



# California Weeds and Weed Free Forage

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# Weed Free Forage

The California Department of Food and Agriculture's (CDFFA) has a voluntary protocol for a county to certify weed-free forage including hay, straw, or mulch and straw wattles.

“Voluntary” - A county may choose not to certify weed free forage, but if it issues such certifications, then they must follow the state protocols for WFF inspections.



# Authority for WFF

FAC 403. The department shall prevent the introduction and spread of injurious insect or animal pests, plant diseases, & noxious weeds.

FAC 5101. Each commissioner is an enforcing officer of all laws & regulations which relate to the prevention of the introduction into, or the spread within, the state of pests. S/he is, as to such activities, under the supervision of the Secretary.

FAC 5205. A commissioner shall make such inspections as may be necessary to determine the facts which are required by the state or country of intended destination & shall issue a certificate that states the facts which are determined upon receipt of the scheduled fee for a certificate or, if no scheduled fee has been established, upon request of the shipper.



# Forage does not have to lack ALL weeds

Forage certified under this protocol will be inspected for actionable plant pests listed in the following:

- Federal noxious weeds list
- State noxious weed list, California Code of Regulations (CCR) section 4500
- A or Q rated plants not designated as a noxious weed in CCR Section 4500



# Federal Noxious Weeds that could end up in forage

*Cuscuta* spp.\*

*Orobanche* spp.\*

*Ageratina adenophora*

*Ageratina riparia*

*Arctotheca calendula*\*

*Asphodelus fistulosus*\*

*Carthamus oxyacantha*

*Crupina vulgaris*\*

*Digitaria scalarum*

*Digitaria velutina*

*Emex australis*

*Emex spinosa*

*Euphorbia terracina*\*

*Galega officinalis*\*

*Heracleum mantegazzianum*

*Imperata cylindrica*\*

*Leptochloa chinensis*\*

*Onopordum illyricum*\*

*Paspalum scrobiculatum*

*Pennisetum clandestinum*\*

*Rubus fruticosus*

*Salsola vermiculata*\*

*Setaria subtessellata*

*Urochloa panicoides*

\* Rated in CA



# Noxious Weed

FAC 5004: Any species of plant that is, or is liable to be, troublesome, aggressive, intrusive, detrimental, or destructive to agriculture, silviculture, or important native species, and difficult to control or eradicate, which the director, by regulation, designates to be a noxious weed. In determining whether or not a species shall be designated a noxious weed for the purposes of protecting silviculture or important native plant species, the director shall not make that designation if the designation will be detrimental to agriculture.



## Section 4500. Noxious Weed Species

It has been determined that the following species of plants are noxious weeds within the meaning of Section 5004 of the Food and Agricultural Code:

*Acacia paradoxa* (Kangaroo thorn)

*Acaena anserinifolia* (bidly bidly)

*Achnatherum brachychaetum* (punagrass)

*Acroptilon repens* (Russian knapweed)

*Aegilops triuncialis* (barb goatgrass)

*Aeschynomene rudis* (rough jointvetch)

*Alhagi maurorum* (camelthorn)

*Ailanthus altissima* (tree of heaven)

etc...



# Format of CDFA Pest Risk Assessment

Initiating Event

History

Rating Criteria:

- Adaptability to CA climate
- Host range
- Pest dispersal potential
- Economic Impact
- Environmental Impact



*Arundo donax*





# Illyrian thistle

## *Onopordum illyricum*

Related to Scotch thistle  
Adapted to drier conditions  
Known from 1 historic &  
1 new locality in CA  
Very persistent seed bank:  
30 yrs+  
2<sup>nd</sup> location under  
powerlines – from WF?





# Spanish mercury

## *Mercurialis ambigua*

Related to dog mercury

Differs in leaf shape,  
monoecious

Native to Spain

Often in nursery areas

Spread via mulch





# Capeweed (*Arctotheca calendula*)

Rosette annual w/ dark disk fls

Confused w/ *A. prostrata* that is sold as a ground cover

Currently known from  
Marin, Humboldt, San  
Mateo, Merced &  
Stanislaus Counties

Some good control results  
using Milestone

Spread via contaminated  
grass seed





# Oblong spurge (*Euphorbia oblongata*)

Invasive in Coast and  
Sierra foothills

Related to to other  
invasive spurges

Perennial w/  
Seed bank

Entering expansion phase?





# Stinkweed (*Dittrichia graveolens*)

Annual, late-flowering, glandular herb

1st report in CA in 1984

Spreads quickly along roads

Now in at least 26 counties

Inhibits germination crops

Toxic to stock

Contact dermatitis in people

Control via glyphosate or

mowing





*Dittrichia viscosa*  
False yellowhead

New Find in CA  
Similar in ecology to  
stinkwort  
A perennial shrub with  
showy flowers  
Opportunity to  
eradicate?





# Star endive (*Rhagadiolus stellatus*)

Annual herb in part shade

Distinctive fruit

Known from Napa & Sonoma Counties

Often dominant in understory

Serious grain field pest in

Middle East





# Japanese dodder (*Cuscuta japonica*)

Parasite of woody plants  
Spread via birds and humans  
Seed capsules found recently  
Tree removal only treatment  
Over 200 occurrences  
eradicated by CDFFA





# Egyptian broomrape (*Orobanche aegyptiaca*)

Parasite on many crop plants  
incl. tomato, cabbage,  
& carrots

New find for N Am 6/14

Destroying tomato production  
in Israel & Turkey

Most likely pathway via  
contaminated seed or  
transplants

