

# Thrush Off Is The Natural Choice In Our Trials

*It was the only botanical-ingredient product that worked on severe thrush.*

**T**hrush is a common pain-in-the-neck ailment. It'll normally respond rapidly to correct treatment (the classic "squirt and done" routine rarely works) and, like everything else, it's best if you catch it early.

Pick your horse's feet daily, and watch for the initial signs of thrush (see box right). It's best to eliminate thrush in its early stages, before the infection can invade deeper tissues or between the heel bulbs. Once it's set-in, it's more difficult to treat and can even make your horse lame.

**BACTERIA, NOT FUNGUS.** Thrush is a mixed bacterial infection in the grooves along the side of the frog, in the central cleft of the frog and/or in the crease between the heel bulbs. It usually involves the organism *Spherophorus necrophorus* (aka *Fusobacterium necrophorus*).

It is an anaerobic organism, which means it requires a low-oxygen environment to grow. Although this organism is capable of invading skin, it usually requires other bacteria to do so effectively. Exactly

how this works isn't completely understood, but one theory is the other bacteria will keep the oxygen level low enough for *S. necrophorus* to survive.

## KNOW THE SYMPTOMS

Thrush is nearly impossible to miss: a black, tar-like material with a characteristic foul odor in the clefts of the frog. You'll see it when you pick out your horse's hoof.

With superficial cases, the horse will not be lame or sensitive to pressure from the hoof pick. However, if the infection erodes the protective upper layers and gets close to sensitive tissues, or if the infection takes hold in the heel clefts, the horse can become lame.

Left untreated (or poorly treated), the infection causes poor frog growth. The frog gets mushy and has a ragged look. Eventually, you could encounter serious frog problems.

are too long also predispose to thrush because the grooves become very deep and the hoof does not self-clean efficiently. Finally, injury to the tissues from embedded stones or other materials will break through the normal barriers and allow bacteria easy access.

## HOOF PREPARATION.

First, thoroughly clean out the black material. Pick out the foot, then use a stiff brush to remove all the debris until it's clean. You can wash it out, too, but be certain that you rinse thoroughly (see 'Warning' right) and dry the hoof.

Once the foot has been cleaned and thoroughly



*Severe cases of thrush, above, responded well to Thrush Off.*



dried, apply your treatment. Packing the sides of the frog with cotton soaked in the product and pushed firmly into place with a hoof pick will give prolonged treatment.

Note: Before any product can help, it must be able to get to the organisms. If there are overhanging flaps of the frog, get your farrier out to trim that back or, if you're comfortable doing so, cut them off yourself. He or she also may be able to trim away a lot of the affected tissue, making your job easier and offering a faster recovery rate.

**OUR TRIAL.** This is a two-part field trial. In this first section, we're focusing on botanical ingredients (botanical/natural ingredients only or mixed chemical and botanical). Next month, we'll discuss the heavy guns: chemical and pharmaceutical treatments. (Note: You'll also see thrush discussed in the near future when we look at products that are designed to eliminate hoof or skin infections.)

In this trial, we define mild thrush as the obvious black discharge and odor but no lameness or pain on picking the feet and no deep-tissue layer invasions. Moderate thrush is defined as pain on picking the feet or manipulation of the tissues of the heel. Severe thrush is severe pain with obvious involvement of the deep tissues, e.g. tissue with deep cracks or, sometimes, bleeding.

## WARNING: DON'T MIX PRODUCTS

If you use soap or shampoo to clean the foot, be sure to rinse thoroughly and dry the foot completely before using a thrush product. Some ingredients can be inactivated by contact with water or soaps.

Never combine different treatments or rinse with peroxide before applying a thrush remedy. Dangerous chemical interactions may occur.

## Consider This . . .

- Thrush in the equine foot is a mixed bacterial infection, not a fungus like in human thrush.
- Your horse can become lame. The longer thrush goes untreated, the deeper the bacteria goes.
- Dirty stalls don't actually cause thrush. They just set up a really nice playing field for its development.
- The bacteria that causes thrush can spread from horse to horse, and it can even live in the ground and re-infect your horse.



**Solution 4 Feet and Huuf Magic are both top picks for mild or moderate thrush, but Huuf Magic is half the price.**

If you're determined to avoid chemicals (unless absolutely necessary, of course), Kiss A Frog and Thrush Off were the only products free of chemical ingredients in both their base and active ingredients. Also, all the ingredients in HoofSeptic are easily biodegraded and harmless to the environment.

However, we must caution you that "chemical" doesn't necessarily mean more harsh or less environmentally

safe. For the antimicrobial compounds in botanicals to be effective, they have to be isolated and in a concentrated form. Many concentrated essential oils are highly irritating to skin, eyes and the respiratory tract. Their environmental effects are unknown, but they can't be assumed to be zero. There are also botanically based products with potentially hazardous carriers. Read all product labels.

**BOTTOM LINE.** The key to treating thrush is diligence. Stay on top of it, follow instructions, and keep the hoof clean and dry. Apply the



**The ingredients in HoofSeptic are easily biodegraded and harmless to the environment.**

gentlest topical that will be effective against the degree of severity.

All the products in this trial were effective for mild thrush. The most effective products for mild-to-moderate thrush were Huuf Magic and Solution4Feet. However, our top choice and Best Buy is Huuf Magic. It's about half the cost and its ingredients are made known to you.

For severe thrush, there's only one choice: Thrush Off. It's the only product free of potential sensitivity problems when used on raw, open tissues, and it's effective. 🐾

Article by Veterinary Editor Eleanor Kellon, VMD.

## Botanical-Ingredient Thrush Products

✓ Horse Journal Editor's Choice    \$ Horse Journal Best Buy

PRODUCT	INGREDIENTS/WARNINGS	COMMENTS
Hoof Septic Uckele Health & Nutrition 800-248-0330 www.uckele.com \$19.95/16 oz.; \$1.25/oz.	Propionic acid, ammonia, propylene glycol, orange oil, aloe extract, oil of wintergreen, camphor, clove oil. Possibility of skin sensitivity.	Tea-colored thin liquid with a pleasant scent, hint of orange. Oily texture from the propylene glycol. Biodegradable. Nontoxic and gentle to the tissues. Effective for up to moderate cases but takes longer to work than the chemical products.
✓ \$ Huuf Magic Healing Tree www.healing-tree.com 800-421-6223 \$18.70/16 oz.; \$1.17/oz.	Benzalkonium chloride, tea tree oil, Jojoba oil in a base of water and emulsifiers. Possibility of skin sensitivity.	White liquid with tea-tree scent and flip-top bottle. Thin, penetrates well. Very effective with mild-to-moderate thrush. Caused some irritation in a horse with a severe infection between his heel bulbs. Use twice a day or as directed by vet.
Keratex Frog Disinfectant Keratex Equine Hoofcare 888-537-2839 www.keratex.net \$13.50/50 ml; \$7.50/oz.	Acetone and tea tree oil. Caution: Flammable. Irritant. Explosion potential if used with hydrogen peroxide. Possibility of skin sensitivity.	Characteristic aromas of acetone and tea-tree oil. Acetone is a drying agent, tea-tree oil disinfects. Product flows easily to penetrate the deepest tracks. Highly effective but may irritate exposed live tissues. Apply daily after cleaning.
Kiss a Frog Equi-Spa 515-770-3517 www.equispa.com \$16/16 oz.; \$1/oz.	Witch hazel base with essential oils, tea tree, lavender, Ylang-Ylang, rosemary, chamomile and citronella. Trigger-spray bottle. Possibility of skin sensitivity.	Thin liquid with a pleasant herbal aroma. Very gentle, will not dry tissues. Effective for mild cases of thrush but may take longer than other products. Easy to use preventative for horses prone to this problem.
MycAseptic Neogen Corp 800-477-8201 www.neogen.com \$10.25/15.3 oz.; 67¢/oz.	Plant terpenes limonene and b-ionone. Caution: Flammable. May irritate skin.	Pale yellow liquid with strong citrus odor. Plastic bottle with trigger sprayer. Biodegradable. Pleasant aroma. Drying. Effective for mild thrush. Takes longer to work than other products.
Solution4Feet EquiLife/Emerald Valley Botanical 888-638-8262 www.emeraldvalleyequine.com \$39.95/500 mL; \$2.27/oz.	Proprietary blend of botanicals and disinfectants in a polymer base. Eye irritant. Requires hazardous waste disposal. Possibility of skin sensitivity.	Cloudy, thin, tea-color liquid with a slightly oily feel. Pungent but pleasant aroma, similar to tea tree oil or Venice turpentine. Effective used daily or every other day for mild-to-moderate thrush. With undisclosed ingredients, we would not try this product on severe cases with exposed live (bleeding) tissue.
Thrush Magic Animal Healthcare Labs, Inc www.equineintl.com 800-250-3246 \$10.19/30 mL syringe \$9.61/oz.	Organic peroxide diacyl, dibutyl phthalate, Melaleuca alternifolia oil. Dibutyl phthalate use in human cosmetics, including nail polish, is being phased out in the U.S. because of suspected carcinogenic or endocrine disruptor dangers. Possibility of skin sensitivity.	Very thick white paste, very faint tea tree (melaleuca) scent. Convenient long-tipped syringe. Easy to place right where you want it. Does not run. Effective for up to moderate cases. Apply daily.
✓ Thrush Off Well Horse 419-295-0474 www.well-horse.com \$14.20/2 oz.; \$7.10/oz.	Concentrated plant resins from Amazonian trees, gentian violet. Caution: Will stain.	Thin blue liquid in a dropper-top bottle. Helps form a nice seal over tissues. Gentle to tissues and safe to use even on raw, open tissues. Slower to work on the infection than more caustic products but soothing to the tissues and worked even on a severe infection. Apply daily.

## Treatment And Prevention Methods

In addition to using a topical remedy for thrush, be sure to:

- Pick the feet daily and check for early thrush or rocks embedded beside the frog.
- Remove manure regularly and avoid prolonged standing in mud or muck. Remember, the organism that causes thrush likes anaerobic conditions.
- Keep frogs trimmed, and don't allow the hoof to become overgrown. Stay up-to-date with farrier visits (usually every six weeks).
- Maintain good medial/lateral balance to avoid shearing of the heel tissues.
- A mild thrush remedy can be applied weekly if your horse is somehow prone to thrush.
- Avoid using stronger remedies when they're not necessary. Many are caustic and can burn the tissues if they are overused.



**Daily inspection and cleaning of your horse's hooves is the best way to catch thrush at its onset.**