

Individual tree protection in wild or farm ungulates' habitats: Effectiveness of the "Cactus Tree Guard"®, 9 countries, 14 years

Charles Lienard¹, Tim Nicholson², Francisco Romero³, Antonio Tarruella⁴

¹Protecteur Cactus CLA SAS (France) charles@protecteurcactus.fr, ²Cactus Tree Guards Ltd (The U.K.), ³Protector Cactus SL (Spain), ⁴Administraciones Rurales (Spain)

Highlights : summary of the main findings

- Based on 150 French farmers' feedback: 99,99% tree protection achieved, 0,01% trees browsed, trampled or eaten by ungulates (including farm animals, wild animals and horses);
- Growth of a clear bole using natural thorns planted at an angle, within the Cactus tree guard®;
- Bird species (incl. endangered) nest under the protection of the Cactus tree guard®.

The challenge of planting trees among ungulates

Ensuring the survival of saplings within active rangelands presents a challenge. In many reforestation programs, damage is primarily driven by trampling, bark stripping (rubbing of antlers/horns), and browsing by livestock and wild ungulates. While electric fencing is a traditional deterrent, it is not universally viable, as it demands intensive maintenance and constant vegetation management (mowing). Since 2012, the Cactus Tree Guard® has undergone rigorous field testing by more than 5000 farmers across diverse ecosystems—from the Iberian *Dehesas* and English uplands to the semi-arid valleys of California and the Zimbabwean bush. Farmers and National Park authorities have successfully deployed these biomimetic guards to regenerate silvo-pastoral systems. These installations serve a dual purpose: protecting the trees from all ungulates 'great and small' while fostering long-term benefits such as improved livestock thermoregulation, supplemental forage, and enhanced local biodiversity.

Objectives

The primary objective was to evaluate the efficacy and determine the success rate of an innovative, autonomous individual tree protection system. This report about experiences of practitioners, assesses its performance in mitigating damage—specifically browsing, bark stripping, and trampling—caused by high-density populations of domestic and wild ungulates.

Methodology

Farmers and forestry managers have used the Cactus tree guard®. In 8 countries, over 14 years, approximately 2 million of trees in pastures, were planted, or regenerated, and protected by 1.7 million Cactus tree guards® : a 1,6m galvanised steel mesh forming a cylinder of 32cm in diameter, covered with hundreds of thorns. Guards can be installed in different ways creating different diameters and heights. More trees were protected than Cactus tree guards® used as this protection can be used several times during its long life. The Cactus tree guards® were used in the following countries: Spain, Portugal, Benelux, the UK, Ireland, California, New Zealand, Zimbabwe, France. This report is based on the feedback from more than 150 French farmers who tested 11.907 Cactus tree guards® for a period of over 23 months. Three wooden poles or three rebars (150cm long, 10mm) were planted within the Cactus® shaped cylinder using a rod hammer. The Cactus tree guard® has been lifted 10/40 cm from the ground (fig 2&3) and firmly attached to the poles using galvanized staples twisted using the Easytied® device fitted onto an electric screwdriver (fig1). One person can install between 35 and 55 Cactus tree guards® per day.



Figure 1 : Easytied® twisting a staple on a 10mm rebar and a cactus tree guard®. Fig 2-3 : trees protected by a cactus®.

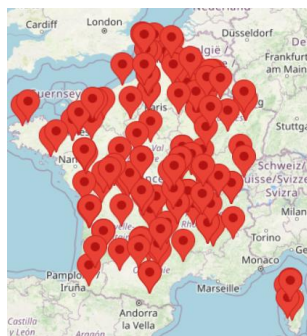


Figure 4 : Map of the location where the tests were performed by the farmers in France between March 2024 and February 2026. Fig 5&6: “Longhorn” cows, calf and bull (*Bos taurus*)

Results

Data from all countries—including a 23-month trial in France —indicate 99,99% plant protection, with independent farmers reporting that damage from ungulates was eliminated. In each testing region, livestock and wildlife showed a consistent response to the mechanical design of the Cactus Tree Guard© and its integrated thorns. Farmers noted that animals typically avoided the spikes without sustaining injuries, preventing instances of browsing, trampling, or bark stripping. This result was observed regardless of location, climate, or herd density, across a wide range of breeds: from Angus in California and Longhorns in the UK, to sheep, goats, wild boar and pigs in Continental Europe , and the *Syncerus caffer* in Zimbabwe. The system remained effective against diverse sizes of livestock, including the Bretonne Pie Noir and the Holstein, which can reach heights of 2.1 meters. As trees matured, the guards were moved upward along their supporting poles—a maintenance process performed 3 to 5 years post-planting using the Easytied© tool. In English silvo-pastures, the implementation included planting auxiliary thorny shrubs at an angle to develop a natural barrier. Within the guard, which mimics a thorny thicket, the thorny bushes encouraged vertical growth in young oaks. After five years, these oaks exhibited straight, clear boles. Ecological observations included also the arrival of endangered *Lanius collurio* , which utilized the habitat for nesting and resting. Alongside other small birds, they found refuge within the thorns, providing shielding from both aerial and terrestrial predators.



Figure 7 & 8 : “Lacaunes” sheep (*Ovis aries*) Brittany (FR) ; “Cerdo iberico” (*Sus Scrofa domestica*) in El Romo (SP). Fig 9 : the thorns.



Figure 10 & 11 : Shrikes (*Lanius collurio*), Indre (FR) July 2025. Figure 12 : chicks protected by Cactus tree guard©.

Keywords

Agroforestry, tree protection, biodiversity, animal.

Bibliography

Independent farmers and forestry managers usage since 2012 in Spain, Portugal, since 2020 in the UK, since 2024 in Benelux & France, since 2026 in New-Zeeland and California.

French farmers trials and usage between march 2024 and April 2026: feedbacks from 150 practitioners.