

T H O R N A D O TM

ROLL. COLLECT. DISPOSE.

FIELD GUIDE & CONTROL MANUAL



getthornado.com

By Tech UltivateTM,
A Qualitora LLC brand, Albuquerque, New Mexico, USA

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WHAT'S IN THE BOX

THE THORNADO SYSTEM ✓ 3-Piece Steel Handle ✓ 1× Foam Roller Head	REPLACEMENT SUPPLIES ✓ 3× Replacement Foam Sleeves ✓ 50× Mesh Collection Sleeves
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Bonus : Goat Head Control Calendar

Welcome to THORNADO

You are now equipped with a complete puncturevine control system, not just a roller. This manual covers assembly, field technique, disposal, maintenance, and seasonal strategy. Most people are rolling in under 5 minutes.

WATCH THE SETUP VIDEO



Setup & usage walkthrough

getthornado.com/setup

Assembly · Loading · Rolling · Disposal

Tribulus terrestris, The Plant That Wins By Waiting

WHAT IS IT?

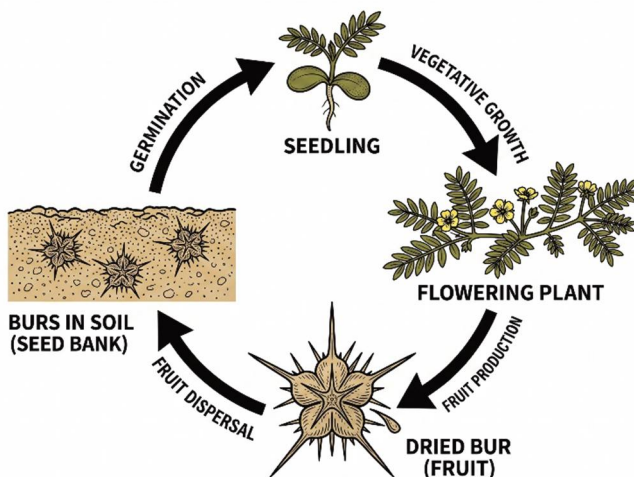
Tribulus terrestris, known regionally as goat heads, puncturevine, caltrop, devil's thorn, or bindii, is a low-growing annual weed found across arid and semi-arid zones worldwide. It thrives in disturbed, dry soils: roadsides, gravel paths, sandy lots, dry yards.

WHERE DOES IT GROW?

Every continent except Antarctica. If you have dry, open ground, you likely share it with *Tribulus*, or the conditions for it.

THE PROBLEM ISN'T THE PLANT. IT'S THE SEED.

Each plant produces dozens of hard, spiky seed burs, the capsules that puncture tires, embed in paws, and end barefoot ambitions. Once dry and fallen, a single bur can remain viable in the soil for **up to 5 years**.



→ See the Seasonal Strategy (below) and your **Goat Head Control Calendar** magnet for regional timing.

WHY ONE CLEANUP IS NOT ENOUGH

- Mowing spreads mature burs rather than eliminating them.
- Soil-stored seeds germinate the following season, and several seasons after.
- Only consistent collection before reseeding can progressively reduce future outbreaks.

THIS IS EXACTLY WHY THORNADO EXISTS.

Collect surface burs systematically. Interrupt the seed cycle. Season after season.



Tribulus terrestris seedling



Tribulus terrestris flowering plant

SEASONAL CONTROL STRATEGY

Long-term control requires a repeated seasonal approach.
Your Goat Head Control Calendar (included refrigerator magnet)
maps the key action windows:

01 EARLY SEASON

Typically spring

Monitor for emerging growth.
Pull young plants before flowering.
Prevents bur production entirely.



02 ACTIVE GROWTH

Typically late spring – summer

Remove plants before seeds form.
Begin rolling.
THORNADO is most effective during active bur development.



03 BUR COLLECTION

Typically summer – early fall

Main rolling season.
Systematically collect mature burs before they dry, detach, and reseed.



04 MAINTENANCE

Late season & off-season

Spot-roll remaining areas.
Remove late plants.
Prepare supply kit for next season.



CONSISTENCY IS KEY.

Following these seasonal windows year after year interrupts the life cycle and reduces future infestations.



Use your Goat Head Control Calendar magnet to stay on track all year.



ROLL. COLLECT. DISPOSE. REPEAT.

PROTECT WHAT MATTERS.

Timing varies by region, altitude, temperature, and rainfall. Use the calendar as a guide, not a strict schedule.
Region-specific tips: getthornado.com/magnet

UNDERSTANDING THE GOAT HEAD LIFE CYCLE

Removing burs is only one part of long-term control.



Goat Heads (*Tribulus terrestris*) reproduce by producing thousands of hard, spiny seed burs. Even after visible burs are removed, dormant seeds may remain in the soil for up to 5 years.

Successful long-term control requires:

- ✓ Removing young plants
- ✓ Collecting mature burs
- ✓ Preventing new seed production
- ✓ Repeating the process season after season

THORNADO WORKS HERE

Collects surface burs so fewer are left on the ground to spread.

THE 5 BIGGEST MISTAKES

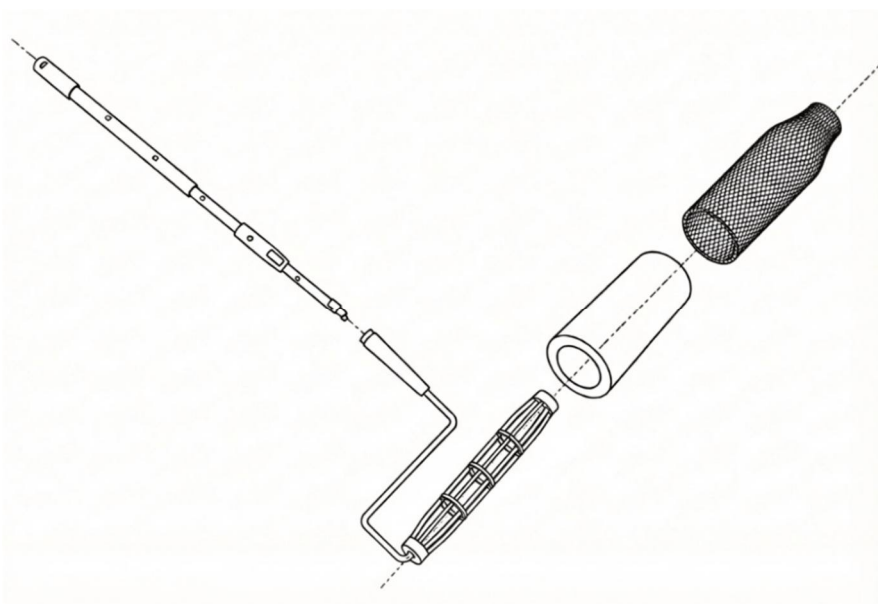
AVOID THESE COMMON MISTAKES :

1. Rolling only once
Regular collection helps more over the long term.
2. Waiting until the end of the season
Early collection helps reduce reseeding.
3. Ignoring nearby plants
Living plants continue producing new burs.
4. Using damaged mesh sleeves
Replace sleeves when worn.
5. Disposing burs loosely
Always seal collected burs before disposal..

THORNADO is a complete goat head and puncturevine bur collection system designed for fast, repeatable outdoor cleanup. The system combines:

- a lightweight rolling tool,
- replaceable mesh collection sleeves,
- and a seasonal control strategy designed to help reduce reseeding over time.

Unlike traditional rakes or manual collection methods, THORNADO is engineered to efficiently collect surface burs while minimizing direct handling. Use regularly during active bur season for steadier results over time.



Your THORNADO handle consists of 3 separate steel sections that screw together. No tools required.

IMPORTANT

- ▲ Fully tighten all three connections before each use.
- ▲ If a connection loosens during use, stop and re-tighten immediately.
- ▲ Keep threaded areas clean and dry for smooth long-term performance.

ASSEMBLE THE HANDLE

3 SECTIONS. TWIST. LOCK. READY.

1 LAY OUT THE 3 SECTIONS Identify the three handle sections.  TOP SECTION MIDDLE SECTION BOTTOM SECTION	2 CONNECT TOP TO MIDDLE Insert the Top Section into the Middle Section and twist clockwise until tight. 	3 CONNECT MIDDLE TO BOTTOM Insert the Middle Section into the Bottom Section and twist clockwise until tight. 	4 FULLY ASSEMBLED HANDLE Ensure all connections are tight and secure before use.  Handle is ready to use. 
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STRONG. SECURE. BUILT TO ROLL. TIGHTEN EACH CONNECTION FIRMLY.

ATTACHING THE ROLLER HEAD TO THE HANDLE

INSERT

Push the handle straight into the roller head socket until fully seated.



TWIST TO LOCK

Rotate the handle clockwise to engage the threads and tighten securely.



SECURE & READY

Ensure the connection is tight and secure before use.



STEP 2

LOAD YOUR MESH SLEEVE

Before rolling, slide a green mesh collection sleeve onto the foam roller. The sleeve is what collects, and safely traps, the thorns.

LOADING THE MESH SLEEVE

1

Take one green mesh sleeve from the pack.

50 sleeves are included. Refills at getthornado.com/refill

2

Stretch the sleeve opening over one end of the foam roller.

Start from one tip and work toward the other end.

3

Pull sleeve evenly to cover the entire foam surface.

Sleeve must be smooth and taut, no bunching, folds, or gaps.



YOU'RE READY.

Green mesh sleeve fully covering the roller. Chrome arm locked into handle. You're 30 seconds away from your first pass.

BEFORE FIRST USE :



Wear shoes



Wear gloves



Keep children away



Inspect handle connections



Use only outdoors



Dispose sleeves safely

1

Start at one edge of your target area.

Work systematically, treat it like mowing a lawn.

2

Apply moderate downward pressure.

Push the roller forward in a straight line. Full foam-to-ground contact is essential.

3

Overlap each pass by 2–3 inches (5-8 cm).

No gaps. Every inch counts during peak bur season.

4

Work in parallel rows across the full area.

Steady, overlapping passes give even coverage.

PRO TIPS, ARID TERRAIN

- Dry ground is optimal. THORNADO performs best on dry, loose soil and gravel. Avoid rolling on wet or muddy surfaces. Thorn adhesion is significantly reduced.
- Focus on the heaviest concentrations first, then expand to full-area sweeping.
- On compacted gravel, apply slightly more downward pressure for better foam contact.
- Roll after mowing. Mowing scatters burs across the area.

ROLLING PATTERN

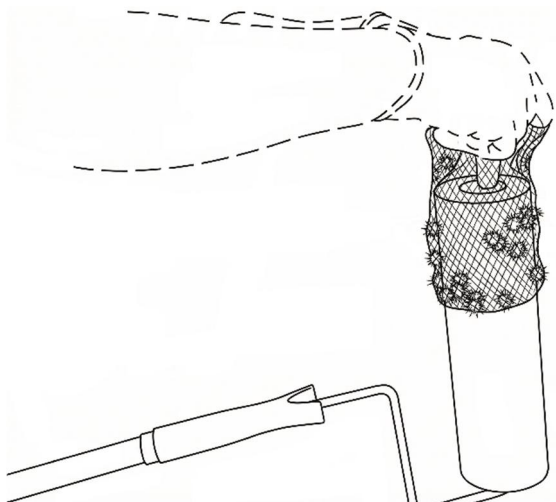
SLOW PASSES.
OVERLAP FOR BEST RESULTS.



WHEN TO CHANGE YOUR MESH SLEEVE

Replace the mesh sleeve when it looks visually full, when rolling efficiency feels reduced, or after covering a large area. A fresh sleeve collects more readily. Do not push a saturated one. → **Proceed to Step 4 to dispose of the used sleeve.**

This is the part where THORNADO earns its name.



1

Detach the roller head from the handle.

Pull the chrome support arm straight out.

2

Hold roller head directly over a trash bag.

Position it above the opening before proceeding.

3

Peel the mesh sleeve inside-out from end to end.

Like removing a sock. Thorns remain trapped inside as the sleeve inverts.

4

Drop inverted sleeve into bag. Seal and dispose.

Standard household waste. Do not burn.

No shaking. No scraping. No thorn contact.

The mesh sleeve inversion system is designed to help minimize direct contact with collected thorns during disposal. Always exercise appropriate caution.

AFTER DISPOSAL

- Foam roller is clean and ready for a new mesh sleeve.
- Load a fresh sleeve (refer to Step 2) and continue rolling.

REFERENCE

MAINTENANCE & CARE

REPLACING THE FOAM ROLLER SLEEVE

Your kit includes replacement foam sleeves. Replace the foam roller sleeve when:

- The foam shows visible deformation and no longer returns to its original shape.
- It fails to maintain adequate ground contact during rolling.
- It has been in service for a full extended season.

1

Slide the old foam sleeve off the roller frame.

From the open end of the roller axis.

2

Slide new foam sleeve on and confirm even seating.

Must sit flush and uniform on the frame.

Refill packs available at getthornado.com/refill

CLEANING

HANDLE

Wipe with dry cloth. Lightly damp cloth for stubborn dirt. Do not submerge. Dry fully before storage.

ROLLER HEAD

Wipe chrome arm with dry cloth. Inspect connection threads periodically for debris or wear.

▲ Do not use abrasive cleaners, solvents, or pressurized water on any component.

OFF-SEASON STORAGE

- Disassemble handle into 3 sections for compact storage.
- Store indoors, dry, away from prolonged direct sunlight.
- Foam degrades faster under sustained UV. Store in a bag or closed box.
- Keep remaining mesh sleeves in a sealed bag to prevent dust accumulation.

REFILLS & RESOURCES



Setup video
gethornado.com/setup



Order refills
gethornado.com/refill

READ ALL WARNINGS BEFORE USE. RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE.

Failure to follow the warnings, assembly instructions, maintenance recommendations, and safe operating procedures contained in this manual may result in injury, property damage, reduced product performance, or product failure.

INTENDED USE

THORNADO is intended solely for the collection of loose surface burs and thorn debris from outdoor residential and light commercial ground surfaces.

INTENDED USER

This product is intended for use by responsible adults capable of safely operating a manual rolling tool in outdoor environments.

This product is not intended for:

- children,
- persons with reduced physical mobility or impaired balance,
- use as an agricultural machine,
- industrial land-clearing operations,
- use on public roadways,
- use on roofs, ladders, elevated surfaces, or unstable terrain.

PERSONAL PROTECTION

- ▲ Always wear closed-toe footwear when working in thorn-infested areas.
- ▲ Wear protective gloves when handling mesh sleeves containing embedded thorns, particularly during loading and disposal.
- ▲ Eye protection is recommended during use and mesh sleeve removal, thorns may become dislodged unexpectedly.
- ▲ Some users may experience skin irritation when handling thorn-infested plant material. Wear gloves and wash hands after use.

PRODUCT INSPECTION & ASSEMBLY

- ▲ Inspect all handle sections and components before each use. Do not use if any section is cracked, bent, corroded, or damaged.
- ▲ Ensure all three handle sections are fully and firmly tightened before use. Improper assembly may result in handle separation during operation.
- ▲ Do not use the handle as a lever, climbing aid, striking tool, or for any purpose other than its intended rolling function.
- ▲ Do not modify, alter, or attempt to repair any component. Unauthorized modifications void all warranties and may create safety hazards.

SAFE USE

- ▲ Designed for use on dry, stable outdoor terrain. Do not use on wet, icy, muddy, or unstable surfaces.
- ▲ Maintain stable footing at all times during operation. Be aware of uneven ground.
- ▲ Do not use near energized overhead power lines, open trenches, or areas with buried utilities.
- ▲ Keep bystanders clear of the work area during use.
- ▲ In hot weather, take regular breaks, stay hydrated, and avoid prolonged exposure to direct sun.
- ▲ Do not overreach while using the product. Maintain proper posture and balance during operation. Repetitive motions or improper use may cause muscle strain, fatigue, or loss of balance.
- ▲ Collected burs, stones, sticks, or debris may become dislodged unexpectedly during use, transport, cleaning, or sleeve removal.
- ▲ Users with known plant allergies, skin sensitivities, or respiratory sensitivities should use appropriate personal protective equipment when handling thorn-infested material.
- ▲ Keep the work area clear of obstacles, hoses, tools, rocks, and debris that may create slip, trip, or fall hazards.
- ▲ A loaded mesh sleeve may contain sharp burs capable of puncturing skin or lightweight materials. Handle used sleeves carefully during transport and disposal.

CHILDREN & PETS

- ▲ **WARNING — CHOKING HAZARD:** Mesh sleeves and foam components are small parts. Keep all components out of reach of children under 3 years of age.
- ▲ This product is not a toy. Do not allow children to operate it. Adult supervision is required at all times if a minor is present in the work area.
- ▲ Used mesh sleeves containing embedded thorns must be securely bagged and disposed of immediately — kept away from children and pets at all times.
- ▲ **THORNADO** helps reduce surface thorn hazards but cannot guarantee the safety of pets, livestock, bicycle tires, vehicle tires, footwear, or other property. Users should continue to inspect outdoor areas regularly.

DISPOSAL

- ▲ **DO NOT BURN** mesh sleeves, foam sleeves, or any component of this product. Combustion of synthetic materials may release toxic or irritating fumes.
- ▲ Dispose of filled mesh sleeves in a sealed bag as regular household waste.
- ▲ Check local regulations regarding the disposal of *Tribulus terrestris* plant material. In some jurisdictions, invasive plant material may be subject to specific disposal requirements.

PRODUCT LIMITATIONS

THORNADO is designed to help reduce the surface accumulation of *Tribulus terrestris* burs. The following limitations apply:

- ▲ THORNADO helps reduce exposure to thorn debris but does not guarantee prevention of puncture injuries, tire damage, slips, falls, or other outdoor hazards.
- ▲ Information provided in this manual is for general guidance only and does not constitute professional agricultural, landscaping, or environmental advice.
- ▲ Effectiveness varies based on infestation density, surface type, soil conditions, terrain profile, and frequency of use. Outdoor conditions, invasive plant behavior, and terrain characteristics vary significantly by region and climate.
- ▲ This product collects surface burs only. It does not eliminate seeds dormant in the soil. *Tribulus terrestris* seeds may remain viable in the soil for up to 5 years. Long-term control requires repeated seasonal use.
- ▲ THORNADO is not effective on all surface types, including very deep loose gravel, soft sand, or heavily vegetated surfaces.
- ▲ THORNADO makes no claim of, and does not guarantee, complete eradication of *Tribulus terrestris*, its seeds, or any other plant species.
- ▲ No outdoor area can be considered completely thorn-free. Users should continue to exercise caution when walking, working, or allowing children and pets to access treated areas.
- ▲ Discontinue use immediately if any component becomes damaged, loose, bent, cracked, excessively worn, or otherwise unsafe for continued operation.

WARRANTY & LEGAL NOTICES

LIMITED WARRANTY - UNITED STATES

Qualitora LLC warrants the THORNADO handle and roller head against defects in materials and workmanship for one (1) year from the date of original purchase. This warranty does not cover consumable components (mesh sleeves, foam sleeves), normal wear and tear, cosmetic damage, damage caused by misuse or accident, unauthorized modification, neglect, or failure to follow the instructions provided.

To obtain warranty service, contact: contact@getthornado.com with proof of purchase.

DISCLAIMER OF IMPLIED WARRANTIES

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, QUALITORA LLC EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. WHERE SUCH WARRANTIES CANNOT BE LEGALLY DISCLAIMED, THEY ARE LIMITED IN DURATION TO THE EXPRESS WARRANTY PERIOD STATED ABOVE.

LIMITATION OF LIABILITY

IN NO EVENT SHALL QUALITORA LLC, ITS OFFICERS, DIRECTORS, EMPLOYEES, OR AGENTS BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL, OR PUNITIVE DAMAGES OF ANY KIND ARISING FROM OR RELATED TO THE USE OR INABILITY TO USE THIS PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. QUALITORA LLC'S TOTAL LIABILITY TO ANY PARTY SHALL IN NO EVENT EXCEED THE ORIGINAL PURCHASE PRICE OF THE PRODUCT.

GOVERNING LAW

This product is marketed and distributed by Qualitora LLC, a limited liability company registered in the State of New Mexico, USA. Any disputes arising from the purchase or use of this product shall be governed exclusively by the laws of the State of New Mexico, USA, without regard to its conflict of law provisions.

CALIFORNIA PROPOSITION 65 NOTICE

WARNING: This product may expose you to chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. For more information, visit www.P65Warnings.ca.gov.

NOTICE FOR AUSTRALIAN PURCHASERS - AUSTRALIAN CONSUMER LAW

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

In addition to your rights under the Australian Consumer Law, Qualitora LLC provides the Limited Warranty described above. The benefits provided by this warranty are in addition to, and do not limit, your statutory rights under the Australian Consumer Law.

For warranty claims or product support in Australia: contact@getthornado.com

For information about the Australian Consumer Law, visit: accc.gov.au

THORNADO

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Personal notes

Track every pass. Consistency across seasons is what breaks the goat head seed cycle, not any single cleanup.

Season goal:

TREATMENT LOG

Date	Area treated	Sleeves	Density	Next pass

Density: L = light · M = moderate · H = heavy infestation

NOTES

THORNADO™

ROLL. COLLECT. DISPOSE.

Register your tool. Unlock your free Goat Head Control Calendar.

Scan to register your THORNADO and download the regional calendar that tells you exactly when to roll — season after season.



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