

This WEED REPORT does not constitute a formal recommendation. When using herbicides always read the label, and when in doubt consult your farm advisor or county agent.

This WEED REPORT is an excerpt from the book *Weed Control in Natural Areas in the Western United States* and is available wholesale through the UC Weed Research & Information Center (wric.ucdavis.edu) or retail through the Western Society of Weed Science (wsweedscience.org) or the California Invasive Species Council (cal-ipc.org).

Phoenix canariensis Chabaud; Canary Island date palm
Washingtonia robusta H. Wendl.; Mexican fan palm

Date and fan palm

Family: Arecaceae

Range: These are wildland weeds in southern California, but plants have also escaped along roadsides and urban areas in other states.

Habitat: Landscaped areas, urban places, riparian streams, particularly near rural areas, and orchards.

Origin: Canary Island date palm is native to the Canary Islands. Mexican fan palm is native to central Mexico, but not the northern mountain deserts. It has also invaded northwestern Mexico. Both are commonly cultivated as landscape ornamentals.

Impacts: Expansion of both species in riparian stream and river corridors can threaten native biodiversity. Populations are densest downstream from the sources of invasion, which are typically residential areas.

California Invasive Plant Council (Cal-IPC) Inventory: *Phoenix canariensis*, Limited Invasiveness; *Washingtonia robusta*, Moderate Invasiveness (Alert)



Both palms are perennials with single woody-like trunks. Mature plants can grow to 100 ft tall, but invasive populations are typically much shorter. Canary Island date palm has pinnately-compound leaves, up to 20 ft long and persistent on the trunk. Mexican fan also has persistent leaves, palmately veined to compound when torn, that are 3 to 6 ft wide.

Flowers develop within the leaf crowns. In Canary Island date palm, plants are dioecious with male and female plants. Fruit are edible and brown when mature. Mexican fan palms have black fruit that are not edible. Both species only reproduce by seed. Birds ingest fruits and disperse the seeds with their droppings. Seeds are large and readily carried by winter rains from landscaped areas down storm drains into nearby creeks and rivers.

NON-CHEMICAL CONTROL

Mechanical (pulling, cutting, disking)	Young palm plants can be hand pulled. Older plants can be cut at the base with a chainsaw. This can be a very effective control strategy for taller plants, where herbicide treatment to the foliage can lead to significant drift.
Cultural	Fire and grazing are not appropriate strategies for the control of palms. Reports indicate that cut stumps can be covered with clear plastic for solarization treatment.
Biological	There are no biological control agents available for palms.

CHEMICAL CONTROL

The following specific use information is based on reports by researchers and land managers. Other trade names may be available, and other compounds also are labeled for this weed. Directions for use may vary between brands; see label before use. Herbicides are listed by mode of action and then alphabetically. The order of herbicide listing is not reflective of the order of efficacy or preference.

GROWTH REGULATORS

Triclopyr	Rate: Spot treatment: 10% of <i>Garlon 4 Ultra</i> concentrate (v/v) or 50% of <i>Garlon 3A</i> concentrate (v/v), or
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<p><i>Garlon 3A, Garlon 4 Ultra, Pathfinder II</i></p>	<p><i>Pathfinder II</i> undiluted as a ready to use herbicide Timing: Postemergence into apical buds of smaller plants. Remarks: Spot treatments should be made into the centers of smaller plants. This will reduce damage to other species adjacent to invasive palms.</p>
<p>AROMATIC AMINO ACID INHIBITORS</p>	
<p>Glyphosate <i>Roundup, Accord XRT II, and others</i></p>	<p>Rate: 50% v/v for spot treatment into drill holes. Undiluted for cut stump treatments. Timing: Apply directly into stems either in drilled holes or after cutting. Remarks: Plants can be trimmed with a chainsaw, then drilled with a 5/16-inch construction drill bit. A 50% dilution of concentrated glyphosate (about 0.5 oz) is added to the drill hole. Fan palms can usually be killed with a single drill hole. Date palms are harder to kill because they have three vascular bundles, so more holes will need to be drilled. Undiluted glyphosate can be used to treat cut stumps.</p>
<p>BRANCHED-CHAIN AMINO ACID INHIBITORS</p>	
<p>Imazapyr <i>Arsenal, Habitat, Stalker, Chopper, Polaris</i></p>	<p>Rate: 1% v/v solution for spot treatment Timing: Postemergence to fully developed leaves of smaller plants. Remarks: Imazapyr is fairly nonselective. When not near aquatic areas, the ester formulation (<i>Stalker</i> or <i>Chopper</i>) would be expected to be more effective.</p>

ECOMMENDED CITATION: DiTomaso, J.M., G.B. Kyser et al. 2013. *Weed Control in Natural Areas in the Western United States*. Weed Research and Information Center, University of California. 544 pp.