petiolata*

Photo: Garlic mustard, 2022 Chris McDonald

Photo: Mexican Pokeweed, SLO CAC

Photo: Tropical Pokeweed, 2020 Ron Vanderhoff

Stay on alert for
- Himalayan Balsam, *Impatiens glandulifera*
- Sweet Amber, *Hypericum androsaemum*
- Yellow Floatingheart, *Nymphoides peltata*

Link to the complete presentation:
https://www.cal-ipc.org/wp-content/uploads/2022/11/Cal_IPC_Symposium_2022_Burger_Price_Weed_Alerts_inventory_updates.pdf

Weed Control Methods

By Kathryn Holt

photo: practicalfarmers.org

Protecting California's environment and range lands from invasive weeds impacts more than just California's environment. If left untreated, invasive species can threaten native ecology, farmland, and livestock on massive levels, impacting local economies and the broader environment. Five primary methods of weed control include preventative, cultural, mechanical, biological, and chemical weed control.

Preventative weed control focuses on eliminating invasive weeds in cultivated crops, pastures, or greenhouses. Examples include transporting hay that is weed free, using equipment that is sterilized before moving or using, and purchasing certified weed free seed.

Cultural weed control aims to reduce invasive weeds by maintaining field conditions through crop rotations, limiting over-grazing on pastures or rangelands, implementation of competitive forage species, and promotion of healthy soil fertility.

Mechanical weed control removes invasive species by using farm equipment or various hand tools to remove weeds through tillage and mowing. A more advanced method of invasive weed control is biological removal.

Biological weed control utilizes natural enemies of invasive plant species to manipulate the germination of weed seeds through established plants. Biocontrol agents include insect species, fungi, or grazing animals.

Lastly, **chemical weed control** refers to techniques that use herbicide applications to weeds or soil to affect the germination and/or growth of weed species.

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Photo: CAC, Kate Wolf

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According to California Invasive Plant Council's (Cal-IPC) website, early detection and rapid response (EDRR) is a management approach that helps reduce and eliminate invasive species when they are in the early stages of germination. The detection of an invasive plant species in its early infestation efforts aids landowners and officials in responding to the impacted area before the species has fully developed, grown into a large population, or spread to other locations. Cal-IPC has created "Invasive Species ID Cards for EDRR" that offer information and identification of weed species to assist in early detection. Find them at https://www.cal-ipc.org/solutions/management/edrr/species-id-cards/.

Invasive weeds can seem like an overwhelming problem to combat, especially across a county as large and multifaceted as San Luis Obispo, with equally large and diverse weed coverage. It is essential to employ a range of tactics to attack the problem. With help from land owners, nonprofits, and local officials, we can effectively deploy each of these methods to different degrees and in different situations, to reduce the expansion of invasive weed species while educating ourselves and our community.

Photo: SLO CAC

Sources & helpful links:

- https://forages.oregonstate.edu/nfgc/eo/onlineforagecurriculum/instructormaterials/availabletopics/weeds/control
- https://www.cal-ipc.org/solutions/management/edrr/species-id-cards/

Photo: SLO CAC

Weed of the Quarter

by James Moore & Vincent Peinado

Only one issue after debuting the "Weed of the Quarter" portion of this newsletter, we deviate from the initial projection. In October we stated that this section would focus on weeds new to the county, with limited distribution, or not known to occur in the county but with potential to become established if allowed to do so. This month, bucking all guidelines, we will highlight a very well-known and well-established plant: Yellow starthistle, *Centaurea solstitialis* (YST).

YST has been chosen primarily due to the high impact it has on a large portion of our county. Over the last decade or so, those of us with our eyes on the ground have watched as this weed has slowly infiltrated the coast and coastal valleys, becoming a weed that not only concerns the northern portion of the county. The County of San Luis Obispo Department of Agriculture receives many calls in June and July asking for guidance on how best to control this weed after it has flowered and produced seeds. Because of the high impact this weed has on the county overall, as well as toxicity to horses in particular, and because now is the time to begin annual control measures for this species, we chose to focus our attention on this weed.

YST is an herbaceous annual in the Asteraceae family. A native of Eurasia, this invasive was introduced to California in around 1850 via South America. Initially, it colonized disturbed areas such as roadsides and hay fields and is now common in other open areas such as pastures, waste areas, wildlands and burn cuts. Disturbances created by cultivation, poorly timed mowing, road building and maintenance, or overgrazing favor this invasive.

YST is a gray-green to blue-green plant with a deep taproot. Stems of the plants are fanned or winged, and flower heads have a bright yellow inflorescence surrounded by spines. The plant's taproot is the key to its vigor in many ways. A young plant with only about 2 vegetative leaves can have a taproot 6-8 inches long. By late spring that taproot can have grown to 3 feet long. With an increased ability to

Photo: YST leaves, stems, flower heads. 2014 Neal Kramer

reach soil moisture many plants can not make use of, YST can continue to grow and flower after mowing or other injury to the plant. Unsurprisingly then, these plants are considered mature and can flower at between 6 inches and 5 feet of height.

Rangeland and hay fields, private residences and yards, as well as public recreational areas such as parks are highly impacted by this weed. But there are control measures that can be utilized against it. Four (4) natural enemies of YST have been imported from Europe and are well established throughout California at this time. For areas that are cultivated, a single cultivation after the last rain and once soils have dried out effectively controls germination of seedlings and rosettes. Burning and grazing have also shown promising results. Many chemicals are available for many settings in the control of this weed. Clopyralid has both preemergent and postemergent activity on YST. For a complete control program for this weed species, contact your local pesticide dealer and speak with a licensed Pest Control Advisor.

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With 10-15 million acres of California infested with this weed, we are unlikely to ever come close to eradicating this species. However, with diligent timing and care, and with cross-jurisdictional coordination such as the Weed Management Area provides, there are steps we can take to limit the impact of this weed on areas of concern within our county. Please take a moment to read over the links for more information.

Photo: YST seedling, Bob Case

Photo: www.nwcb.wa.gov

- UC IPM: https://ipm.ucanr.edu/PMG/PESTNOTES/pn7402.html
- Cal IPC Plant Profile: https://www.cal-ipc.org/plants/profile/centaurea-solstitialis-profile/
- Weed Mapper YST Distribution: https://weedmap.cal-ipc.org/weedmapper/?species=14&regiontype=counties&regionid=79&base=topo&xyz=-120.40951%2C35.34758%2C9
- UC Davis Weed Reports: https://wric.ucdavis.edu/information/natural%20areas/wr_C/Centaurea_solstitialis.pdf

Photo: YST infested acreage, SLO CAC

SLO CAC Annual Survey, Treatment & Removal Work

Happy New Year! Instead of our typical quarterly update, this issue has an annual update. It's remarkable to see the true scope of the work we accomplish when we step back and look at the entire year's data. Following are some highlights from 2022:

Overall

- Net acres of all herbicide applications: 190
- Gross acres of all herbicide applications: 926
- Gross acres surveyed for weeds: 3,666

Yellow starthistle

- Miles of yellow starthistle surveyed on roadsides: 188
- Miles of yellow starthistle treated on roadsides: 333
- Acres of yellow starthistle treated (roadside and others): 180
- Gross acres of yellow starthistle treated: 700

Miscellaneous

- Net acres of artichoke thistle treated: 7
- Gross acres of artichoke thistle treated: 118
- Net acres of Dittrichia treated: .25
- Gross acres of Dittrichia treated: 9
- Number of individual jubatagrass treatments: 17 (chemical) and 3 (manual)
- Miles surveyed for tree-of-heaven: 28

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Thank you SLO WMA members and readers!

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

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