



# Defend Against *White Line Disease*

with *Life Data®* Products



**Farrier's Formula®**

The nutrients provided in Farrier's Formula® *Double Strength* promote a healthier and stronger hoof that is more resilient to microbial invasion.

**Life Data®  
Hoof Clay®**

Antimicrobial hoof clay for packing into wall cracks, old nail holes, and hoof wall separations.

**Farrier's  
Finish®**

Non-caustic hoof topical that defends against hoof-eating microbes while maintaining proper moisture balance.

# *Causes and Prevention of* **White Line Disease**

## ***Causes of White Line Disease***

White Line Disease is a hoof wall invasion of common organisms in the environment. All horses are exposed. The medial (middle) hoof wall is the structure affected by White Line Disease. These organisms, both bacterial and fungal, require a nutrient-rich environment that is lacking oxygen to flourish. The outer hoof wall is more resistant to invasion due to its higher density and exposure to environmental oxygen compared to the lower density and lack of oxygen in the middle hoof wall. The third section of hoof wall, the inner hoof wall, is more resistant to invasion due to the proximity of live tissue in this area. The live tissue is not only oxygen rich, thereby inhibiting these opportunist anaerobic organisms, but also has infection fighting abilities.

Although a horse kept in a well-managed facility can develop White Line Disease without a clear cause, many cases have **mechanical, environmental or nutritional** contributing factors.

Trauma to the hoof capsule often creates bruising and bleeding. The damaged and leaking blood vessels create a good food source for the “hoof – eating” microbes. Other predisposing factors include a prior occurrence of an abscess or laminitis in which the hoof wall becomes full of holes and crevices, nail holes or hoof cracks allowing organisms to gain access.

**High moisture environments which tend to soften the foot and allow the bacterial and fungal organisms an easier entrance into the hoof.**

Excessive selenium supplementation predisposes horses to White Line Disease. Sulfur is required to build the strong cross links necessary for healthy hoof horn, however excess selenium substitutes in place of sulfur creating weak hoof structure. The empty spaces create an environment conducive for the invasion of the bacterial and fungal organisms associated with White Line Disease.

Another nutrition-related contributing factor to White Line Disease is excessive bran in the horse’s diet. Bran is the high fiber product of grain processing (grain hulls). Whether from wheat, rice, oats or other grains, bran contains phytates. Phytates block the absorption of calcium predisposing the horse to a calcium deficiency and other mineral imbalances. Calcium is important in providing the “glue” for cellular adhesion in the hoof tissue. Therefore hoof wall quality deteriorates with calcium deficiency. Calcium deficiency is often a result of diets high in bran and results in weak, crumbly hoof horn. The poor hoof wall quality creates holes and defects that allow the microbes associated with White Line Disease to penetrate.

It is also worthwhile to note that either an excess or deficiency of Vitamin A can result in poor hoof quality resulting in a microbial invasion

## ***Symptoms of White Line Disease***

The medial (middle) hoof wall is the structure first affected. The initial stages are non-painful. Often the farrier is the first to detect white line disease during a routine trimming or shoeing procedure. Irregularity or thickening of the “white line” on the solar surface of the hoof is usually detectable, often with a dry, chalky material accumulating at the white line on the solar surface. The farrier may notice abnormal percussion in areas of the hoof wall. The hoof wall may be dished inward (concave) opposite of the affected areas and the hoof wall may bulge above the affected areas. As the hoof wall becomes increasingly hollow the outer hoof wall begins to break away. If the horse is shod, nail holes can appear darkened from previous shoeing, and the hoof wall develops less “nail holding” ability. Lameness develops in the advanced stages.

## ***White Line Disease Treatment***

Although proper nutrition creates a denser hoof wall that is more resistant to White Line Disease, applying a topical product that utilizes a blend of ingredients known to have antimicrobial properties is an important step. Iodine and tea tree oil are examples of ingredients with these properties. Effective products are available with a sticky clay-like consistency which pack easily and stay in place within existing wall cracks, wall defects, old nail holes, and hoof wall separations for extended periods of time.

Do not use topical products that prevent oxygen from passing through the hoof wall. Avoid remedies containing caustic chemicals such as bleach, copper sulfate, grease, motor oil, pine tar, formaldehyde, acetone, and turpentine. A good rule of thumb would be to avoid preparations that you would not want in contact with your own skin.

If the White Line Disease is extensive, hoof wall resection will allow oxygen to gain access to affected areas, thereby destroying the harmful hoof eating microbes that thrive in low oxygen environments

## ***Tips for Prevention of White Line Disease***

Properly balanced nutrition strengthens the sole and hoof wall, thereby reducing the likelihood or severity of white line disease. The prevention of white line disease is most effective when a quality hoof supplement is utilized in combination with packing any existing hoof defects with a safe and effective topical hoof product containing ingredients known to combat microbes.





# ***Hoof Perfection. Joint Protection.***

Farrier's Formula<sup>®</sup> DS Plus Joint Addresses

*Joints and Tendons*

*Skin and Coat*

*Frog and Sole*

*Hoof Wall Defects*

# Farrier's Formula<sup>®</sup> DS Plus Joint

Farrier's Formula<sup>®</sup> DS Plus Joint is a pelleted formula for horses with active ingredients to rebuild and strengthen the connective tissues of the hooves, joints, and skin. Farrier's Formula<sup>®</sup> DS Plus Joint will also restore hair coat color and shine.

“ I honestly could not believe the difference the joint remedy made. I had previously injected my horse's hocks every 12 to 18 months as a rule to reduce inflammation and improve performance. When the vet performed a routine flex exam, he concluded we did not need any injections. I am 100 percent certain this is due to Farrier's Formula<sup>®</sup> DS Plus Joint. Thanks to my farrier, Darren, my horse now has healthier feet and joints. Best of all I now have a healthy happy horse. ”

*Lorie B. - Horse Owner*

## ACTIVE INGREDIENTS

### Per 85 gram Serving

Ornithine	85 mg
Proline	3,060 mg
Glucosamine	1,100 mg
Manganese	85 mg
Sulfur	1,190 mg
Omega 3 Fatty Acids	757 mg
Phospholipids:	
Phosphatidylcholine	3,613 mg
Zinc	250 mg
Copper	92 mg
Biotin	20 mg
Inositol	655 mg
Ascorbic Acid (Vit C)	652 mg

INACTIVE INGREDIENTS - Dehydrated Alfalfa Meal, Soy Protein Concentrate, Lecithin, Yeast Culture Dehydrated, Calcium Carbonate, Yucca Extract, Fenugreek Extract.

Farrier's Formula<sup>®</sup> DS Plus Joint provides active ingredients to repair and strengthen the connective tissue of hooves and joints.

The inclusion of ornithine, proline, glucosamine, and manganese provide targeted joint repair and support.

## DIRECTIONS FOR USE

### Adult Replenishment Dosage

For each 1,000 lbs (450 kg) of body weight administer one half standard kitchen measuring cup (119 ml or 85 g) of product per day.

### Cup Not Included.

Body Weight	Cups Per Day
500 lb. (225 kg)	1/4 Cup (43 g)
1000 lb. (450 kg)	1/2 Cup (85 g)
1500 lb. (675 kg)	3/4 Cup (128 g)
2000 lb. (900 kg)	1 Cup (170 g)

### Weanling to Adults Dosage

The predicted adult weight from the chart above.

### Nursing Foals Dosage

1/8 measuring cup (2 tablespoons, 30 ml or 21 g) per day.

The 11 lb. (5kg.) vacuum bag delivers a sixty day supply for a 1,000 lb. horse at the Adult Replenishment Dosage.





# ***Protect Hoof Growth and Quality***

**Farrier's Finish<sup>®</sup> Addresses**

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*Thrush and White Line Disease*

*Hoof Wall Cracks, Nail Holes and Defects*

*Harmful Effects from Ammonia*

*Hoof Moisture Balance in Wet and Dry Conditions*

# Farrier's Finish<sup>®</sup>

Farrier's Finish<sup>®</sup> is a liquid hoof topical that combats the "hoof eating" bacterial and fungal invasions which cause White Line Disease, Thrush, and poor hoof quality. It is also a hoof conditioner that supports correct hoof capsule moisture balance in excessively wet or dry conditions. Farrier's Finish<sup>®</sup> is the perfect hoof topical for stalled horses due to the Yucca plant extract ingredient that binds the ammonia within excrement and reduces its harmful effects.

“After using Farrier's Finish<sup>®</sup> each day, in a very short time, the flaking was gone as well as the crack. The color of the hoof is healthy and looks nourished. I cannot rave enough about Farrier's Finish<sup>®</sup> and the staff at Life Data<sup>®</sup> for educating me on the care of my horse's hooves.”

*Susan L. - Horse Owner*

## THE PROBLEM WITH MOST HOOF TOPICALS

A horse's hoof, tough as it may appear, is made from the same proteins as your own skin. In fact, a horse's hoof is 95% protein. Many chemicals used in commercial hoof products can denature and thereby destroy the protective function of this protein. Formaldehyde, turpentine, pine tar and acetone will harden the hoof and make the hoof shine; however by chemically "cooking" the protein the hoof loses some of its elastic qualities and ability to absorb shocks. Shock absorption is a primary function of the hooves!

A hoof wall without elasticity is more prone to cracking, and a hoof wall unable to "breathe" naturally cannot maintain healthy moisture content. Farrier's Finish<sup>®</sup> preserves proteins and supports elasticity of the hoof wall.

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## DIRECTIONS FOR USE

Shake well before use. Hoof should be clean and dry before application.

**For Hoof Problems:** Apply daily to entire hoof (coronary band, wall, sole, and frog). Special attention should be given to the white line area at the junction of the sole and the hoof wall, and any cracks, crevices, nail holes or areas of concern. Allow to penetrate for several minutes. Apply each time the hoof is dressed, rasped or trimmed.

**To Protect Hooves from the Environment:** Apply daily, every other day, or twice per week depending on severity of wet or dry environmental conditions.

**To Maintain Healthy Hooves:** Apply Farrier's Finish<sup>®</sup> twice per week when environmental conditions are not excessively wet or dry.

## INGREDIENTS

Grain extract, Amino Acids, Propane-1,2-diol, Tea Tree oil, Propan-2-ol, Iodine, Yucca Extract.





# ***Protect External Hoof Health***

Life Data<sup>®</sup> Hoof Clay<sup>®</sup> Addresses

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*Thrush*

*White Line Disease*

*Crumbling Hoof Horn*

*Hoof Wall Cracks, Nail Holes and Defects*

# Life Data® Hoof Clay®

Life Data® Hoof Clay® is a pliable antimicrobial clay which easily packs and remains in place within hoof wall defects, old nail holes, wall separations and cracks. Life Data® Hoof Clay® provides continuous long-term protection against a wide spectrum of bacterial and fungal invasions which cause poor hoof quality, wall separations, crumbling horn, White Line Disease, and Thrush. It is non-irritating and is safe to apply without wearing gloves.

“ I can't say enough good things about Life Data® Hoof Clay®! My horse was having some serious issues with hoof wall separation and cracking. I used the clay every other day after cleaning his hooves. It cleared up his white line and made his hooves so much stronger! ”

*Stacy D. - Horse Owner*

## APPLICATION INSTRUCTIONS

### **For Hoof Wall Defects:**

Hoof should be dry and clean before application. Use fingers or a tongue depressor to press Life Data® Hoof Clay® into areas of concern such as white line separations, crumbling hoof horn, hoof cracks, and old nail holes. As a general guideline apply twice per week in wet conditions and less frequently in dry conditions.

### **For White Line Disease:**

Apply directly to white line area and any hoof wall defects. If barefoot, re-apply twice per week. If shod, pull shoes and apply directly to white line area. Re-apply at each shoe reset. Life Data® Hoof Clay® can be used routinely under shoes as a White Line Disease preventative. Driving the nail through the Hoof Clay helps protect the new nail hole.

### **For Thrush:**

Thoroughly pick, clean and dry the sulci of the frog. Pack the sulci and affected areas with Life Data® Hoof Clay®. Re-apply twice per week.

*Life Data® Hoof Clay® can be used routinely to maintain healthy hooves*

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## INGREDIENTS

### **Active Ingredients:**

Iodine, Tea Tree Oil, Yucca Extract

### **Inactive Ingredients:**

Silicon Dioxide, Grain Extract







# Life Data® Lamina Formula

- Assists in Laminitis Recovery
- Maintains Proper Blood Flow in Hooves
- Provides Laminae Support
- Helps Reduce the Incidence of Laminitis

## For Horses with a *History of Laminitis*

Life Data® Lamina Formula is a laminae support supplement for horses with acute or chronic laminitis. Life Data® Lamina Formula provides nutrients that can benefit many horses with laminitis. The ingredients in Life Data® Lamina Formula assist in laminitis recovery, reduce inflammation, support the maintenance of blood flow in the hoof wall, and help protect from or reduce the incidence of future bouts of laminitis. Life Data® Lamina Formula was developed utilizing blood test results derived from the Life Data® Research Program. **For the best results, Life Data® Lamina Formula should be fed together with Farrier's Formula®.** Farrier's Formula® supplies the nutritional support to strengthen the connective tissue of the hooves. Two bags of Life Data® Lamina Formula along with one bag of Farrier's Formula® *Double Strength* is a 60-day supply for the average 1,000 lb. horse.

### GUARANTEED ANALYSIS

Crude Protein (Min)	21.0 %
DL-Methionine (Min)	3.10 %
Tyrosine (Min)	0.71 %
Crude Fat (Min)	8.5 %
Crude Fiber (Max)	16.0 %
Acid Detergent Fiber (Max)	22.0 %
Neutral Detergent Fiber (Max)	32.3 %
Calcium (Min)	1.5 %
Calcium (Max)	2.0 %
Phosphorus (Min)	0.5 %
Copper (Min)	345 ppm
Zinc (Min)	1490 ppm
Iodine (Min)	5.9 ppm
Vitamin C (Min)	1,000 mg/lb
Thiamine (Min)	80 mg/lb

### INGREDIENTS

Dehydrated Alfalfa Meal; Soy Protein Concentrate; Lecithin; Yeast Culture Dehydrated; DL-Methionine; Calcium Carbonate; Yucca Extract; Hydrated Sodium Calcium Aluminosilicate; L-Tyrosine; Zinc Amino Acid Complex; Ascorbic Acid (source of Vitamin C); Fenugreek Extract; Iodine Amino Acid Complex; Basic Copper Chloride; Thiamine Mononitrate

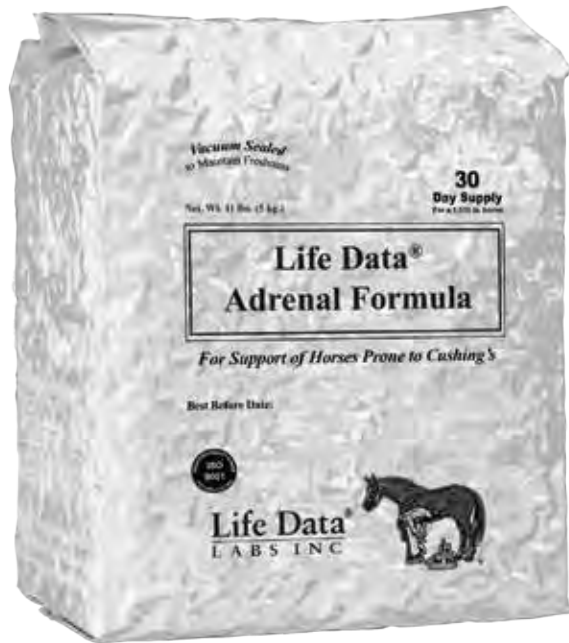
### FEEDING INSTRUCTIONS

Life Data® Lamina Formula can be fed to horses with a history of laminitis. Nutritional support to strengthen the connective tissue of the hooves should be provided by giving Farrier's Formula® original or Farrier's Formula® *Double Strength* along with Life Data® Lamina Formula.

#### Adult Horses

For each 1,000 lbs. (450 kg) of body weight feed one standard kitchen measuring cup (237 ml or 170 g) of product per day.

Body Weight	Cups Per Day
500 lb. (225 kg)	1/2 Cup (85 g)
1000 lb. (450 kg)	1 Cup (170 g)
1500 lb. (675 kg)	1 1/2 Cups (255 g)
2000 lb. (900 kg)	2 Cups (340 g)



# Life Data® Adrenal Formula

- Supports Normal Adrenal Gland Function
- Helps Improve Glucose Metabolism
- Promotes the Rebuilding of Healthy Connective Tissue
- Assists with Regulation of Thyroid and Adrenal Hormones

## Support For Horses Prone to **Cushing's**

Life Data® Adrenal Formula provides active ingredients that can benefit horses with PPID, or Cushing's Disease. The active ingredients may help improve glucose metabolism, regulate adrenal and thyroid hormones, and improve metabolism. Life Data® Adrenal Formula also provides antioxidants and active ingredients to rebuild healthy connective tissue. Life Data® Adrenal Formula was developed utilizing blood test results derived from the Life Data® Research Program. One bag of Life Data® Adrenal Formula is a 30-day supply for the average 1,000 lb. horse.

### ACTIVE INGREDIENTS

*PER 170 GRAMS*

Inositol	1,600 mg
L-threonine	12,000 mg
Thiamine	32 mg
L-tyrosine	1,000 mg
Ascorbic Acid	500 mg
Proprietary Silicon Complex	3,000 mg
Zinc	300 mg
Boron	18 mg

### INACTIVE INGREDIENTS

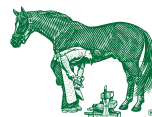
Dehydrated Alfalfa Meal; Soy Protein Concentrate; Lecithin; Yeast Culture Dehydrated; Fenugreek Extract.

### FEEDING INSTRUCTIONS

#### Adult Horses

For each 1,000 lbs. (450 kg) of body weight feed one standard kitchen measuring cup (237 ml or 170 g) of product per day.

Body Weight	Cups Per Day
500 lb. (225 kg)	1/2 Cup (85 g)
1000 lb. (450 kg)	1 Cup (170 g)
1500 lb. (675 kg)	1 1/2 Cups (255 g)
2000 lb. (900 kg)	2 Cups (340 g)





# ***Anhidrosis Formula for Horses***



Life Data® Sweat Formula Addresses

*Sweat Production*

*Heat Exhaustion*

*Overheating*

*Skin Restoration*



# Life Data<sup>®</sup> Sweat Formula

*Enhances the Ability of Non-Sweating Horses to Sweat and Restores Skin Condition*

Horses, like humans, regulate their body temperature through the evaporation of sweat. Anhidrosis in horses is the inability or reduced capacity to sweat. Dangerous hyperthermia, or overheating, often occurs and requires immediate action by the horse owner or handler to cool down the horse.

Life Data<sup>®</sup> Sweat Formula provides active ingredients that help induce the horse's ability to sweat. The active ingredients contained in Life Data<sup>®</sup> Sweat Formula will also promote the growth of healthy skin.

## ACTIVE INGREDIENTS

**Per 170 gram Serving**

Phosphatidylcholine	2,000 mg
Inositol	1,650 mg
L-tyrosine	1,200 mg
Ascorbic Acid	623 mg
Proprietary Silicon Complex	550 mg
Zinc	250 mg
Thiamine	40 mg
Iodine	1.0 mg

INACTIVE INGREDIENTS - Dehydrated Alfalfa Meal; Soy Protein Concentrate; Lecithin; Yeast Culture Dehydrated; Sea Salt; Fenugreek Extract.

## DIRECTIONS FOR USE

The product may require daily dosing of up to six weeks prior to generating the desired response. Administer Life Data<sup>®</sup> Sweat Formula daily throughout the warm weather seasons.

Body Weight	Cups Per Day
500 lb. (225 kg)	1/2 Cup (85 g)
1000 lb. (450 kg)	1 Cup (170 g)
1500 lb. (675 kg)	1 1/2 Cups (255 g)
2000 lb. (900 kg)	2 Cups (340 g)

### Adult Dosage

For each 1,000 lbs (450 kg) of body weight administer one standard kitchen measuring cup (237 ml or 170 g) of product per day.

### Growing Horse

Administer the level corresponding to the predicted adult weight from the chart.





# ***Calming without Sedation***

**Compose<sup>®</sup> 2x**

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*Addresses Stress and Anxiety*

*Reduces Hyperactivity and Excitement*

*No Side Effects or Sedation*

*Maintains Alertness*



# Compose<sup>®</sup> 2x

Compose<sup>®</sup> 2x is a pelleted concentrated calming formula for horses prone to anxiety or excitability in stressful situations. Compose<sup>®</sup> 2x does not contain substances or ingredients that lead to sedation or loss of alertness.

“ The horse I jump with has a temper and gets quite excitable. After using the product, I immediately noticed an improvement in her temperament. She still retained her vitality, but I had more control over her. This was a positive experience and I now recommend Compose to everyone, you will surely notice the difference. ”

*Jelle - Horse Owner*

## ACTIVE INGREDIENTS

Per 85 gram serving (2 scoops)

Magnesium (from magnesium oxide)	1, 870 mg
L-Tryptophan	6,700 mg
Thiamine (from thiamine mononitrate)	30 mg

Inactive Ingredients - Dehydrated Alfalfa Meal, Fenugreek Extract

## DIRECTIONS FOR USE

### Long Term Maintenance:

Administer 2 scoops (85 grams or 3 oz. dry wt.) per 1,000 lbs. (450 kg) body weight once per day.

### For Use Prior to Activities:

Administer 2 scoops (85 grams or 3 oz. dry wt.) per 1,000 lbs. (450 kg) body weight on an empty stomach. After administering Compose<sup>®</sup> 2x allow 1 to 3 hours prior to activities such as loading, hauling, training, showing, new environment, grooming, health maintenance or similar procedures.

Tryptophan is a precursor for serotonin production in the brain. Serotonin regulates mood balance. Thiamine plays a role in maintenance of nerve tissues and nerve transmission. Magnesium is important in maintaining correct nerve transmission and muscle function.

Horses in Competition: L-Tryptophan is a prohibited substance in certain competitions. The event sanctioning body can provide the status of L-Tryptophan and, if prohibited, the necessary withdrawal time.





## *Did You Know?*

*Life Data® can collect nutrition answers from a simple blood draw.*

We are conducting research to investigate how nutrition impacts horses with metabolic disorders and other specific conditions. Equine conditions in the research project include:

- Obesity
- Insulin Resistance
- Cushing's Disease
- Recurrent Laminitis
- Chronic Laminitis
- Arthritis
- Chronic Dermatitis
- Etc.

**Contact Life Data Labs, Inc. if you are interested in applying for your horse to be part of the Nutrition Research Program.**

\*The data collection and analysis could take up to a year or more before a sufficient number of cases are collected to make assessments. If we determine that the horse may benefit from specific nutrition or a change in the feeding program we will make the recommendation to the horse owner. The information derived from equine blood testing at Life Data® is to be utilized as a tool and is not intended to be used as a diagnosis or as a replacement of professional medical judgment.

[www.lifedatalabs.com](http://www.lifedatalabs.com)  
[cservice@lifedatalabs.com](mailto:cservice@lifedatalabs.com)

**Life Data®**  
LABS, INC. 



256-370-7555  
1-800-624-1873

# Make additional income

by recommending and selling products from  
Life Data Labs, Inc.

## Farrier Affiliate Program

Full-time farriers can become factory authorized Life Data® dealers.

*Life Data Labs, Inc., a research company founded by veterinarian and nutritionist Dr. Frank Gravlee, has been manufacturing equine products for over 30 years. Our products can be found on 5 continents and in 27 countries around the world. Life Data Labs, Inc. was the first manufacturer to recognize the full-time farrier as a dedicated professional.*

## Benefits of Being a Life Data® Farrier Dealer:

- You will be listed on our dealer locator on our websites.
- We can provide you nutritional advice, customer referrals and fast shipping.
- We can ship the products directly to you, or drop ship them to your client.
- Our 11 lb. bags are easy to carry and occupy minimal space in your Farrier rig.
- The nitrogen purged vacuum bags ensure a three year shelf life.
- We can provide you with hoof care booklets, product brochures and informational sheets.
- We can promote your success stories on Facebook and our website.

## How Life Data® Supports the Farrier Industry:

- Life Data® is a Corporate Sponsor of the AAPF Farrier Assistance Program. The funds of this program are used exclusively for ill or injured farriers.
- Life Data® is an educational partner of the AAPF and the International Hoof Care Summit.
- We provide nutrition educational programs to various farrier schools throughout the U.S.
- We support farrier competitions, meetings and clinics of the AFA.
- Life Data® is a communications sponsor for the AFA.
- Life Data® is a sponsor for the Burney Chapman Memorial Lecture at the International Hoof Care Summit

## Contact us to Request a Dealer Application

[www.lifedatalabs.com](http://www.lifedatalabs.com)  
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256-370-7555  
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