

Mendocino County Agricultural Newsletter

Fall 2013



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Welcome to the second annual Mendocino County Department of Agriculture Newsletter! It is our goal to keep growers informed of changes in the law as well as assist in meeting the regulatory requirements. In this newsletter, we will cover topics of interest to the agricultural community and summarize our 2013 program activities to date.

In this issue, we will discuss new and proposed regulations, a summary of weed management activities, the pesticide use, pest exclusion and high risk programs. An update on European Grape Vine Moth, Virginia Creeper Leaf Hopper and other important pest and programmatic information is also included.

Continuing Education

Mendocino County Grower Courses

December 5, 2013

10:00 AM-12:00 PM

Pear Grower Class 12:00-2:00PM

December 10, 2013

2:00-4:00 PM

December 17, 2013

5:00-7:00 PM

Please RVSP (707) 463-4208

Mendocino & Lake County IPM Seminar

Friday Nov 15th 8:00 AM–5:00 PM

<http://cemendocino.ucanr.edu/?calitem=217780&g=51>

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Private Applicator Certification (Tan Card)

<u>Last Name</u>	<u>Expiration</u>
A-H	2015
I-Q	2013
R-Z	2014

**Please note that our office will be closed
Dec. 23-27 and New Years Day.**

AGRICULTURAL COMMISSIONER UPDATE

Submitted by Chuck Morse, Agricultural Commissioner

I am pleased to present the second annual Mendocino County Department of Agriculture "Ag. Newsletter." Our goal is to inform the Agricultural community on new and upcoming regulations, exotic pests, and some of the activities and developments of our Department throughout 2013.

As 2013 comes to a close, the agricultural community has many things to be thankful for, as well as continued challenges to address, in the coming year. Once again, we did not trap any European Grapevine Moth (EGVM) this year, marking the third year in a row with negative trapping results. We are very grateful for the cooperation and "buy-in" of vineyard owners and operators throughout the county that facilitate our trappers performing the detection trapping for EGVM. Our dedicated trappers working in the EGVM, Pest Detection, and Glassy-Winged Sharpshooter programs perform the critical role of monitoring for the introduction of destructive agricultural insect pests.

The extremely dry start to 2013 impacted agriculture in many ways and the delayed start of the rainy season for 2014 is prolonging our exceptionally dry conditions. I would like to thank the livestock and hay producers that responded to my drought survey, which enabled me to do the necessary calculations and submit our disaster request to the Secretary of the USDA by early June. We were subsequently granted a drought disaster declaration as a result of everyone's efforts.

The 2013 growing season and harvests were generally very good, with cooperating weather and high quality fruit. The 2012 Crop Report was presented to the Board of Supervisors in mid-September and can be viewed at <http://www.co.mendocino.ca.us/agriculture> under the "Crop Statistics" tab on the left-hand side of the page.

The Cal Ag Permits program continues to evolve and get better. The vendor that developed the program installed fixes and enhancements throughout 2013 as issues were identified. Our office will assist growers with entering Pesticide Use Reports electronically, so please call us if you experience any problems.

The Irrigated Agricultural Lands Discharge program is continuing to be developed by the North Coast Regional Water Quality Control Board. I continue to work with the Farm Bureau and other local stakeholders, engaging the Water Board to try to get a reasonable program developed that will be workable for our Mendocino producers.

The Department selected Diane Curry to fill the Assistant Commissioner/ Sealer position in January. Diane's experiences and accomplishments as a Senior Biologist make her uniquely suited for the position and she continues to excel and to do a fantastic job for the Department. I look forward to seeing you at our grower continuing education courses and I hope you find this newsletter informative.

Sincerely,

Chuck Morse

EUROPEAN GRAPEVINE MOTH UPDATE, FALL 2013

Submitted by Aaron Hult, Agricultural Measurement Standards Specialist

Another season of trapping for the European Grapevine Moth (EGVM) has come to an end without any detections in Mendocino County in 2013. Traps were first deployed into commercial grapes starting March 1st at a density of 25 traps per square mile. A total of 1,401 traps were deployed for the first generational flight. Starting June 15th the trap density was reduced to 9 traps per square mile, per state protocols, leaving a total of 516 traps until they were all removed starting October 1st. The Ag Department also deployed EGVM traps adjacent to wineries that have received fruit from quarantine areas since 2010. All traps were serviced every two weeks during the trapping season. While Sonoma County had another year without a single detection, Napa County continues to find EGVM through diligent trapping efforts. However, the increased eradication efforts of Napa County have greatly reduced the number of detections and the size of the quarantine area.



EGVM adult (Photo: J. Clark)



EGVM trap (Photo: P. Chinn)



EGVM larva damage to grape (Photo: J. Clark)

VIRGINIA CREEPER LEAFHOPPER UPDATE, FALL 2013

Submitted by Glenn McGourty, Farm Advisor, UCCE Mendocino and Lake Counties

Virginia Creeper Leafhopper (VCLH) *Erythroneura ziczac* has continued to spread in the Hopland area of Mendocino County (as well as Lake County and Napa County). It doesn't appear to be moving at a very fast rate, but it is being detected mostly in vineyards along the Russian River. In general, this was a year that favored leafhopper infestations due to a warm April and adequate soil moisture that promoted lush vineyard growth early in the season. Some growers had to treat vineyards infested with the Western Grape Leaf Hopper *Erythroneura elegantula* due to high numbers that were damaging foliage (this is the already established leafhopper that most growers are familiar with).

UCCE Area IPM Advisor Dr. Lucia Varela conducted several trials this year in the Hopland area with Fetzer Vineyards to test the efficacy of organic pesticides since we have so many acres of organically certified vineyards. She has been following the development of the insect throughout the growing season to have a better idea of its behavior in terms of reproduction, feeding and movement in the landscape. She conducted three different trials in blocks of Chardonnay and Grenache (she will report her information at the Mendocino-Lake IPM Seminar in Hopland on November 15th.) Of the materials that she evaluated, Pyganic (pyrethrin) appears to be the most effective overall, although Debug Turbo (azadirachtin and margosa oil from the neem tree) appears to control the youngest VCLH nymphs. To control VCLH, multiple applications of insecticides approved for organically certified vineyards are required, and can be quite expensive. In contrast,

conventional insecticides including those containing imidacloprid easily control this insect, often with one well timed application. Several organic growers in our region reduced their certified acreage this year due to VCLH problems, deciding to treat some of their acreage with conventional insecticides that was not specifically destined for wineries requiring organically certified fruit.



VCLH Nymph (Photo: Mike Poe)

In another study, Dr. Varela surveyed the Mediterranean Winegrape Variety Trial that I have established at the UC Hopland Research and Extension Center which has significant populations of VCLH. It was dramatically obvious that VCLH feeds heavily on Chardonnay (planted on the end posts of the trial), while vines of some cultivars growing immediately adjacent were barely being fed upon. It appears that varieties whose underside of the leaf are fairly smooth are preferred hosts, while those with "fuzz" (tomentum) are much less favorable for laying eggs. Grenache is another variety with a very smooth surface on the back of the leaf, and is very attractive to VCLH for feeding and reproduction. Smooth surfaces on the underside of the leaves may be the preferred habitat since VCLH lays its eggs just under the leaf surface usually in multiples adjacent to each other.



Finally, Dr. Kent Daane and his graduate student Houston Wilson are looking for a biological control agent specific for VCLH. Funded by a grant from the American Vineyard Foundation (underwritten by Fetzer Vineyards), they have found a population of VCLH in the Davis area that is being parasitized by

an *Anagrus* sp. wasp. Further surveying of the population, collection and identification of the parasitoid is being done with the hope of ultimately building up numbers to be released in Mendocino County if the insect is effective at suppressing VCLH populations locally.

PESTICIDE USE PROGRAM UPDATE

Submitted by Tashina Sanders, Agricultural Measurement Standards Specialist

In 2012, the Mendocino County Ag Department began issuing permits through Cal Ag Permits. This new system has been implemented statewide and allows for pesticide use reports to be submitted electronically. We encourage growers to try this new feature and appreciate your patience as the program continues to improve. Due to this change in permit issuance, our office is requiring Restricted Materials permits and Operator ID numbers to be issued by appointment only. This will allow our biologists time to prepare the permit, associated maps and review the file prior to issuance. Please call ahead to schedule an appointment. We will begin issuing permits the second week of December.

Throughout the month of December, grower courses will take place at the Ag Commissioner's office. Please call and reserve your spot for these sessions in advance. Space is limited and we need to prepare certificates of attendance in advance for proof of continuing education. As a reminder, six hours of continuing education every three years is required for a private applicator card renewal (two of the six hours must be in laws and regulation). Please retain all certificates of attendance to renew your cards.



SO₂ USE IN WINERIES

Sulfur dioxide (SO₂) is used in wineries for both pesticidal and non-pesticidal uses.

The SO₂ used as a sanitizer and mold control agent in wine containers (barrels, tanks, and corks) is a pesticide. The sulfur dioxide approved for sanitizing barrels is federally restricted which requires a certified applicator to supervise applications. Any winery that applies SO₂ to sanitize barrels and corks used in wine production must have an employee with a qualified applicator certificate (QAC) with Category "P" (Microbial Pest Control), or hire a licensed pest control business. In addition to the certified applicator requirement, wineries must obtain an operator identification number and submit monthly pesticide use reports to the County Agricultural Commissioner (CAC).

There are several label requirements to review to avoid potentially dangerous working conditions while applying SO₂. Winery operators must comply with the pesticide label requirements, including protective eyewear, clothing and respiratory protection, posting of fumigation sites, re-entry after fumigation, storage and disposal. Currently, the only registered product is The Fruit Doctor, which has respiratory requirements listed on the label under sections for "Precautionary Statements" as well as "Personal Protective Equipment". A supplied-air respirator with National Institute for Occupational Safety and Health (NIOSH) approval

number prefix TC-19C, OR, a self-contained breathing apparatus (SCBA) with NIOSH approval number TC-13F **when conducting fumigations indoors.** When fumigation occurs indoors, no other persons are allowed in the area unless they wear the same respiratory protection required for handlers or the area is continuously monitored to ensure levels do not exceed 2 parts per million (ppm). There are also specific requirements for posting the fumigation areas if conducted indoors. Postings shall be removed when levels of SO₂ are determined to be below 2 ppm.



In conclusion, any operation that conducts SO₂ fumigations indoors need to have testing equipment to either monitor the area and/or verify a structure is safe to re-enter. There is no exception on the label for passive aeration or other restricted entry interval. The only way postings can be removed and others allowed to transit the area is to test the ambient air with findings below 2 ppm.



APPLICATION SPECIFIC INFORMATION

Application specific information is required to be displayed in a central location so fieldworkers and others have access to this information. Code section CCR 6761.1, "Application-Specific Information for Fieldworkers," requires the operator of the property to display information for fieldworkers employed to work in treated fields on the operator's property. A "treated field" is a field that has been treated with a pesticide or had a restricted entry interval in effect within the last 30 days.

The information **must** contain:

- Identification of the treated field;
- Time and date of the application;
- Restricted entry interval;
- Product name(s), U.S. EPA registration number(s), and active ingredient(s); and
- Spray adjuvant product name(s) and California registration number(s) if applicable.

The information must be displayed when the operator of the property receives

notice of the completion of an application and **before** any fieldworkers are allowed to enter the treated field. The information must include all applications that have been made to any field on the operator's property. The information must remain displayed until the area no longer meets the definition of a treated field or fieldworkers will no longer be on the operator's property, whichever occurs earlier.

If a Farm Labor Contractor (FLC) is employed, the operator of the property shall inform the FLC of the location of the application specific information. This will be noted on the Hazard Communication Information for Employees Working in Fields (Pesticide Safety Information Series leaflet A-9). The description of the location must be specific enough for fieldworkers to find and have unimpeded access to the displayed application-specific information. Please contact a biologist in our office if you have any questions.



DPR DESIGNATING SECOND GENERATION ANTICOAGULANT RODENTICIDES AS RESTRICTED MATERIALS

The California Department of Pesticide Regulation (DPR) has recently proposed regulations to designate all second generation anticoagulant rodenticides (SGARs) as restricted materials. This proposed action to classify all SGARs as California restricted materials would add additional use restrictions and revise the definition of private applicator to refer to the federal definition of agricultural commodity found in Title 40, Code of Federal Regulations section 171.2(5).

Anticoagulant rodenticides work by inhibiting a rodent's ability to produce several key blood clotting factors, thus causing the poisoned rodent to die from internal bleeding. Anticoagulant rodenticide baits may take several days following ingestion of a lethal dose to kill the rodent. SGARs were developed in response to resistance issues reported with First Generation Anticoagulant rodenticides (FGARs). In general, SGARs are more toxic than FGARs

because they are designed to be lethal after a single feeding instead of after multiple doses. Because it can take several days for a rodent to succumb to internal bleeding, several feedings may have occurred prior to death. As a result, rodent carcasses may contain residues of SGARs many times over the lethal dose. This action has caused numerous negative impacts to non-target wildlife and predators (subsequently triggering the need for regulation). The use requirements are applicable to all SGARs; Brodifacoum, Bromadiolone, Difenacoum, and Difethialone and will essentially prohibit all above ground placements of bait more than 50 feet from structures unless a severe rodent problem is present. The public comment period on the proposed regulations closed on October 4, 2013.



Pacific Fisher (photo:kswild.net)



Owl with prey (Photo: D. Hemmings)



CCR 6970): SURFACE WATER PROTECTION IN OUTDOOR NONAGRICULTURAL SETTINGS

As of June 2012, the California Department of Pesticide Regulation (DPR) adopted regulations for the protection of surface water in non-agricultural settings. This regulation, California Code of Regulations (CCR) 6970, applies to those engaged in pest control for hire and includes structural pest control operators, landscape maintenance gardeners, and other pest control operators when certain pesticides are applied outdoors to structural, residential, industrial and institutional sites. This regulation

specifies certain application methods, restrictions and prohibitions for applications that occur near aquatic habitats, in or near standing water and when water drains near sewers. Applications are prohibited during precipitation except when made to the underside of eaves and are further not permitted in close proximity to French drains, sewers, gutters etc. Refer to CCR 6970 for the text of regulations as well as a list of restricted active ingredients.

ENFORCEMENT RESPONSE REGULATION

The Enforcement Response Regulation CCR 6128 was adopted in 2006 and amended in 2011. The intent of this regulation is to improve environmental enforcement and reinforce statewide consistency in enforcement actions of pesticide laws and regulations. This regulation creates a system for classifying violations related to pesticide use and directs County Agricultural Commissioners to take enforcement actions under certain circumstances. Violations are classified in categories “A, B and C”. These classes are based upon factors such as potential harm to public health, worker safety, and the environment. Class A violations are defined as “a violation that caused an actual health, property, or environmental hazard.” Class B violations are defined as “a violation of regulations that mitigate the risk of adverse health, property, and environmental effects.” A class C violation is “a violation of a law or regulation that does not mitigate the

risk of an adverse health, property, or environmental effect.”

A property operator's compliance history is looked at for a period of two years to determine if a compliance or enforcement action can be taken. If a property operator has any A or B class violations in the last two years, the CAC will be forced to propose an enforcement action usually in the form of a civil penalty. If the operator does not have a violation in the past two years the CAC can decide to take a compliance action and not propose a fine. In this case, a decision report is written and submitted to DPR explaining the incident and reasons for not pursuing an enforcement action. Under certain circumstances, the director of DPR may reject the decision report and force the CAC to levy a fine. This is one of the many reasons why we encourage growers to request a compliance inspection with us. It is an excellent opportunity to be proactive in



addressing potential problems or deficiencies in your safety programs. There are inspection synopsis sheets available on our website that detail the inspection points and requirements. If

you would like more information regarding enforcement response regulations please contact a biologist for further details.

PEST EXCLUSION NEWS

Submitted by Tashina Sanders, Agricultural Measurement Standards Specialist

The Mendocino County Agriculture Department has made several notable pest interceptions during 2013. Below is a list of our A and Q pest detections so far. Our office routinely inspects parcels at Fed Ex and UPS as well as incoming shipments via trucks going to nurseries and individuals; this is known as interior pest exclusion. The California Department of Food and Agriculture (CDFA) are responsible for exterior pest exclusion which occurs at border stations through inspection of private and commercial vehicles entering California. If you receive shipments of plant material from southern California with a blue tag or shipments from out of state please call our office for an inspection. We usually receive notice of shipments from the border stations but there are times we do not. It is crucial to inspect these shipments as soon as possible before plants are moved, boxes are opened or insects are given a chance to escape. Exclusion of exotic pests is vital to the protection of our environment and agricultural production. Your cooperation is greatly appreciated!



Pest	Rating	Location
Boxwood Scale (<i>Pinnaspis buxi</i>)	A	Fed Ex
Lesser Snow Scale (<i>Pinnaspis strachani</i>)	A	Fed Ex
Pacific Mealybug (<i>Planococcus minor</i>) Intercepted 2 times	Q	Fed Ex
<i>Diaspididae</i> Scale Intercepted 2 times	Q	Fed Ex
Ant (<i>Wasmannia auropunctata</i>)	Q	Fed Ex
Sudden Oak Death (<i>Phytophthora ramorum</i>)	Q	Greenwood Rd. (Philo)
Mediterranean dandelion flower thrips (<i>Tenothrips frici</i>)	Q	UPS
Slug (<i>Philomycidae</i>)	Q	Fed Ex
Mealybug- (<i>Pseudococcidae</i>)	Q	Fed Ex
Aphids- (<i>Aphidaceae</i>)	Q	Fed Ex



BROWN MARMORATED STINK BUG

Submitted by Dario Gotchet, Agricultural Measurement Standards Specialist

Although not yet having been detected in Mendocino County, a new pest may be heading our way in the near future. Originally a native to East Asia, the Brown Marmorated Stink Bug (BMSB), *Halyomorpha halys*, was first identified in the US in Pennsylvania in 2001. Since this time, BMSB has quickly become a nuisance pest for farmers and backyard gardeners across the country. The ability of BMSB to hitchhike on vehicles and aircraft has been one of the key factors to the rapid spread and distribution. Capable of causing significant damage to crops, BMSB feeds on several important agricultural crops including pears and grapes.

Currently, there is at least one well-established population of BMSB that has been identified in mid-town Sacramento. It is a CDFA Class B pest, and is commonly described as being a strong flyer (up to ½ mile/day). Although BMSB has not yet been detected in Mendocino County, this pest certainly has the potential to be devastating to many varieties of crops.

If you find something that you suspect might be a BMSB, place it in a container and document where and when you collected it. Take the sealed container to the County Agricultural Commissioner's office or UC Cooperative Extension office.



BMSB population on tree limb in mid-town Sacramento (close up on right).
(Photos: UC Extension)



POLYPHAGOUS SHOT HOLE BORER

Submitted by Dario Gotchet & Tashina Sanders

A new pest in Southern California has recently been found to have a symbiotic relationship with a new, yet unnamed filamentous fungi. Both the fungus (*Fusarium sp.*) and the beetle were found on several avocado trees in residential areas of Los Angeles and Orange Counties in 2012. The Polyphagous shot hole borer (PSHB), *Euwallacea sp.*, is an exotic ambrosia beetle that serves as a vector by inoculating a host tree with the new *Fusarium* species. Once inoculated, the fungus attacks the vascular tissue of the tree which disrupts the transport of water and nutrients from the roots to the rest of the tree. This infestation commonly results in discoloration of the leaves, defoliation, and branch dieback. The *Fusarium sp.* fungus causes darkened stained bark or white powdery exudates can be present around beetle exit holes.



Characteristic powdery white exit holes of PSHB (Photo: G. Arkelian)

The PSHB seems to have originated in South East Asia or Africa. The beetle was first discovered in 2003 in Los Angeles County. From 2003 to 2010, the beetle was occasionally found on



Adult PSHB (Photo: G. Arkelian)

ornamental trees and in California Department of Food and Agriculture (CDFA) insect detection traps. There was no cause for serious alarm until 2010 when a large number of box elder trees died (presumably from PSHB). It wasn't until 2012 that the insect/pathogen complex gathered attention.

Although this new insect/pathogen complex was originally discovered in avocado trees, there are at least 200 species (both natives and exotics) that have been identified as hosts. This list includes but is not limited to: box elder, big leaf maple, California coast live oak, English oak, California sycamore, and other species.

If you find something that you suspect might be a PSHB, place it in a container and document where and when you collected it. Take the sealed container to the County Agricultural Commissioner's office or UC Cooperative Extension office.



GOLDSPOTTED OAK BORER

Submitted by Dario Gotchet, Agricultural Measurement Standards Specialist



Adult GSOB (Photo: T. Coleman)

In addition to oak trees in Northern California being threatened by diseases like Sudden Oak Death (SOD), many oaks are also vulnerable to decline and damage as a result of insect infestation. Insects such as the California tent caterpillar (*Malacosoma spp.*) and the California oakworm (*Phryganidia californica*) have become common causes of oak damage in California in recent years. These caterpillars and oakworms feed on the leaves of oaks, resulting in varying degrees of defoliation. And, although these insects may return year after year, these affected oaks generally make a full recovery. However, unlike the aforementioned pests, the Goldspotted Oak Borer (GSOB), (*Agrilus auroguttatus*) is an insect that has the potential to cause extensive injury and mortality in oaks.

Although GSOB most commonly attacks larger diameter/mature oaks (>18 DBH), it occasionally goes after smaller diameter trees. It only attacks oak trees, and prefers the red oak group (i.e., coast live oak, *Quercus agrifolia*, and California black oak, *Quercus kelloggii*). Common damage associated with

GSOB infestation includes bark staining on the main stem, crown thinning and branch dieback, bark injury from woodpecker foraging, and D-shaped emergence holes. The most significant damage leading to the decline and mortality of the tree comes from GSOB larval feeding, which subsequently girdles the tree by disrupting the water and nutrient uptake.

A native to Southern Arizona and Northern Mexico, GSOB is currently found only in two counties in California (San Diego and Riverside). It is believed that GSOB was likely introduced to Southern California through human movement. More specifically, the collection and transportation of oak firewood is considered to be the most significant factor in the spread of GSOB. Because the spread of this pest has been so successful with human movement, it is believed that GSOB will likely spread to other areas in the state.

If you find something that you suspect might be a GSOB, place it in a container and document where and when you collected it. Take the sealed container to the County Agricultural Commissioner's office or UC Cooperative Extension office.



Size comparison (Photo: T. Coleman)



CEREAL LEAF BEETLE

Submitted by Dario Gotchet, Agricultural Measurement Standards Specialist



Adult CLB (Photo: T. Silberstein)

Wheat and grass farmers in the Klamath Basin are now facing a new pest in the region. The cereal leaf beetle (CLB), *Oulema melanopus*, was recently discovered at the Klamath Basin Research and Extension Center in Tulelake by Rich Roseberg and Tom Silberstein of Oregon State University. Following their discovery of a CLB feeding on a wheat plant, additional larvae and adults were subsequently identified at the Tulelake field site and one other nearby location. Cereal leaf beetle damage commonly appears as striped areas on leaves, with severe infestations having the potential to significantly impact grain crops (severely infested fields may have a “frosted” appearance). Older larvae are found to do the greatest amount of damage, stripping off green tissue between leaf veins and skeletonizing leaves.

Native to Europe and Asia, the CLB was first detected in the U.S. in Michigan (1962). Since then the beetle has slowly made its way over to the west coast, with the first positive identification occurring in Oregon (1999). Currently, the only known counties in California where CLB has been identified are

Siskiyou and Modoc. Adult cereal leaf beetles are about 5 mm long (3/16 inch), have metallic bluish-black heads, and orange/reddish brown thorax and legs. Eggs are yellow in color, about 1 mm long (< 1/16 inch), and typically laid singly or in pairs on the upper surface of grass leaves. Larvae are yellowish-orange, but this color is usually obscured by a layer of feces and mucus, giving them a shiny appearance.

Because the detection of CLB in California is so recent, the California Department of Food and Agriculture has not yet established any special restrictions or quarantines at this time. Future exclusion actions may include quarantine enforcement by county lines or by geographic lines (e.g., Klamath Basin).



Characteristic striping of leaves (Photo: T. Silberstein)

If you find something that you suspect might be a CLB, place it in a container and document where and when you collected it. Take the sealed container to the County Agricultural Commissioner's office or UC Cooperative Extension office.



WEED MANAGEMENT UPDATE, FALL 2013

Submitted by Tashina Sanders, Agricultural Measurement Standards Specialist

The Mendocino County Ag Commissioner's office regularly surveys the county for invasive weed infestations. The table below lists the A, B and Q rated weeds found in Mendocino County and their approximate location. An "A" rated pest is "an organism of known economic importance subject to state enforced action involving: eradication, quarantine regulation, containment, rejection, or other holding action." A "B" rated pest is "an organism of known economic importance subject to: eradication, containment, control or other holding action at the discretion of the individual county agricultural commissioner."

A "Q" rated pest is "an organism or disorder requiring a temporary "A" action pending determination of a permanent rating. The organism is

suspected to be of economic importance but its status is uncertain because of incomplete identification or inadequate information."

We monitor and manage known infestations of these weeds in addition to stinkwort and other common weeds of limited distribution in the area. Please bring any suspect weeds into our office for identification.

Plant Pest	Rating	Location
Rush Skeleton Weed (<i>Chondrilla juncea</i>)	A	Potter Valley
Spotted Knapweed (<i>Centaurea maculosa</i>)	A	Branscomb
Goats Rue (<i>Galega officinalis</i>)	Q	Talmage
Gorse (<i>Ulex europaeus</i>)	B	Caspar
Dyers Wood (<i>Isatis tinctoria</i>)	B	Ukiah, Potter Valley
Woolly Distaff Thistle (<i>Carthamus lanatus</i>)	B	Hopland, Yorkville, Laytonville, Willits
Purple Loose Strife (<i>Lythrum salicaria</i>)	B	Redwood Valley

GOAT'S RUE

Submitted by Tashina Sanders, Agricultural Measurement Standards Specialist

In July 2013, *Gallega officinalis* (also known as Goat's rue and Professors weed) was discovered in the Mill Creek, Talmage area. This is the first known detection for this noxious weed in California. Currently, the majority of the infestation discovered is located in Lake County. This plant is a member of the pea family and is a nitrogen fixer. It is a known toxic plant that has documented medicinal properties as well. The infestation is large and densely populating Eight Mile Valley for several miles towards the headwaters of Scott Creek. The plant is 3-4 feet tall, and is primarily taking root in riparian areas (can also found along Mill Creek road near Talmage). Be on the lookout for

this new invasive weed and please bring any suspect samples to our office for identification.



Gallega officinalis
(Photos: commons.wikimedia.org)



STINKWORT

Submitted by Ray Harrie, Agricultural Measurement Standards Specialist

Stinkwort, or *Dittichia graveolens*, is relatively new to our county. It is well established in Sonoma County and throughout the Central Valley. It is a tarweed distinctive in its sticky continence and camphor or turpentine like odor. It closely resembles tumbleweed, but with a distinctly more upright posture. It somewhat resembles a small Christmas tree reaching heights of up to four feet.



Dittichia graveolens
(Photo: J. Martin)

Stinkwort germinates in late spring and continues to germinate through the third week in August when it first begins to flower. The small sunflower like yellow flowers each produce several plumed seeds about a week later. The plumes cause them to blow up to several yards distance, but it is the stickiness of the seeds that allows it to stick to tires of vehicles as they roll over the mature plants. In this way they spread from one dirt lot or road shoulder to another sometimes many miles away. A one inch plant will produce a single flower, but a large plant will produce upwards of 30,000 seeds. Fortunately, stinkwort is an annual that must come back from seed each year.

The problem with this weed is that it can over-run pasture ecosystems much as starthistle does. It forms solid stands of late season green that, though poisonous to livestock, is still somewhat tempting to cattle and sheep used to eating dry grass. Also, it thrives in drip-lines and vine-rows where its distinct odor and strong foul taste may degrade the quality of the grape juice. Again the stickiness of the seeds makes it very easy for the population to spread throughout the vine-rows.

Method of control is straight forward. Pull or spray (2% Roundup) the plants before the third week in August. Be especially careful to remove any survivors in the vine-rows prior to harvest.

The Mendocino County Department of Agriculture has been managing this weed since it first was noticed here four years ago. It has been found all along Highway 101 and along Highway 128 south of Booneville. It appears as though the plant is attempting to spread north from Sonoma County. Lake County has also decided to attack the patches of stinkwort found within their borders. Results so far have been encouraging. The seed bank does not seem to last long and some of the treated populations have died out. Especially watch for stinkwort in yards where trucks from out of county may have delivered grapes or equipment. If first year plants are removed before seeding, they should not come back the next year.



INVASIVE WEED BIOLOGICAL CONTROL AGENTS RELEASED

Submitted by Chuck Morse, Ag Commissioner

In October of this year, Ag Department Biologists spent two days with Humboldt and Del Norte County Ag Departments harvesting the tansy ragwort flea beetle. The adults are small (0.08 to 0.16 in) long, have a light golden color, and enlarged hind legs for hopping. We were able to collect a total of seven starter populations of 400 to 500 (adult) insects each. Release of these starter populations occurred in the areas of Casper, Westport, Orr Springs Road, and North Ukiah. Our Ag Biologists noted evidence of existing populations at some sites, indicating that releases from prior years have established successfully.



Longitarsus jacobaeae (Photo: BLM/ISDA Bio Control Program)

Officially known as *Longitarsus jacobaeae*, this insect attacks the invasive weed Tansy ragwort (*Senecio jacobaeae*) by mining the roots of the rosettes which may cause plant mortality in the spring when infested plants begin to bolt. The adults feed on the leaves and cause a typical shot-holed appearance. Heavy adult feeding on rosettes during the late fall and winter can lead to plant mortality. This flea beetle is a highly successful biological control agent that is able to maintain colonies at low host densities. We are hopeful that local populations of this insect will build to the point where we can harvest and re-distribute excess beetles from in-county locations in the future.



Tansy Ragwort
Senecio jacobaeae (Photo: ODA)

Miscellaneous Information

The local Natural Resource Conservation Services (NRCS) office is accepting applications from agricultural producers for the Environmental Quality Incentives Program (EQIP). This program provides farmers with financial and technical assistance to address natural resource conservation and improvement projects on their land. In many cases, the cost share element of this program is 50% or more of the project costs. The deadline to sign up is November 15th. Go to the following link for more information <http://www.nrcs.usda.gov/wps/portal/nrcs/site/ca/home/>.



HELPFUL LINKS

Mendocino Agriculture Department site
<http://www.co.mendocino.ca.us/agriculture/>

Compliance Assistance
<http://www.cdpr.ca.gov/docs/dept/quicklinks/compliance.htm>

Pesticide Use Reports online
<http://www.countyofnapa.org/AgCommissioner/CAP/>

Food and Ag Code
<http://www.leginfo.ca.gov/cgi-bin/calawquery?codesection=fac>

Pesticide Labels
<http://www.agrian.com/labelcenter/results.cfm>

Pesticide Regulations
http://www.cdpr.ca.gov/docs/legbills/calcode/chapter_.htm

Integrated Pest Management
<http://www.ipm.ucdavis.edu/>

AG DEPARTMENT STAFF

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- Univeristy of Agriculture and Natural Resources, UC IPM Online. Statewide Intergrated Pest Management Program. Online resource. <http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn74163.html>
- University of California, Agriculture and Natural Resources. Statewide IPM Program. *Brown Marmorated Stink Bug*. Document on website. Accessed 10/21/13. www.ipm.ucdavis.edu
- USDA-NIFA SCRI Coordinated Agricultural Project, Northeastern IPM Center. Website. Accessed 9/23/2013. <http://www.stopbmsb.org/stink-bug-basics/origins-of-bmsb>

