



Riverside Fwy – Santa Ana Canyon

Ailanthus Control Methods

Ailanthus altissima

Common names in U.S.:

West Coast – (Chinese)
Tree of Heaven

East Coast – Stink Tree

 **California Taxon Report 161**

Ailanthus altissima (Mill.) Swingle
Ailanthus, Tree of heaven

Ailanthus altissima, a dicot, is a **tree** that is **not native** to California.
[Cal-IPC](#) rating: Moderate

Plant Range

Observation Search
(4435 records)

Plant Characteristics

□ one or more occurrences within a 7.5-minute quadrangle

© 2021 California

Bloom Period

Photos from [California / CalPhotos](#)

Family: [Simaroubaceae](#)
Genus: [Ailanthus](#)

Name Status:
Accepted by PLANTS

Alternate Names:
PLANTS [Ailanthus glandulosa](#)
PLANTS [Toxicodendron altissimum](#)

Toxicity: MINOR, DERMATITIS **Wetlands:** Occurs usually in non wetlands, occ
Habitat: disturbed
Communities: weed, characteristic of disturbed places



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photo size: 

WIDESPREAD IN SOUTHERN CALIFORNIA & SIERRA NEVADA FOOTHILLS

Natural Areas treated during past 20 years:

Whittier Narrows – Army Corps Engineers

Griffith Park – City of Los Angeles

Montecito Heights – North East Trees

Big Tujunga Canyon – Angeles N. Forest

Mill Creek Canyon – Inland Empire RCD

Private yards treated during past 10 years:

Mt. Washington/Pasadena --- 75

Calabasas/Agoura/Topanga – 15

Lake Hughes/Leona Valley --- 18



Ailanthus flourishes in degraded soil where few other trees can survive;
abundant on abandoned factory sites of eastern US.



CONTROL AND UTILIZATION OF TREE-OF-HEAVEN

A Guide for Virginia Landowners

Ubiquitous in vacant lots
and abandoned factories of
eastern U.S.; increasingly
common in wildlands.



VIRGINIA DEPARTMENT OF FORESTRY
WWW.DOF.VIRGINIA.GOV

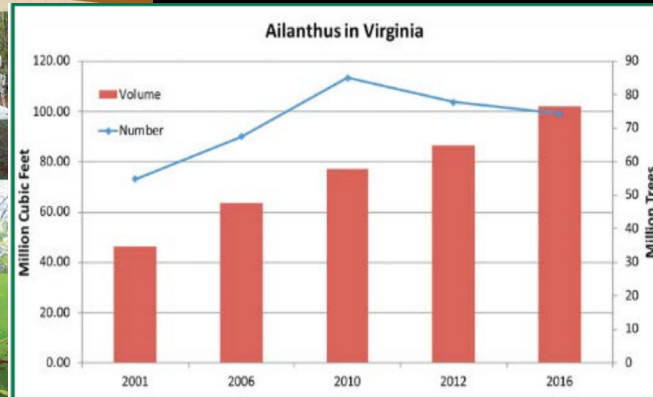


Figure 1. Volume and number of trees (≥ 5.0 inches d.b.h.) of Ailanthus by survey year, Virginia.

How to recognize Ailanthus

- > Long pinnate compound leaves
- >> Leaflets have notch at base
- >>> Mottled yellow-gray bark
- >>>> Foliage odor resembles male cat urine (Wikipedia) or rancid peanut butter



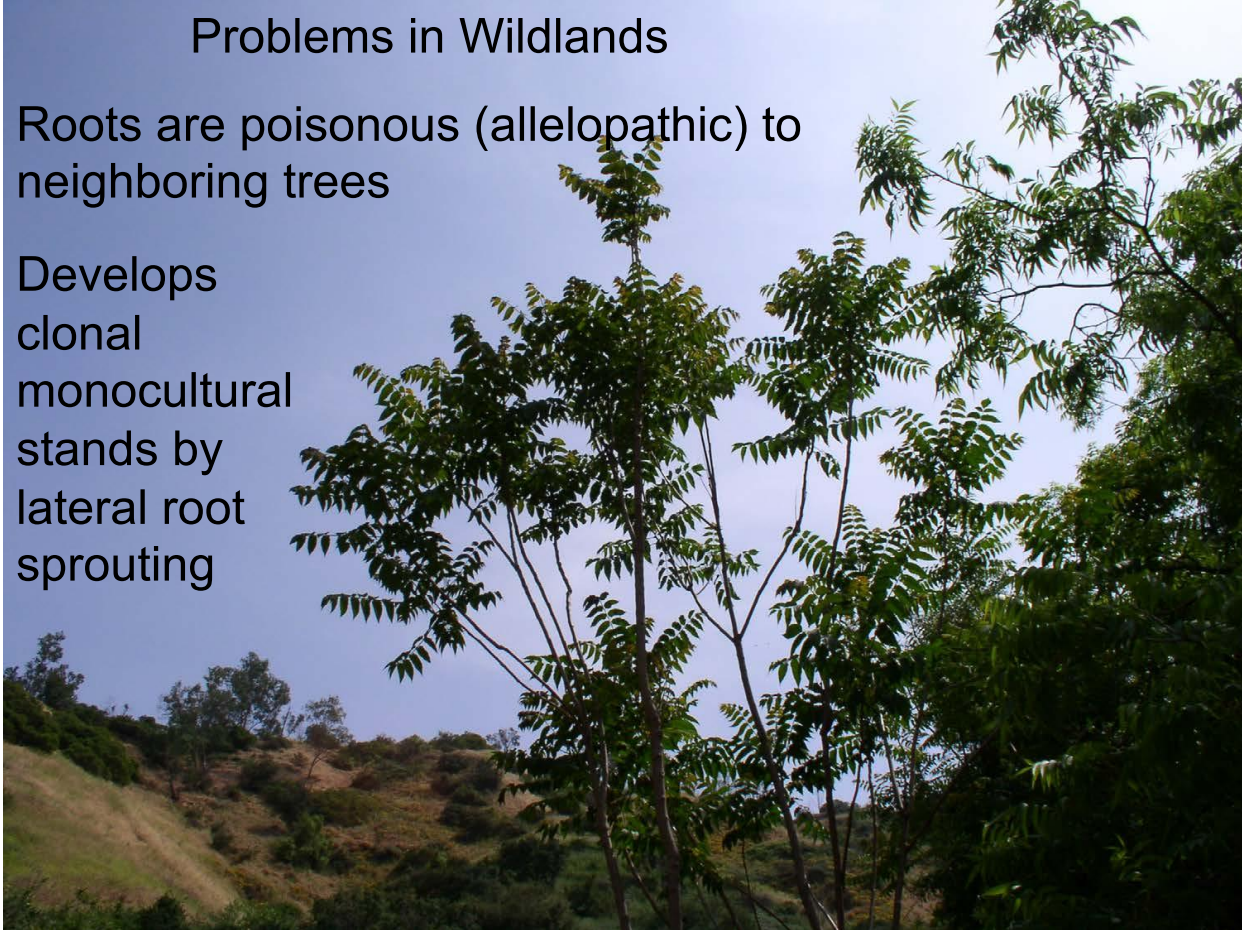


In Big Tujunga Canyon, basal bark application of Pathfinder II herbicide accentuates yellow-gray mottling of bark on 2-inch trunk

Problems in Wildlands

Roots are poisonous (allelopathic) to neighboring trees

Develops
clonal
monocultural
stands by
lateral root
sprouting

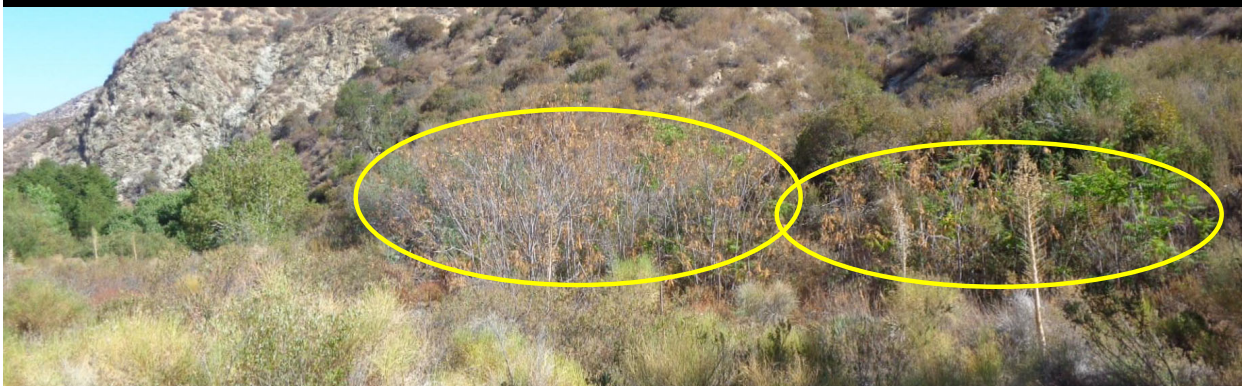


**Large parent tree surrounded by saplings grown from lateral roots –
outlier plants to left, possibly sprouted from seeds --
6 weeks after herbicide treatment, in Santa Fe Dam basin
of San Gabriel Valley**

Half-acre dense grove of
Ailanthus at Griffith Park



**Quarter-acre Ailanthus grove
on Glendora Ridge in San Gabriel Mountains,
4 weeks after herbicide treatment**



Upper: Ailanthus grove in Big Tujunga Canyon, sprouted after 2009 wildfire
Lower: Defoliated trees 7 weeks after basal bark herbicide application

AILANTHUS Control Considerations

- > Felling or girdling trunks causes profuse root sprouting
- > Has thin bark like castor bean, so saplings & juvenile trees are susceptible to basal bark application of Pathfinder II without cutting
- > For large trunks, use hatchet to chop frill cuts in vertical rows, followed by basal bark treatment with Pathfinder II
- > Imazapyr (BASF's Stalker & Habitat) effective for foliar spraying of saplings



Preferred Control Methods

Highly susceptible to triclopyr herbicide

→ Pathfinder II for basal bark

→ or 25% Garlon 4 in veg oil or diesel oil



Apply Pathfinder II herbicide using spray bottle with chemical-resistant trigger, available from janitorial supply stores.

Basal-bark treatment of large multi-trunk plants takes less than one minute



No cutting of bark required on largest trunks with diameters up to 16 inches



Unlike girdling, vertical columns of frill cuts by hand ax followed by basal bark application preserves fluid communication between tree crown and roots, thus avoiding massive sucker sprouting from lateral roots

Successful
single basal-
bark treatment
near Arroyo
Seco



Successful
single basal-
bark treatment
in Santa Ana
Canyon





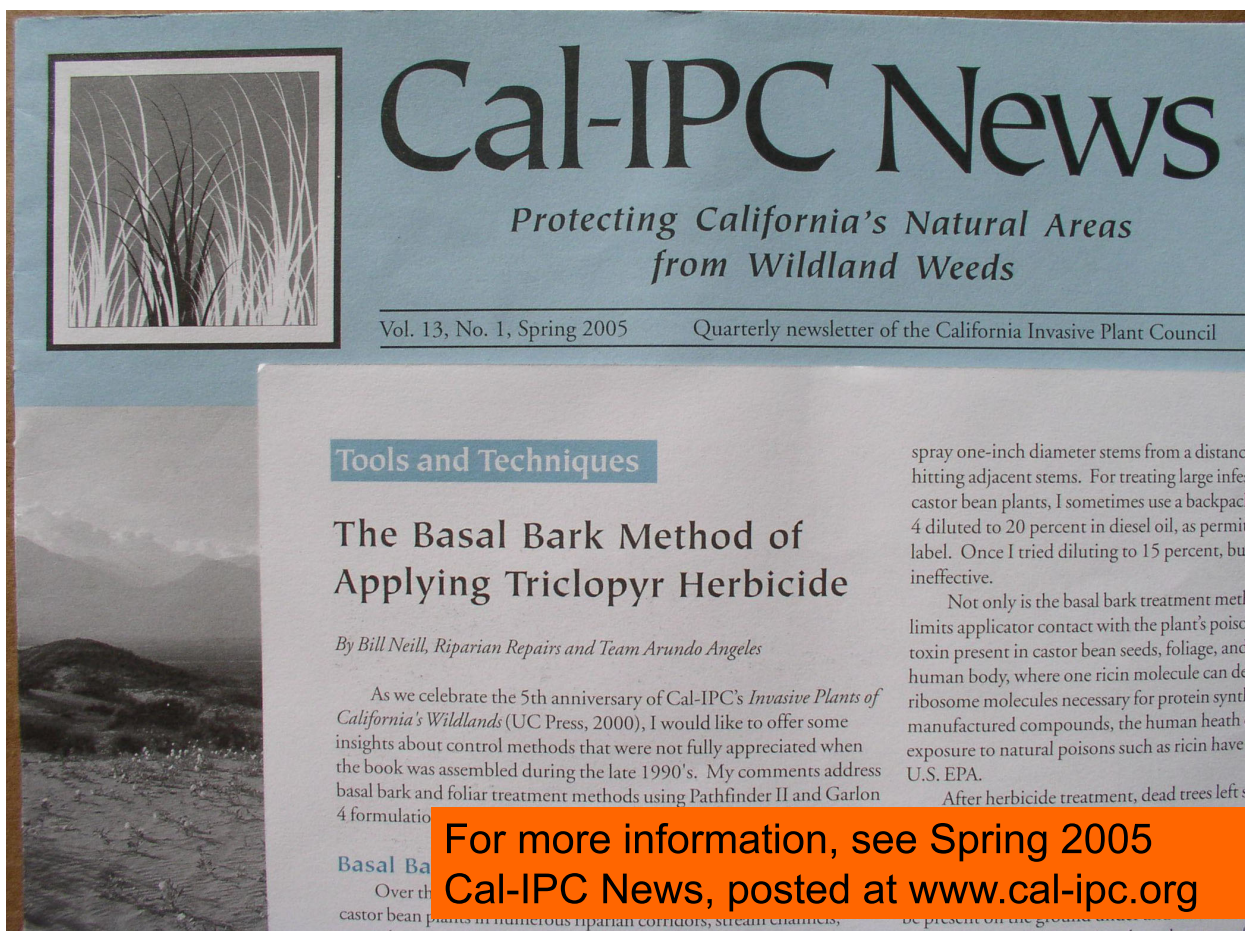
**One-acre grove of Ailanthus trees in Montecito Heights
(northeast of downtown Los Angeles) in July 2020,
two weeks after basal bark application of Pathfinder II at top**



**One-acre Ailanthus grove in Montecito Heights, September 2020,
6 to 8 weeks after basal bark application of Pathfinder II;
approx. 150 trunks treated in 4 hours with 1 gallon herbicide**



One-acre grove of dead *Ailanthus* trees at Montecito Heights, July 2021, one year after basal bark herbicide treatment; foliage of few new stems sprayed with dilute imazapyr



After cutting without herbicide, shallow roots sprout abundant saplings that can be controlled by foliar spraying



Los Angeles freeway margin



After wildfire, Ailanthus foliage grows rapidly from root crowns and lateral roots, here at Whittier Narrows. Fire followed by foliar spraying allows control of established groves relatively easily and cheaply.



One options: Spray post-fire foliage with 2.5% imazapyr herbicide (Habitat or Polaris) plus methylated seed oil to control regrowth effectively and easily.



Imazapyr is effective at translocating through long lateral roots, but slow-acting so foliage turns yellow and wilted about 4 to 6 weeks after application



About ten weeks after foliar spraying, *Ailanthus* foliage is mostly brown; resprouted Mexican elderberry behind dead foliage is thriving.



The preferred herbicide for *Arundo* control stops protein synthesis by plants, hence is inert to animal life.

Habitat herbicide is registered for aquatic use, and livestock are allowed to drink treated water.



Capstone®

HERBICIDE

- ▣ Excellent **grass safety**
- ▣ **Caution** signal word
- ▣ **Premix of Milestone + Garlon 3A**
- ▣ Broadcast use rates up to 9 pt/a or 9 qt/a max for spot treatments (50% acre limit)
- ▣ Not a Restricted Use Pesticide
- ▣ **Best Post Resistance Management Product on the market**
 - No grazing restrictions
- ▣ Packaging: 2.5's, 30's, bulk

GROUP	4	HERBICIDE
Active Ingredient:		
Trisopropanolammonium salt of 2-pyridine carboxylic acid, 4-amino-3,6-dichloro-.....		2.22%
Triethylamine salt of [(3,5,6-trichloro-2-pyridinyl)oxy]acetic acid).....		16.22%
Other Ingredients		81.56%
Total		100.0%
Acid Equivalents:		
aminopyralid (2-pyridine carboxylic acid, 4-amino-3,6-dichloro-) – 1.15% (0.1 lb/gal)		
triclopyr (3,5,6-trichloro-2-pyridinyloxyacetic acid) – 11.63% (1 lb/gal)		

Precautionary Statements

Hazards to Humans and Domestic Animals

EPA Reg. No. 62719-572

CAUTION

Harmful if Swallowed • Causes Moderate Eye Irritation

Avoid contact with eyes, skin or clothing.

Personal Protective Equipment (PPE)

Some of the materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical-resistance category selection chart.

Do not apply to persons, etc. in the area or Tribe, etc.

Not For Sale

Not for use in New Hampshire

are permitted these sites

Vermont
New York

Entry Restriction

or allow other

Agriculture

Use this product

Capstone equivalent to
5% Milestone & 36% Garlon 3A

*Tree of Heaven Demo in Visalia
Foliar treatment
9 pints of Capstone/acre*



Beau Miller slide

*Tree of Heaven Caltrans Demos
With Capstone 9 pts/acre or 5% v/vol*



Pretreatment



Capstone @ 28
DAT



Dead Ailanthus
Roots
7 MAT

28 DAT



Beau Miller slide

Capstone on Tree of Heaven 7 months after treatment



THE ROLE OF HERBICIDES IN PRESERVING BIODIVERSITY

by Jake Sigg

NO DATA EXIST for private land, but the Bureau of Land Management estimates that the United States is losing 6,000 acres of public land every day to invasive non-native plants (4,600 acres a day in the West alone), rendering land economically useless and biologically impoverished. In the frequently polarized debate over the use of herbicides in battling aggressive weeds, the subject of biodiversity is too often lost. Herbicides, per se, have become the focus of the debate. This is backwards—biological diversity should be front and center. This is the pivot on which CNPS policy must turn. Does proper use of herbicides work for or against biodiversity? Herbicide critics usually isolate the subject. They neglect the differences among herbicides and fail to address the serious weed problem confronting the California flora. I am a proponent of judicious use of herbicides, and favor their employment as a vital part of a weed management strategy.

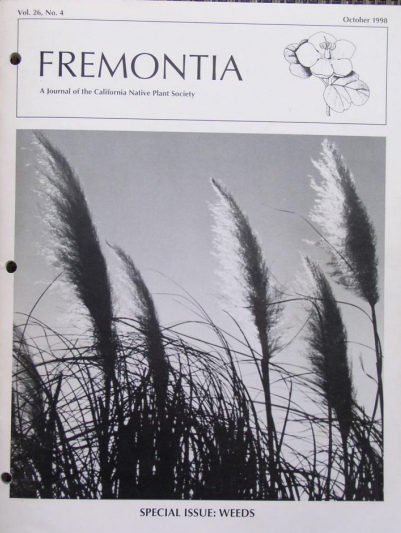
Our discomfort with chemicals began with revelations in Rachel Carson's *Silent Spring* in the 1960s. The use of chemicals as a quick fix for complex problems created a backlash, resulting in a regulatory climate that protects the public against many of the dangerous substances used indiscriminately in the past. Herbicides became entangled in the reaction to chemicals, but evidence is skimpy re-

at those "who are unwilling to accept a short-term environmental insult to avoid a long-term ecological catastrophe." Weed warriors are keenly aware that once native

biological control agents they find it difficult to find them sometime and deeply paid

Our present native weeds are ecological agents, man and herbicides.

Classical biological control perhaps only, by means of reducing the ample of classic (Hypericum) plants in northern lands in northern which has been introduction of Klamath weed. for some plants tural crops or predators that feeding a biological control agent is initially expensive and time-consuming, and there is no guarantee of success. Un-



That's all, Folks!

Thank you!