

## Noxious Weeds in Rangeland ...thinking back.

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Weed and Vertebrate Management  
Fresno County

### Spotted knapweed (*Centaurea maculosa*)



Photo: Fred Rinder – Fresno County Department of Agriculture

### Some knapweed facts...

- Spotted knapweed, an "**A-rated**" pest, is a biennial or short-lived perennial weed of very limited distribution in eastern Fresno County. It has been detected in the Sierra Mountain range in the eastern portion of Fresno County.
- Spotted knapweed grows and spreads very rapidly in disturbed areas.
- There are some indications that it releases chemical substances that inhibit the growth of adjacent plants.
- Spotted knapweed can reach 1 to 3 feet tall.
- It has solitary flower heads at the end of branches. The pinkish-purple flower heads have stiff bracts at the base with a dark comb like fringe giving it a spotted appearance. Flowering occurs June to October.

- Spotted knapweed grows and spreads very rapidly in disturbed areas. Once established spotted knapweed produces a very stout, and deep taproot and becomes much difficult to control.
- Spotted knapweed has the potential to become the yellow starthistle of the high Sierra's.
- Native vegetation, and associated wildlife, would be negatively impacted.
- Timber harvest activities would be delayed or curtailed entirely.
- Infestations of meadows and grazing areas would have a negative impact the cattle industry.
- Due to the limited distribution of spotted knapweed early detection and treatment is critical.
- Each year survey of the original infestation site for spotted knapweed will begin the last week of July in the Shaver Lake area through October.

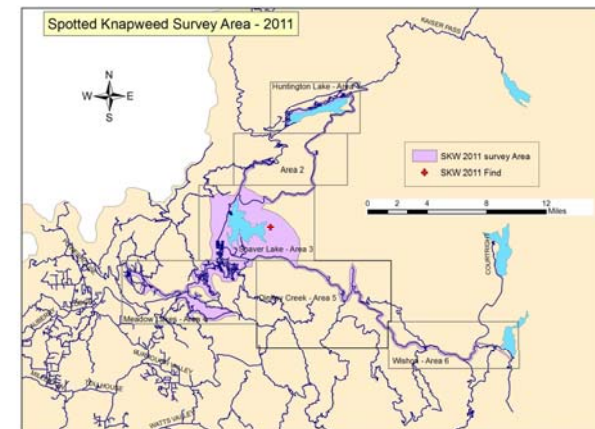
## Knapweed in Fresno County

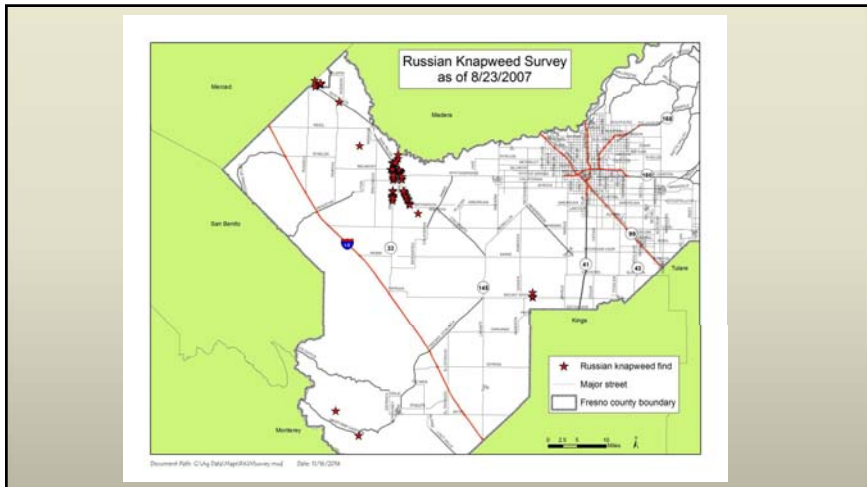
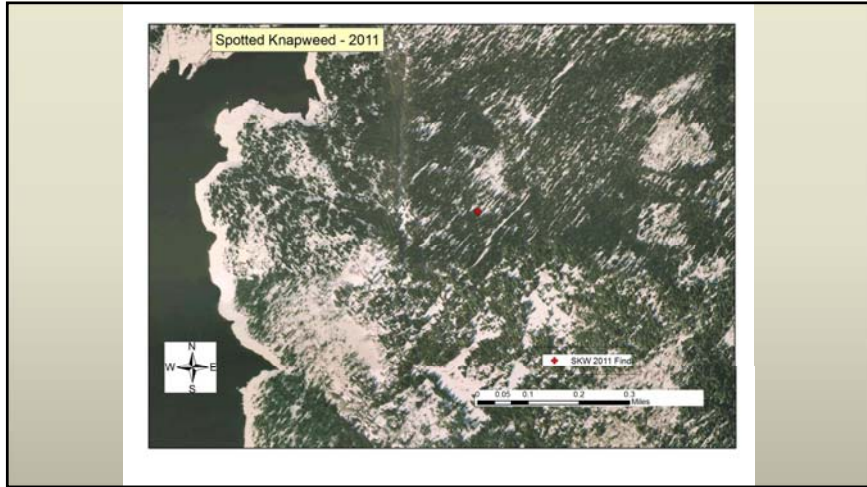
- Spotted knapweed was introduced from Eurasia.
- It was detected in Fresno County on August 1, **1986**, along Highway 168, east of the Big Creek turnoff at an elevation of approximately 6,000 feet. The infestation was treated and subsequent surveys were negative.
- On August 7, **2001**, spotted knapweed was detected by U.S. Forest Service (USFS) personnel on Dinkey Creek Road east of Glen Meadow at an elevation of approximately 6,000 feet. Five adult plants in full bloom were hand pulled. Surveys since 2001 have been negative.
- The latest find was on August 22, **2005**. The infestation site was approximately 1/2 acre at an elevation of 5,664 feet. All stages of growth were present. On August 23, blooming plants were hand pulled. The remaining rosettes were treated. Follow-up surveys in 2006 and 2007 found single flowering plants, which were hand pulled. Subsequent surveys in 2008 through 2014 were negative. However, in 2015 there was a positive find in the same area.

## Spotted knapweed black root

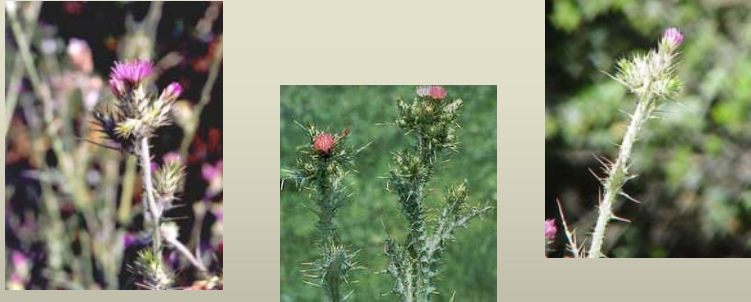


## Shaver Lake infestation August 22, 2005





### Italian thistle (*Carduus pycnocephalus*) B-rated



### Rush skeletonweed (*Chondrilla juncea*)



Photo: Fred Rinder, Fresno County Department of Agriculture

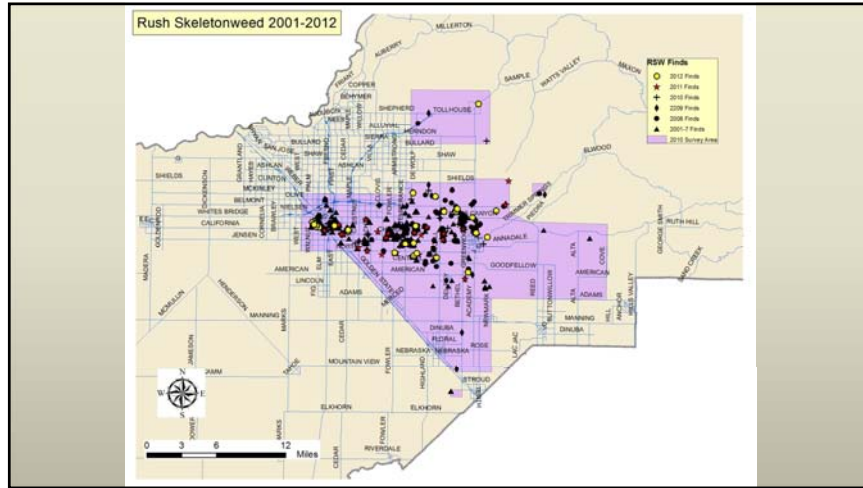
Rush skeletonweed on Hazelwood, Fresno – Extensive deep root system makes plant hard to control. Each plant can produce 20,000 seeds and is spread by wind, vehicles, harvesting machinery and mowers.



Photo: Fred Rinder, Fresno County Department of Agriculture

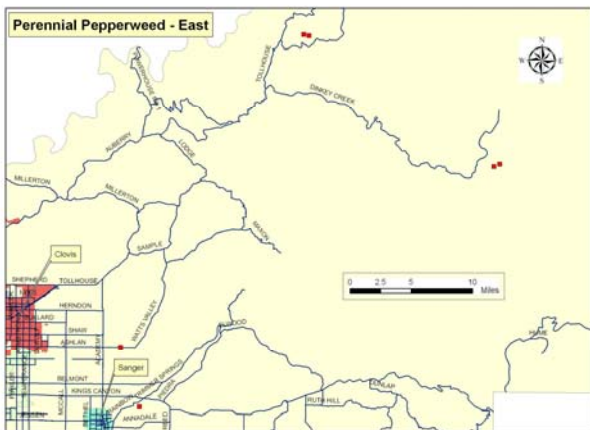
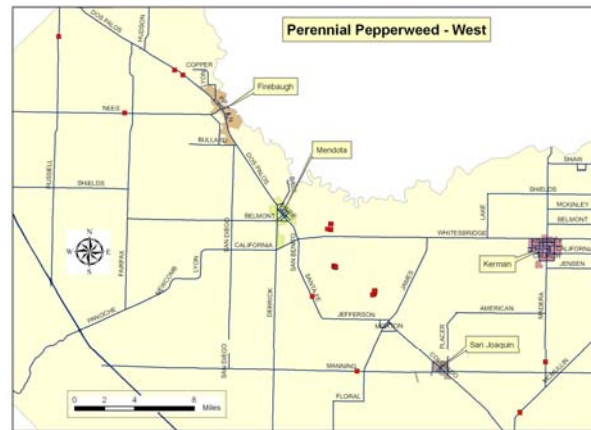
### A short history...

- Rush skeletonweed is an A-rated weed of moderate distribution in Fresno County.
- It is a non-native invasive noxious weed species from southern Europe.
- First introduced to San Luis Obispo County in 1965.
- The earliest known find in Fresno County was July 1981. It was detected in an alley in downtown Fresno near the railroad tracks.
- There were subsequent finds in the 1990's west of downtown Fresno in a residential area.
- Eradication began in 1997.
- Currently it is found in the southeastern portion of Fresno City and southeastward into the urban and agricultural areas of Fresno County.
- Recent finds are within 15 miles of the entrance to Sequoia National Forest on Highway 180.



Perennial pepperweed (*Lepidium latifolium*) in Shaver Lake area. Deep roots make plant hard to control.





Heart-podded hoary cress (*Cardaria draba*) and lens-podded whitetop (*Cardaria chalepensis*)



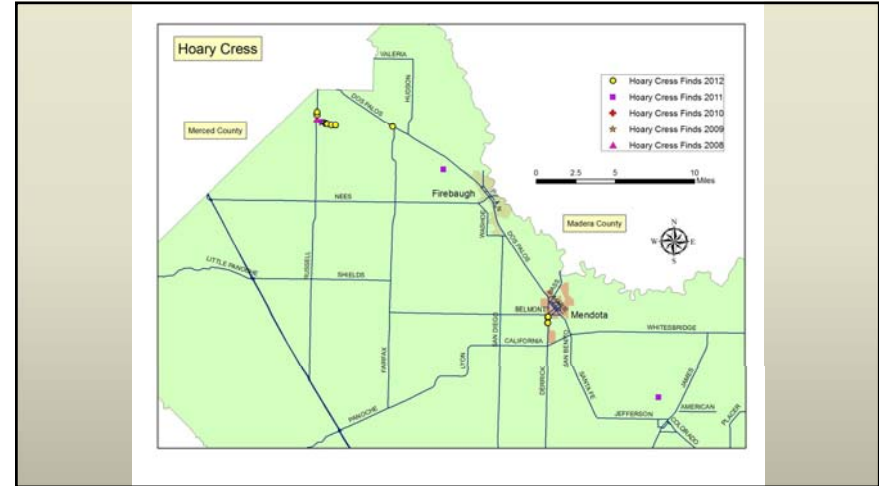


Hoary cress is a non-native invasive noxious weed species native to Europe. It will readily infest disturbed soils.

Hoary cress is a perennial pest in alfalfa.

Livestock that ingest large quantities can develop digestive problems.

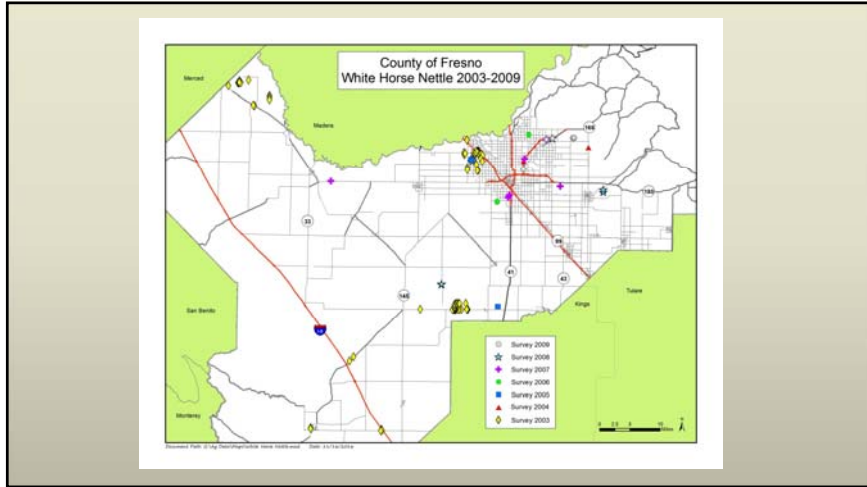
Both species of hoary cress are of very limited distribution in Fresno County. Small populations have been detected northwest of Firebaugh and Dinkey Creek areas.



Whitehorse nettle (*Solanum elaeagnifolium*) – Berries and foliage is poisonous to livestock.

Photos: Fred Rinder, Fresno County Department of Agriculture. - eastern foothills of Fresno County.

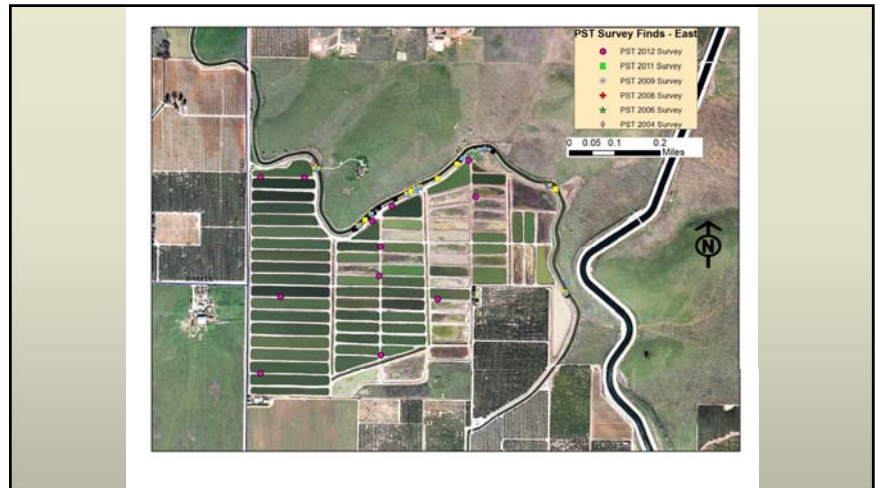
Whitehorse nettle in Highway City, Fresno, CA



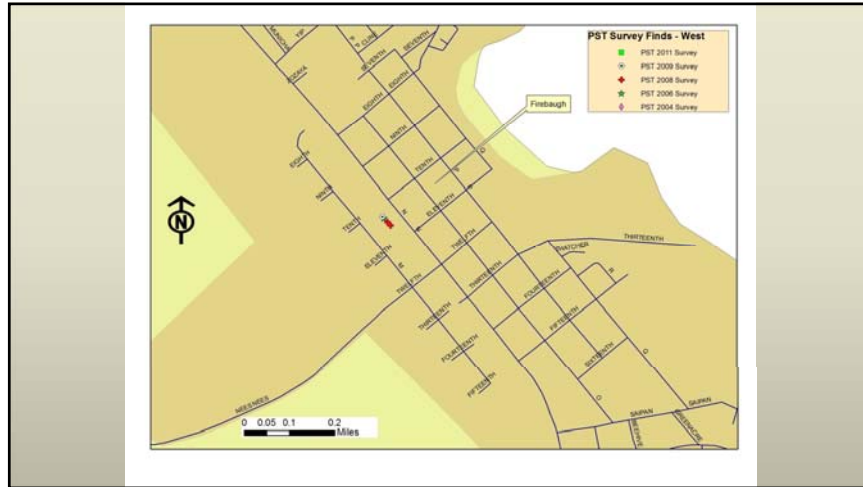
### Purple/Iberian starthistle (*Centaurea iberica*)



Photo – Fred Rinder – Fresno County Department of Agriculture, east of Riverbend.



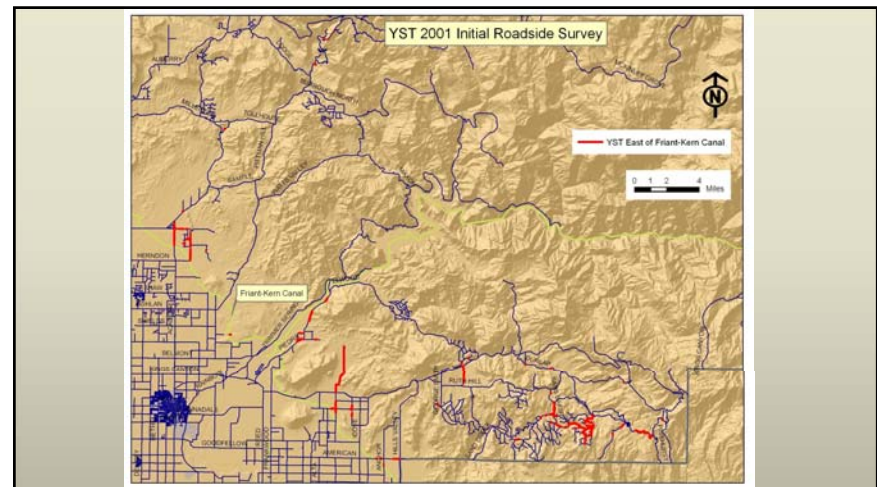


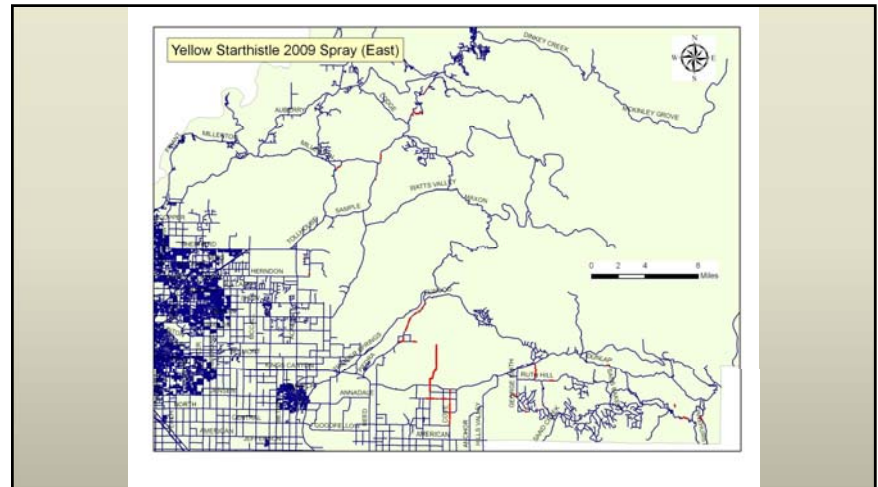
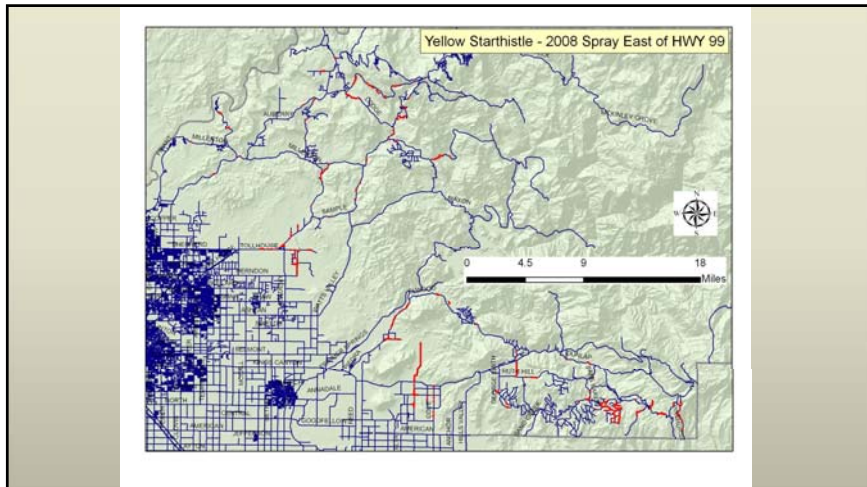
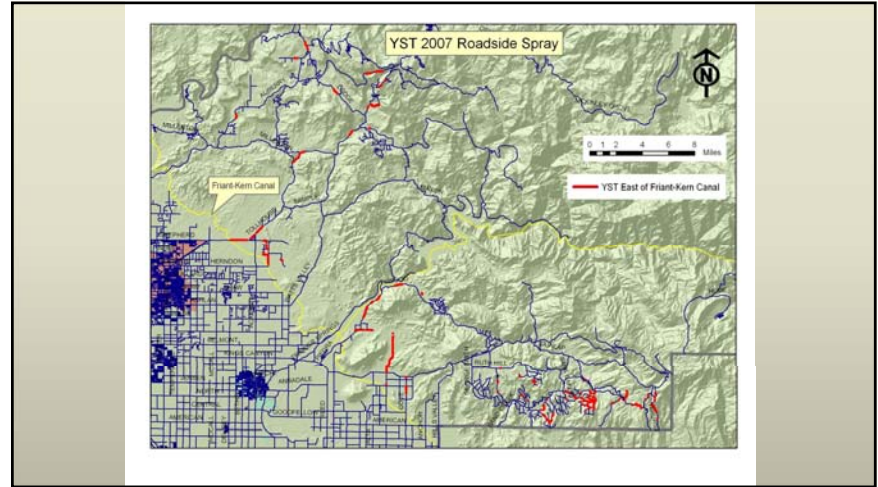
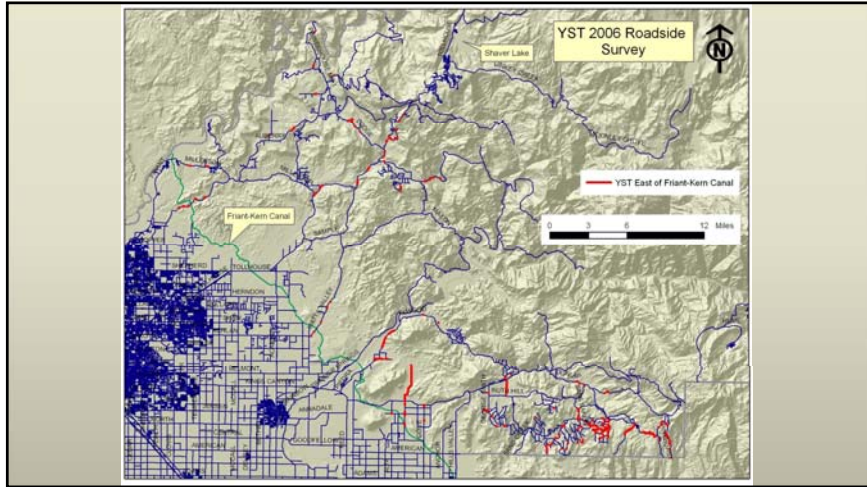


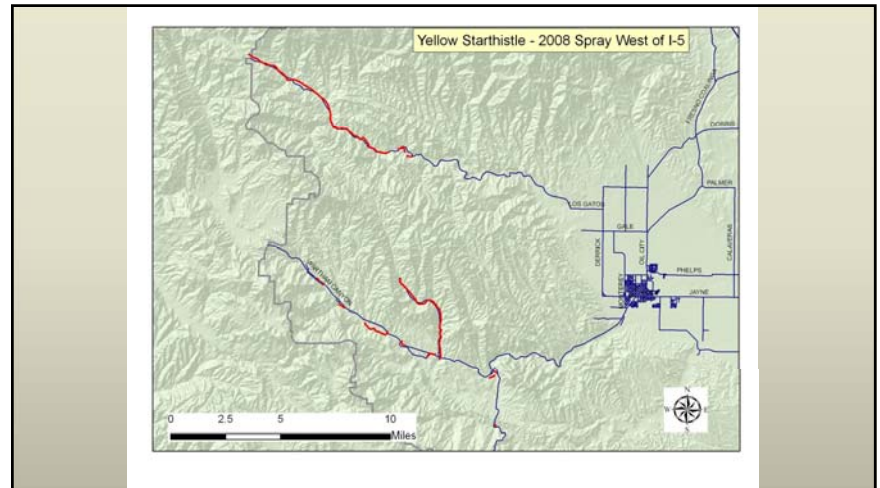
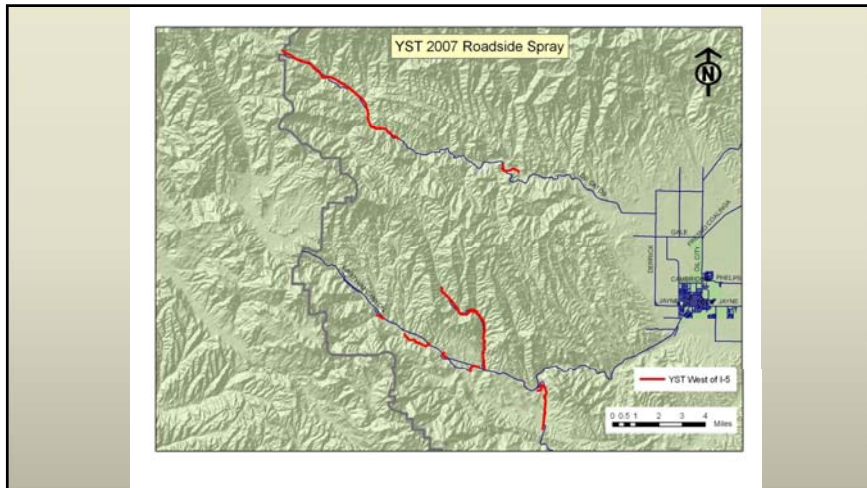
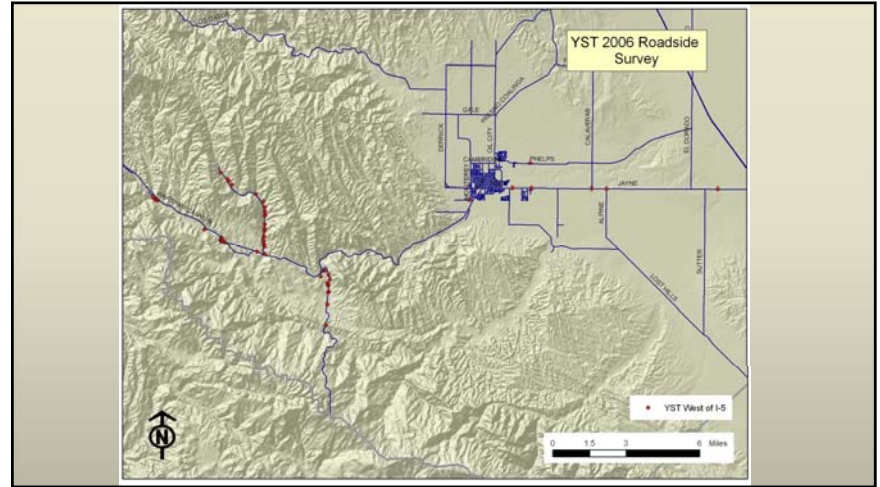
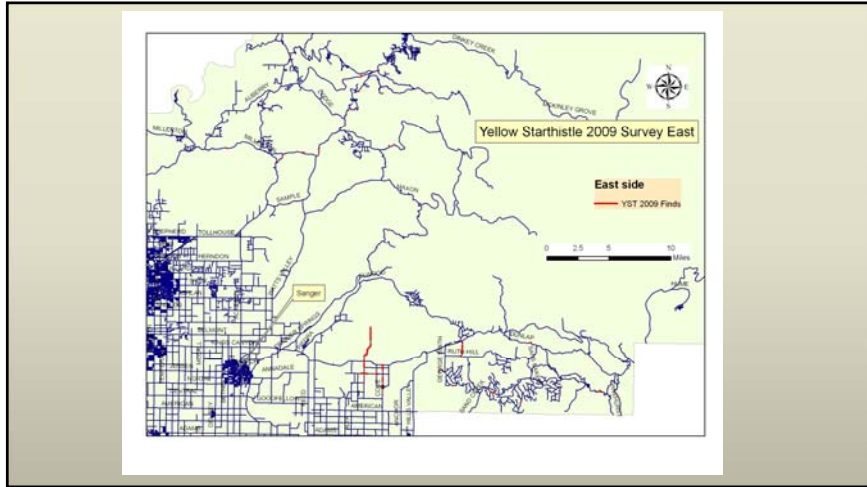
Yellow Starthistle (*Centaurea solstitialis*) C-rated – causes “chewing disease” to horses.

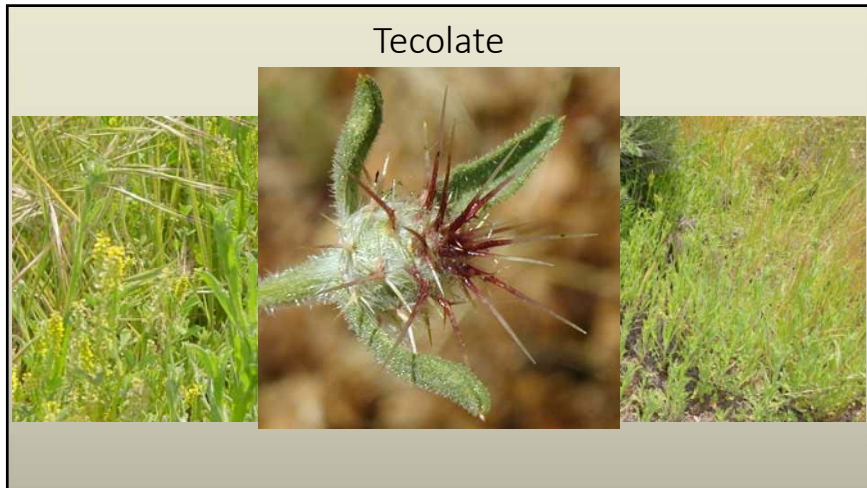
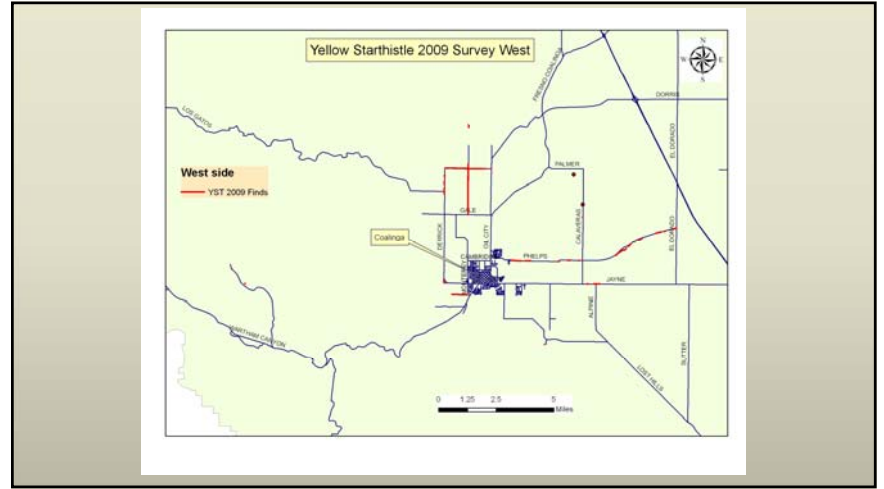
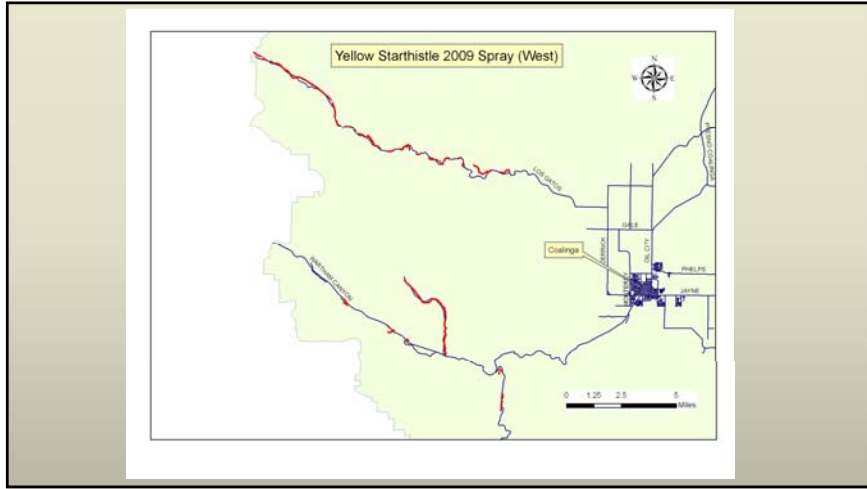


### YST Coalinga Minerals Springs









Diffuse knapweed (*Centaurea diffusa*) – Highly competitive, a threat to takeover pasture and rangeland.



Photo: Fred Rinder, Fresno County Department of Agriculture – Sierra County, Bordertown

Dalmation toadflax (*Linaria genistifolia*) A-rated – like moist and sandy areas.



Photo: Fred Rinder, Fresno County Department of Agriculture – Highway 395 at Sunnyslope

Leafy spurge (*Euphorbia esula*) – Causes severe irritation to the mouth and digestive tract of cattle.



Photo: Fred Rinder, Fresno County Department of Agriculture – Highway 395 south of Carson City, Nevada.

Tansy ragwort (*Senecio jacobaea*) – Toxic to cattle and horses.



Canada thistle (*Cirsium arvense*) – Very aggressive difficult to control. Small population in Converse Basin.



Photo: Fred Rinder, Fresno County Department of Agriculture – Bishop, CA.

Mush thistle (*Carduus nutans*) – Spreads rapidly, and will form dense growth choking out desirable forage.



Photo: Fred Rinder, Fresno County Department of Agriculture – Highway 80, west of Bordertown.

Scotch thistle (*Onopordium acanthium*) – Can grow up to 12 feet tall, forms impenetrable stands.

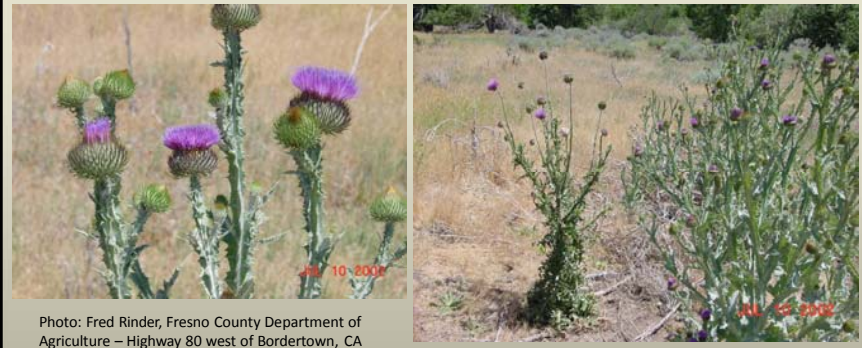


Photo: Fred Rinder, Fresno County Department of Agriculture – Highway 80 west of Bordertown, CA

Distaff thistle (*Carthamus lanatus*)-  
Very spiny, threat to cattle



Photo: Fred Rinder, Fresno County Department of Agriculture – Jamestown, CA