

Control Cholla Cactus

Revised by Kert Young¹

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Cholla, often called tree cactus, walkingstick cholla, or cane cactus, is widely distributed throughout most areas of New Mexico. It is a tree-like plant growing to 8 ft tall with cylindrical joints 1 in. in diameter and 3–5 in. long. Spines are numerous and about



1 in. long. Cholla flowers are purple and mature into yellow fruit. The fruit drops to the ground when ripe, producing new plants. Cholla also can reproduce from terminal joints that fall to the ground and root when moisture is available.

Cholla often becomes a problem on rangeland when the grass cover is depleted by drought and over-utilization. After establishment, the cactus encroaches upon valuable range until dense thickets develop. These thickets hinder livestock operations and compete with needed forage for moisture and nutrients. Thick stands often result in livestock becoming “cholla eaters.”

Mechanical Control Methods

Hand Grubbing

You can control cholla easily by “grubbing” with a pick mattock. Cut the main root 2–4 in. below the ground level and remove the plant from the area. If you clear the area carefully, regrowth should be confined to young plants not yet visible. Pile the grubbed plants and let them dry. Don’t scatter broken joints because sprouting may occur. Prevent sprouting around the piled cholla by burning the piles when dry. Grubbing during winter or drought years reduces re-infestation from scattered joints.

Mechanical Grubbing

You can mechanically uproot cholla plants by mounting a toothed fork on a front-end loader of a tractor. Slip the fork under the plant and gently lift until the cactus is uprooted. The bucket should be tilted to catch as many of the broken joints as possible. Two or three plants can be uprooted before dumping.



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Mechanical grubbing is not always successful because heavy re-infestation may occur if the tractor operator is not careful. When lifting the cholla from the soil, don't scatter the joints. Choose the best year for grubbing to allow the greatest chance for success. The cactus is more likely to dry if grubbed in December or January or in droughty summers.

Chemical Control Methods

Precautions

Follow directions on the USDA-approved labels on the container to prevent danger from chemical residue. Avoid drift to foliage of nearby susceptible crops. Do not spray when wind speed is high. Do not use the same equipment to apply insecticides on crop plants, flowers, or vegetables.

Recommended Solutions

Foliage spray. Excellent results have been obtained from a solution of one part 2,4-DP, three parts diesel oil, and 20 parts water. Kills range from 95–100%. The number of gallons of mix will vary with the density and size of the plants, but 1 gallon usually covers 14–20 plants.

A spray mixture of 16 oz of picloram (Tordon 22k), 4 oz of wetting agent, and 50 gallons of water also has given good results. Plants may not actually die for one or two years after spraying.

A combination of picloram and fluoxypyr (Surmount) mixed with wetting agent and water at a rate of 1–2 gallons of herbicide per 100 gallons of water also effectively controls cholla.

Basal treatment. Undiluted picloram² can be applied to the base of cholla near the ground line using 4–6 mL of product per 3 ft of plant height. Undiluted hexazinone (Velpar) at the same application rate will give similar control results.

Method of Application

Foliage spray. Hand application of herbicide solutions with knapsack, compression tank-type, and power sprayers is most effective for cholla control. Use a nozzle pressure of 25–35 lb for hand sprayers and 40 lb for power sprayers. A coarse spray (large droplets) is more desirable than mist-like fogs for covering cholla. Wet the plant thoroughly on all sides, joints, base, and trunk to the point of slight runoff for effective kill.

In dense stands, power sprayers have some added advantages over hand-sprayers: They can be pulled or

carried by a truck or tractor, refilling the sprayer is not required as often, and several operators can work from one tank by attaching additional lead hoses and nozzles.

Power sprayers work well if the infested area is relatively smooth and not brushy. Hand-type sprayers can be used in any terrain and are often used to supplement power sprayers.

Basal treatment. Undiluted herbicide should be applied with a metered hand gun set to deliver 4–6 mL of product at the junction of the main stem near the ground surface. Precipitation helps move the herbicide through the soil to the roots, and cholla are very slow to show effects (2–3 years).

Time of Application

Apply spray solutions to cholla as soon as new growth becomes visible in May, and when temperatures are about 60°F. Plants in bloom are preferred for treatment. Allow two growing seasons for evaluation.

Management Following Control

Follow cholla control with good range management. Cholla control may not mean increased livestock numbers in the future, only an increase in usable forage supply for the livestock on hand. Don't expect large forage increases, but livestock handling should be easier.

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Kert Young is an Extension Rangeland Brush and Weed Specialist at NMSU. He has experience controlling invasive plants with mechanical, chemical, cultural, and other techniques. His Extension and research work helps the people of New Mexico understand how to manage invasive plants and repair damaged range and pasture lands, and benefits land condition, productivity, sustainability, and profitability for an improved quality of life for New Mexicans.

²Use of picloram is restricted. Ask your county Extension agent (<http://aces.nmsu.edu/county/>) for information on current regulations.