

Herbs to Support the “Lyme Horse”

By Hilary Self, B.Sc.(Hons), Holistic Horse



Turmeric

Insight into the cause of the disease and it's subsequent impact the horse's body.

- Lyme spirochete (*Borrelia burgdorferi*) bacteria enters body undetected by the horse's immune system when the tick feeds.
- The spirochete is attracted to different cells, particularly collagen, so joints, eyes, brain, skin, and heart may be damaged.
- The longer the spirochete is in the system prior to treatment the more they can adjust to the response mounted by the horse's immune system. Lyme seems to suppress the immune systems natural killer cells, which can lead to a poor immune response in the later stages of the disease.
- The spirochete constantly alters the way it presents to the immune system, to prevent detection. It can change its protective coating, take on an altered 'form' (eg Cysts), hide in different cells, become dormant and communicate with other spirochetes to help evade antibiotics and adapt to treatments.
- Due to the variety of cells invaded by the spirochete a diverse range of symptoms can be presented: Shifting lameness, low-grade fever, stiffness, irritability, and reluctance to turn, muscle tenderness, swollen joints, uveitis, and neurological problems such as ataxia, poor performance, lethargy and behavioral changes.
- Powerful antibiotics such as Doxycycline or Tetracycline are used in the acute stage on diagnosis. These antibiotics, although necessary, can further suppress the immune system and have a negative impact on the horse's organs and digestive system.

In this article I am focusing on herbs whose constituents and multiple actions can be used to help tackle the spirochete in its various locations, reduce the knock-on effects it has on the horse's physiology and help the immune system mount an effective and sustained response.

One of the difficulties when dealing with Lyme disease is the spirochetes ability to adapt and evade various treatments. **To help provide a regularly changing herb profile I recommend alternating the mix of herbs you use every 2 – 3 months.**

Western medicine has been significantly challenged by the emergence of Lyme disease, with treatments and cures for the disease proving elusive. Powerful antibiotics such as Doxycycline or Tetracycline are used in the acute stages of Lyme, but these antibiotics, although necessary, can further suppress the immune system and have a negative impact on a horse's organs and its digestive system.

Herbs, whose constituents and multiple actions can be used to help tackle the spirochete in its various locations, can reduce the knock-on effects to the horse's physiology and help the immune system mount an effective and sustained response. The following list of herbs is a starting point for a holistic treatment program.

Herbs to Fight Infection and Support the Immune System

Indian Echinacea – *Andrographis paniculate* This herb is known for its action against Gram-negative bacteria (including spirochetes). It can boost immune function while helping redress the negative effects of the antibiotics on the horses' vital organs, with its anti-inflammatory and liver-protective actions. It is also suggested that the herb may be able to break down the encysted form of the spirochete.

Echinacea sp – *Echinacea purpurea* This herb supports the immune system and one with a particular affinity for the stomach and digestive system as a whole, which makes it particularly appropriate for horses that have received antibiotics. The plant has an anti-spirochete action and has been shown to increase phagocytosis by the immune systems Natural Killer cells to engulf and destroy the invading bacteria.

Thuja - *Thuja occidentalis* Possessing anti spirochete, anti-bacterial and anti-viral properties, Thuja is recommended for use to help with the knock-on effects the antibiotics have in the liver, spleen, and stomach.

Echinacea and Thuja were historically used for the treatment of Syphilis.

Sarsaparilla – *Smilax Officinalis* Offering an anti-spirochete action, particularly when used in combination with echinacea, sarsaparilla is one of the "adaptogenic" herbs in the *materia medica*, and it has been known to help the body adapt to strain or stress by stimulating and mobilizing the body's own defense mechanism. Adaptogens can affect many different cells and are powerfully supportive against stress and its effects.

Ashwagandha – *Withania somnifera*. This important Ayurvedic herb is a tonic, an adaptogen, and an immune modulator, and also offers anti-inflammatory action. In Ayurvedic medicine, the plant is used for nervous exhaustion, especially due to stress, which can lead to signs of agitation, fatigue, or depression (all symptoms identified in Lyme horses). It is particularly suitable for weakened immunity, as research has confirmed its ability to significantly increase white blood cell and neutrophil counts.

Siberian Ginseng – *Eleutherococcus senticosus* Offering immunomodulatory and anti-inflammatory actions, Siberian ginseng's adaptogenic action will help the body adapt and mobilize its own defense systems, particularly when under stress. Trials of the herb on athletes and mountain rescue workers showed increases in their capacity to withstand challenging conditions, increased both mental and physical output, and, when taken long-term, dramatically enhanced immune function.

Pau d'arco – *Tabebuia avellanedae* Containing the compound Lapachol, which possesses significant immune-enhancing actions, Pau d'arco has been used successfully for degenerative conditions, gastric ulcers, and for its antimicrobial and antiparasitic action. Like echinacea, it has particular benefits for the stomach and the digestive system.

Garlic – *Allium sativum* This herb offers a wide range of anti-infective actions, particularly because bacteria do not become resistant to it. It has a prebiotic action, helping to increase numbers of beneficial gut flora that are destroyed by antibiotics. Garlic has also been shown to have an action against Gram-negative and encysted forms of bacteria, and as an added bonus may help keep the ticks away.



Give probiotics whenever the horse is receiving conventional medication and/or antibiotics.

Nettle – *Urtica dioica* This plant is a great natural tonic, containing masses of iron and vitamin C, which is well known for its beneficial action on collagen, one of the tissues most often invaded, and subsequently damaged by the spirochete. The herb is a circulatory stimulant, a blood tonic,

vasodilator, and offers anti-rheumatic and anti-arthritic actions. It is also excellent for helping to clear the body of accumulated blood toxins, such as inflammatory waste products.

Inflammation can be as a direct result of damage to the cells by the spirochete, along with other factors such as medication, or an imbalance in the immune response.

Turmeric – *Curcuma longa* This herb is an effective anti-inflammatory for arthritic conditions, will help regenerate liver cells, and has powerful antioxidant, antimicrobial, and antiviral actions. It is a digestive carminative and has been confirmed to help support the repair of the gastric mucosal barrier, which can be damaged by medication such as non-steroidal anti-inflammatories (NSAIDs).

Ginger- *Zingiber officinale* This lovely, warming herb is an anti-inflammatory, digestive carminative, a vasodilator and circulatory stimulant helping move the blood around the body and encourage the removal of inflammatory waste products. I also like to include ginger in my prescriptions as it has the action of increasing the absorption of other herbs.

Meadowsweet – *Filipendula ulmaria* An effective anti-inflammatory, this herb is particularly recommended to reduce excess stomach acidity and heal damage to the gastrointestinal tract, which can be caused by drug use or damage to the gut flora from antibiotics. In Lyme disease, arthritic symptoms can come and go, often being worse at the full moon. The spirochete has been shown to be able to hide in the synovial linings of the joint and then evade the immune system or the antibiotics by entering the synovial cells, only to re-emerge when the antibiotics have left the system or the immune response is weakened. Meadowsweet has been shown to help with swollen joints or inflamed connective tissue. It has also been shown to be able to change the pH in joint capsules, producing an adverse environment for bacteria.

Bilberry – *Vaccinium myrtillis* It has been shown that spirochetes can travel faster in collagen than in the bloodstream! This means that joints, the aqueous humor of the eye, meninges of the brain, and skin collagen are particularly susceptible to damage. The anthocyanins in bilberry have a collagen and connective tissue stabilizing action and can help repair the gastric mucosal barrier. Bilberry also contains quercetin, which helps repair the inflammatory damage. As an added bonus, when used in conjunction with turmeric, it promotes curcumin bio-availability.

St John's Wort – *Hypericum perforatum* We know that the spirochete can damage the nervous system, leading to both physical (ataxia) and emotional (behavioral) concerns. This herb is well known for its beneficial action on the whole of the nervous system, helping reduce inflammation, supporting the healing of damaged nerve endings, and acting as a relaxing nervine to reduce stress and anxiety.

Herbs for Cellular Detox and Organ Support

Herbal medicine's aim is to treat the whole body and nothing is more important than providing herbs to support the liver, kidneys, and digestive system's role in processing and removing waste products and toxins from the body.

Milk Thistle – *Silybum marianum* Milk thistle has been extensively researched and is recognized as a key herb for liver function, protection, and regeneration. The main constituent is silymarin, which is hepatoprotective and works by helping block the binding sites on the liver membrane, protecting it against a wide variety of poisons. It is also responsible for the generation of new liver cells. The seeds are also rich in glutathione, which give the herb its antioxidant and free radical scavenging actions.

Burdock - This herb is the supreme cellular detox. It has the ability to pull waste products from the cells and clear the body of accumulated toxins created by inflammation and drugs. It combines particularly well with nettle, which helps support the removal of the waste products from the body.

One of the major difficulties in treating Lyme disease is the spirochetes' ability to adapt and evade various treatments. To help combat this, it's important to provide a regularly changing herb profile. I recommend alternating the mix of herbs every 2–3 months.



About Hilary Self

Hilary Self, B.Sc.(Hons), MNIMH (member of the National Institute of Medical Herbalists), has authored two books on the use of herbs and complementary therapies for horses. Hilary and her husband live in Somerset, England, where together they run Hilton Herbs, a company that manufactures herbal healthcare products for animals.