



LIVE FENCES

A GUIDE TO CREATING AND MAINTAINING LIVE FENCES

DISADVANTAGE OF LIVE FENCES

They need regular maintenance. Because of their shallow roots, trees grown from cuttings are more prone to blow over than trees grown from seeds. Fortunately, pruning can alleviate this.

PROPERTY LINE RESPONSIBILITY

There is a traditional 50/50 division of responsibility for live fences on a property line. It is each owner's responsibility to maintain their part of the live fence, including pruning the fence bi-annually and planting new cuttings to replace bad posts. New property owners should discuss the division with their neighbors and record it on a map. Where cattle are concerned, a property owner is financially responsible for damage that his cattle causes in a neighboring property as a result of not maintaining his part of the live fence.

This eco-guide is a living document. If there are any errors, comments or clarifications to this info please contact Azuero Earth Project in person, by email, or phone:

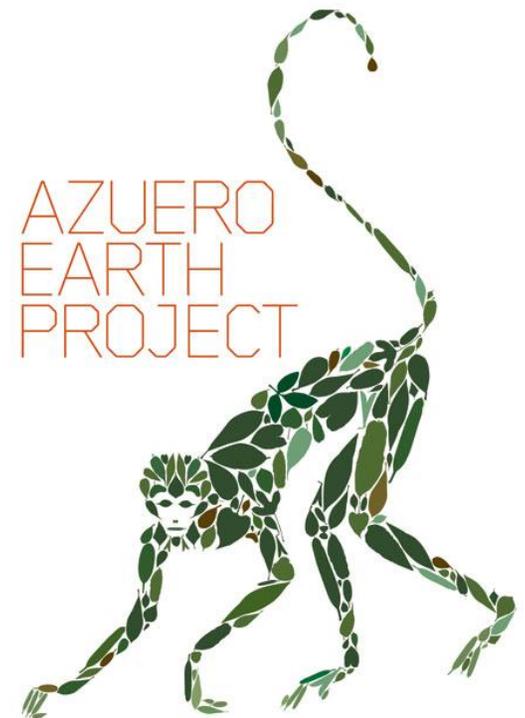
info@proecoazuero.org

(507) 995-2995

Authors: Megan Corbett-Thompson, Megan Zimba, Leo Mena

Collaborators: Jairo Batista, Silverio Jiménez, Vernon Scholey

Follow us on Facebook, Twitter and Instagram @proecoazuero



A live fence is composed of living tree cuttings (called *madrocas* or *estacas* in Spanish) that are planted and maintained as fence posts. They are connected with barbed wire and serve the same purpose as a conventional fence.

WHY PLANT A LIVE FENCE?

1. To save money

- ▶ Live posts last a very long time.
- ▶ Each post generates branches which can be cut and planted to create new live posts.
- ▶ Some live post species can produce fodder, fruit, timber, and/or firewood.

2. To conserve nature

- ▶ Diverse tree species attract birds, butterflies, and monkeys.
- ▶ Live posts reduce the need to cut down trees for dead posts.

3. To increase soil quality

- ▶ Some live fence species are nitrogen fixing: they increase the availability of nitrogen in the soil.

4. To reduce erosion

- ▶ Live fences protect soil and water quality from erosion, especially when planted on slopes.

5. To offer protection

- ▶ Shade for cattle reduces heat stress and can result in higher weight gain, greater milk production, and higher rates of reproduction.
- ▶ Live fences protect crops and cattle.

HOW TO PLANT A LIVE FENCE

A typical live fence uses a combination of cuttings, large trees, and dead wood posts for fence corners, gates, and support. Refer to the **tree database on the AEP website** for more information.

1. During the dry season (January-April) collect healthy cuttings from the live fence or from trees. About 575 live posts and 60 dead posts are required for 1 km of fence.

- ▶ Cut the living post branch neatly with a machete. Make sure to cut the branch at its base or right above the circular head on a living post. Harvest cuttings that have a minimum height of 2.0-2.5 m and a thickness of 5-15 cm. Cut the bottom flat.
- ▶ Remove side branches and cut the top on a diagonal to avoid decay from rainwater.
- ▶ Store cuttings upright in the shade (they can be stored for many months).

2. Plant live fence posts every 1 or 2 meters about 20 cm in the ground.

3. Plant dead posts where necessary at least 30cm deep into the ground.

- ▶ Select dead posts from trees that do not rot and have been harvested sustainably (beware of posts taken from Cerro Hoya or other protected forests).

4. Attach barbed wire

- I. Wrap barbed wire around a large tree or sturdy post and tie a knot.
- II. Stretch the barbed wire to the next large, sturdy post. Tighten the barbed wire with pliers, pulling it so the wire is tight and does not vibrate when touched.
- III. Attach a staple to the taught barbed wire using a hammer. Drive the staple far into the post.
- IV. Using your judgment, hammer staples into other posts so that the wire line looks tight. Repeat this process until you reach a corner. Staple the post and cut the barbed wire leaving enough of it to tie a knot.
- V. Repeat steps I-IV to make other barbed wire fence lines. Usually people have 3-4 lines of barbed wire.

5. Maintenance: To prevent live fences from tipping and at the same time to harvest cuttings it is necessary to prune the live fence.

- ▶ There is no definitive rule on how often to prune to keep posts from tipping over, but pruning the fence every other year is a good rule of thumb.
- ▶ Prune the live fence during the dry season.
- ▶ While pruning the live fence plant the harvested cuttings to replace older, worn out live fence posts. The cuttings will root and propagate during the dry season and produce new branches when it starts to rain.