

The logo of the Fresno County Department of Agriculture is a circular seal. It features a central illustration of a green plant with a red fruit, possibly a tomato, and a purple flower. The text "FRESNO COUNTY" is arched across the top, and "DEPARTMENT OF AGRICULTURE" is arched across the bottom. The year "1856" is visible at the bottom center of the seal.

**Japanese Dodder  
Eradication Program  
in Fresno County  
as of September 20, 2007**

**Fresno County Department of  
Agriculture**

# What does Japanese dodder look like?

- Dodder (*Cuscuta spp.*) is a yellow-green, twining, **spaghetti**-like parasite.
- It is highly invasive and has a wide host range.
- Being a **parasite**, it lives on the nutrients of the host plant.



# Common dodder



Photo: Fred Rinder-Fresno County Dept of Agriculture

# What kind of damage does dodder cause?

- Dodder produces structures called **haustoria** which penetrate the host plant's vascular tissue, extracting water and nutrients.
- Dodder can grow up to **6 inches** per day.
- Dodder stems extend to nearby plants, creating new infestations.



# Japanese dodder flowers

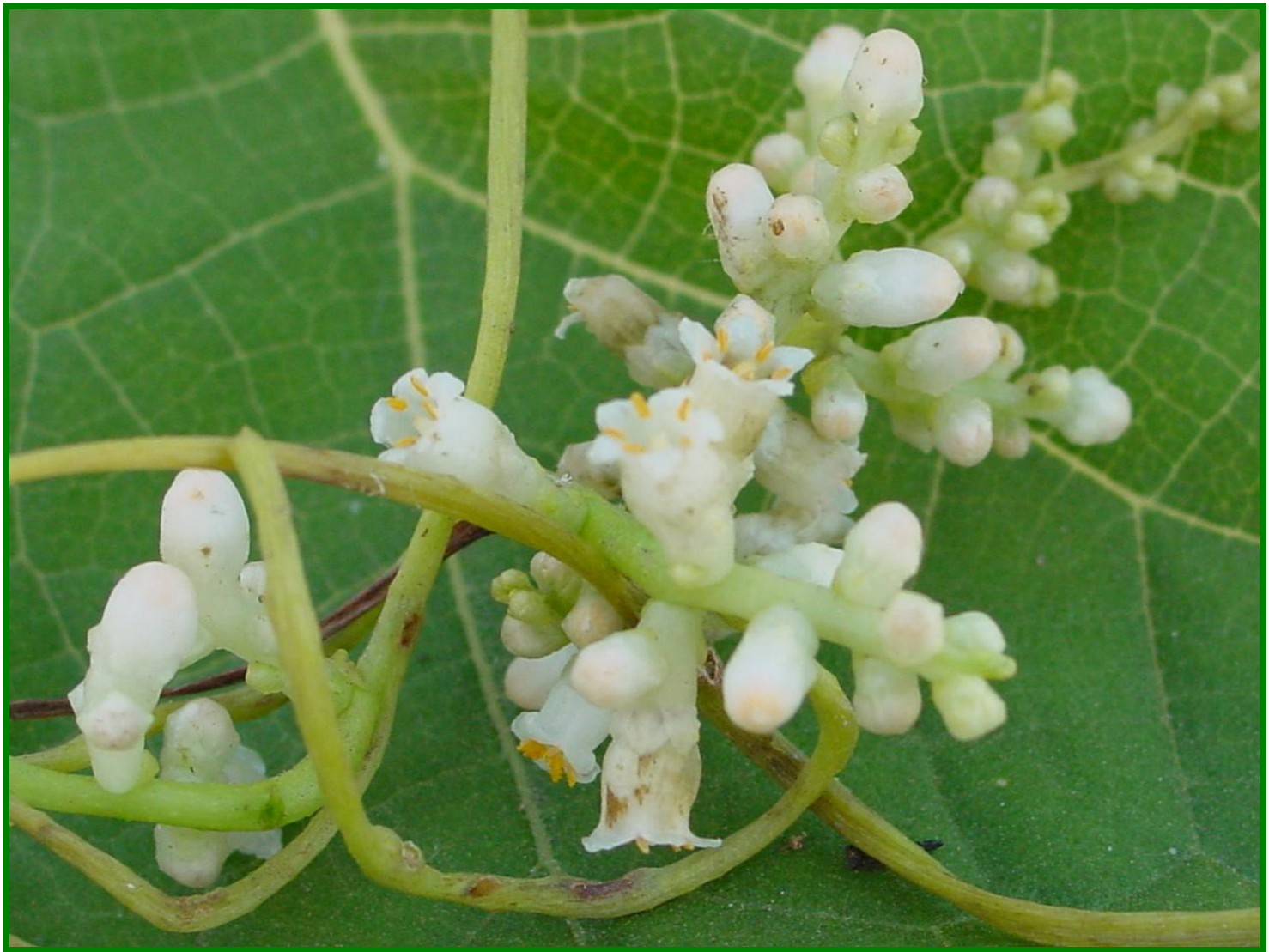


Photo: Fred Rinder-Fresno County Dept of Agriculture

# Flowering Japanese dodder on climbing rose.



Photo: Fred Rinder-Fresno County Dept of Agriculture

**On July 28, 2006, this citrus tree seemed to be dodder free...on October 19, 2006 the Japanese dodder had spread to totally infest the tree.**



**Photo: Fred Rinder-Fresno County Dept of Agriculture**

# What can dodder do to the host plant?



- **Dodder infestations can weaken and kill the host plant. It is believed that dodder is a vector for plant pathogens such as, citrus tristeza, citrus stubborn, and citrus greening disease.**



# Potential hazard to power lines.



Photo: Fred Rinder-Fresno County Dept of Agriculture

# Six year old dodder infestation in citrus.



# Japanese dodder in residential Carolina cherry tree and boxwood



Photo: Fred Rinder-Fresno County Dept of Agriculture

# Infestation of 4+ years



Photo: Fred Rinder-Fresno County Dept of Agriculture

# Old dry Japanese dodder

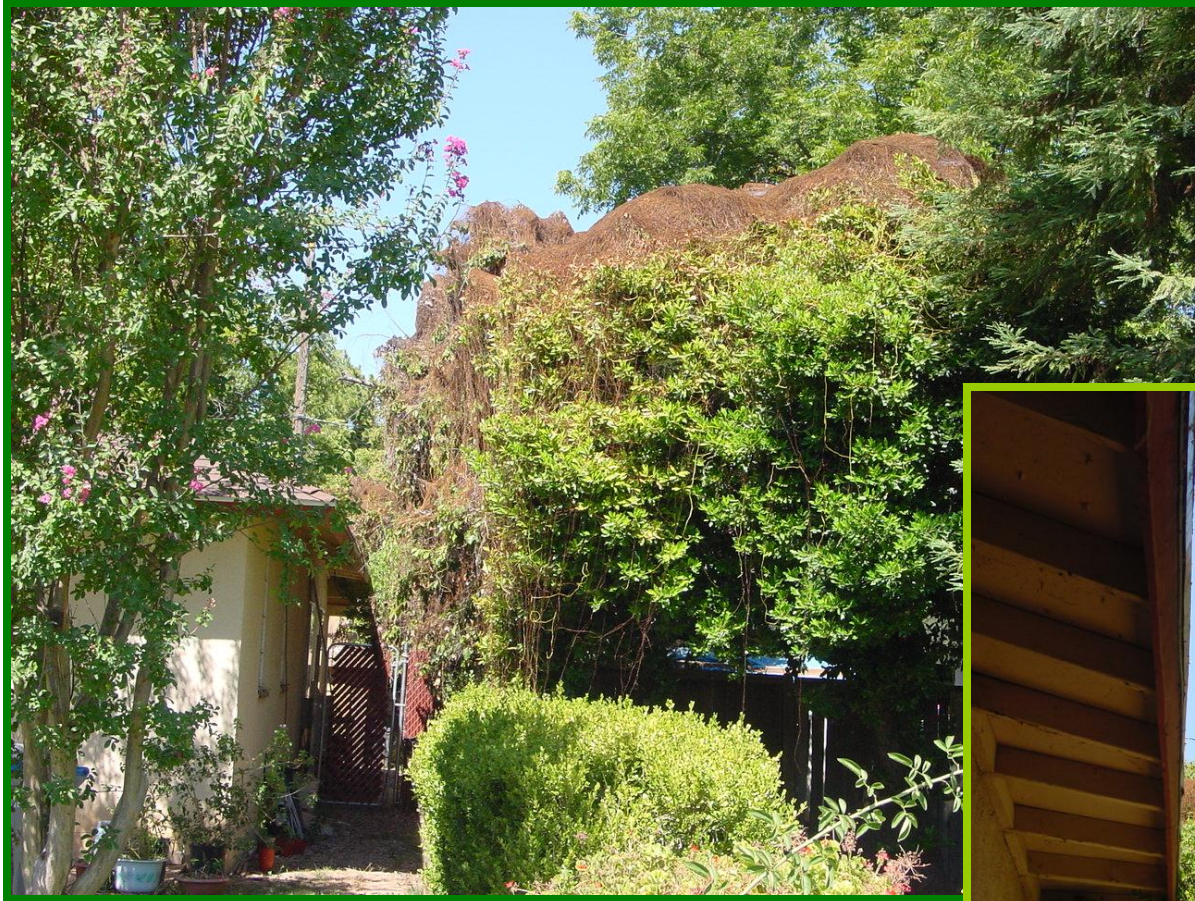


Photo: Fred Rinder-Fresno County Dept of Agriculture

# More old dried dodder



Photo: Fred Rinder-Fresno County Dept of Agriculture

# Dodder in privet and banana



Photo: Fred Rinder-Fresno County Dept of Agriculture

# Dodder in holly shrub



Photo: Fred Rinder-Fresno County Dept of Agriculture



# Japanese dodder in olive tree



Photo: Fred Rinder-Fresno County Dept of Agriculture



**Dodder in  
privet  
and ivy**

Photo: Fred Rinder-Fresno County Dept of Agriculture

# Japanese dodder creeping into Deodora Cedar



Photo: Fred Rinder-Fresno County Dept of Agriculture

# Japanese dodder in a plum tree



# Japanese dodder on castor bean



Photo: Fred Rinder-Fresno County Dept of Agriculture

# Japanese dodder in poisonous oleander



Photo: Fred Rinder-Fresno County Dept of Agriculture

# How do you get rid of dodder?



There is no herbicide treatment for the control of Japanese dodder. At this time, host plant removal and burial at a local dump site is the only method of control.

**Because dodder can spread through fragmentation the host plants must be wrapped in plastic.**



**Even the bed of the dump truck must be covered.**



# Infested material being cut down for plastic wrap and removal



Photo: Fred Rinder-Fresno County Dept of Agriculture

# Search for fragments



# Removal complete



# Dumped and buried at the American Ave dump



Photo: Fred Rinder-Fresno County Dept of Agriculture

# Joint effort by Fresno County Parks and Grounds Division and Department of Agriculture



# So what is in store for the future?

- **CDFA Japanese Dodder Eradication Program in Fresno County:**
  - **Delimitation**
  - **Detection**
  - **Regulatory**
  - **Eradication**
  - **Post-Treatment Monitoring**
  - **Public Outreach and Education**

# Delimitation



- **FCAC staff will conduct surveys examining all plants within a 200-meter radius of each property/site where JD was found in 2006.**
- **During 2007, a delimitation survey will be conducted within 14 days of any confirmation of JD.**

A stylized illustration of a man wearing a tan hard hat and safety glasses, holding a magnifying glass over a globe. The globe is light blue and white, and the man's face is partially visible behind it. The background is a light tan color.

# DETECTION

- **Fresno County Agricultural Commissioner (FCAC) staff will:**
  - Conduct a systematic **visual survey** of any square mile grid that contained Japanese Dodder (JD).
  - Insect pest detection trappers will perform **general survey** during the normal servicing of the traps.
  - All suspected detections reported by the trappers will be followed-up by site and adjacent properties **inspections**.



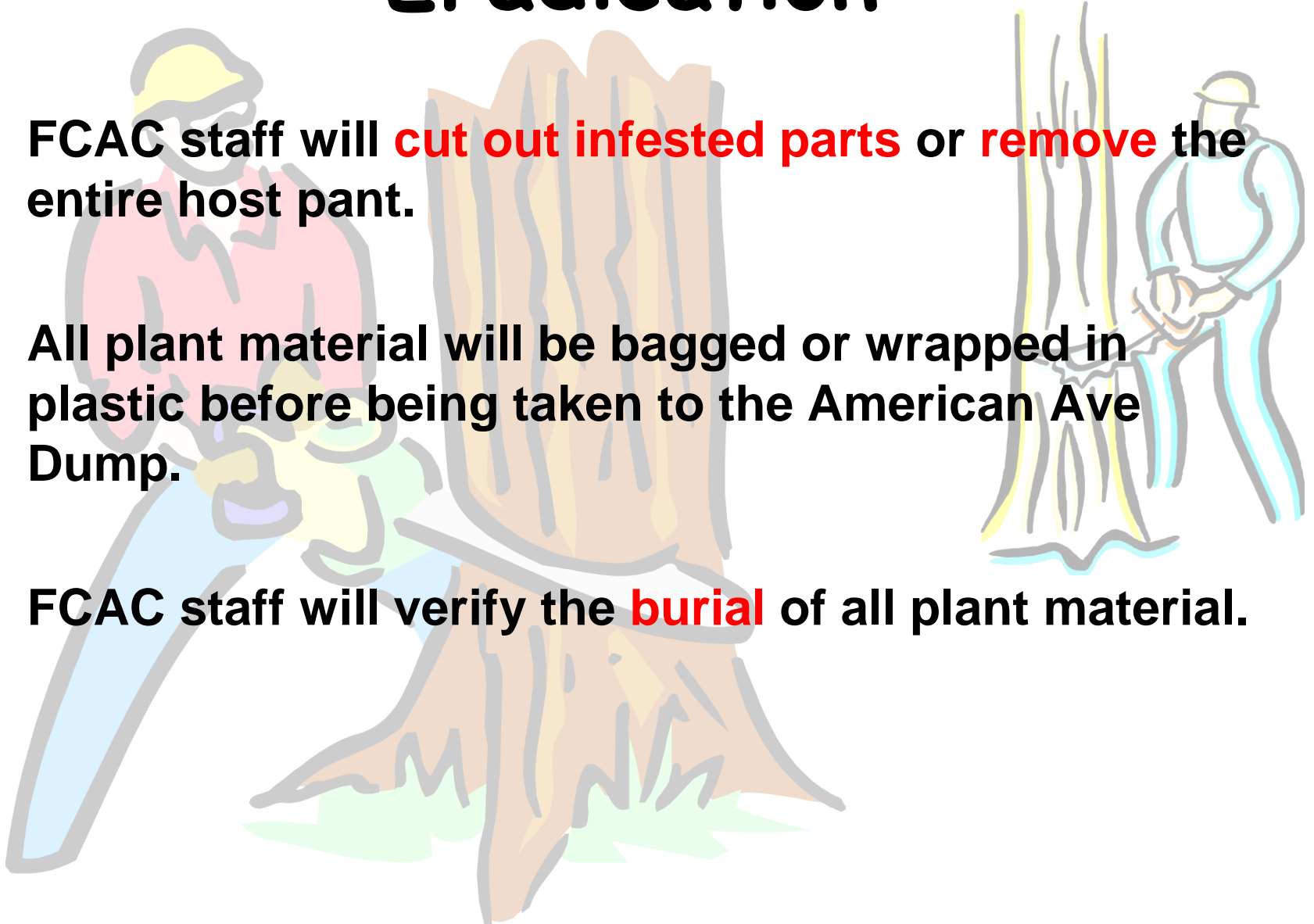
# Regulatory

- FCAC staff will issue **Hold Notices** to all infested properties to prevent the unregulated movement of plant material from the site.
- FCAC will issue **Compliance Agreements** for outside gardeners or landscapers working on infested sites.



# Eradication

- FCAC staff will **cut out infested parts** or **remove** the entire host plant.
- All plant material will be bagged or wrapped in plastic before being taken to the American Ave Dump.
- FCAC staff will verify the **burial** of all plant material.



# Post-Treatment Monitoring

A cartoon illustration of a man in a suit standing at a podium, celebrating with balloons and streamers. The man is smiling and has his right arm raised. There are two balloons, one light blue and one yellow, and several streamers in blue, pink, and yellow. The podium is orange with a blue and pink cloth draped over the front.

- FCAC staff will monitor JD sites for **two years**.
- Eradication will be **declared** if the post-treatment monitoring is **negative one year** after treatment.

# Public Outreach and Education

- Large and small posters will be distributed to nurseries, large retail outlets, the Big Fresno County fair, community centers, etc.



# 2007 sites



Photo: Fred Rinder - Fresno Co Ag Dept

# Burrito Supreme



Photo: Fred Rinder -  
Fresno Co Dept of Ag

# Japanese dodder in Boston ivy on a wall



Photo: Fred Rinder - Fresno County Department of Agriculture

# Peel and Wrap....



Photo: Fred Rinder - Fresno Co Dept of Ag



# Half way done...



Photo: Fred Rinder - Fresno Co Dept of Ag

# Fence down...dodder gone...fence up



Photo: Fred Rinder - Fresno Co Dept of Ag

**Who do you notify if you think you have seen Japanese dodder?**



- Fresno County Department of Agriculture  
1730 S Maple, Fresno
- Phone Number: 456-7510