



**Levi Smith**

**Store Manager**

**Southern States Hendersonville**

Hello,

It was wonderful meeting with you all to scout your pastures and discuss your needs to turn the horse pastures back into productive ground. Below, I have laid out a time line for when certain applications need to be made and some products that you will need to use to control the weeds. Based on my observations when I visited the farm, the pastures are severally over grazed. The horses have eaten the grass to the dirt and removed most of the nutrition that the grass stores in the stem 2-3 inches above the ground, this means it will take longer to get the grass back to growing. You will need fertilizer to make the grass grow back faster. If the horses are left on these pastures they will continue to eat the grass down and not let it grow. My suggestion is to keep the horses off the pastures after the fertilizer application and grass seed has been put on the pastures so that the grass can grow. The shape that the pastures are in at this time it could possibly take a year to get the pastures back in manageable shape and have enough grass to support the horses you have grazing it. As a good rule of thumb 1 horse needs 1-3 acres to graze and even then, if you notice the pastures starting to get over grazed there will need to be a way to rotate them off to let the grass grow back.

First area of importance, your pastures need lime. Our trucks can haul roughly 8 acres worth of lime per load so it will take 2 truckloads to get over the ground that we discussed roughly 13-15 acres. Your soil sample calls for 2+- tons of lime per acre. It is recommended that only 1 ton be put out each application because the ground can only except a certain amount every 3-6 months. You are currently on the list to get an application as soon as it dries up and then we will need to put another application in the fall/winter of this year. There are no grazing restrictions for lime. This means the horses are safe to go back on the pastures as soon as the trucks are off the fields. The lime will cost \$45 per ton plus spreading which is a \$250 min fee or \$12.50/ acre. For 2 truck loads which is 14-15 tons will cost \$900-\$1000 for the lime and for use to spread it.

Second area of importance is weed control. Weeds will choke out the grass that you are trying to grow and need to be controlled with herbicide. There will most likely need to be 2

applications done, one in early march and one in mid/late summer (mid-June- July). These applications of herbicide are to control Buttercup (yellow flower) mid-march and summer annual weeds mid-June-July. There is no one product that can control mass number of weeds throughout the growing season so 2 applications are necessary. Per our conversation earlier, Southern States does not offer the service of spraying, therefore you all will have to either have a sprayer to apply the product or possibly hire someone to do this. The product that I suggest is Weedmaster, this product has no restrictions and is easy to use. You would apply Weedmaster at 1.5 qts per acre plus a surfactant. A surfactant is a product formulated to make the herbicide work more efficient by making the plant absorb the herbicide. The cost for Weedmaster is \$85 per 2.5 gallon. One 2.5-gallon jug will do 6.5 acres. The Surfactant cost \$51/2.5gal you only add 1 qt per 100 gallons of water.

There are a couple other product options (Grazonnext and Duracor) that can be used that do not have any grazing restrictions but they do have some restrictions on where the horse manure can be used. We can discuss these other options in detail if you would like to hear about the benefits.

Third, would be an application of fertilizer. Application would be at least once a year in the spring based on your soil sample. I would apply the fertilizer within a week or 2 once you make your first application of Herbicide. There are no restrictions for fertilizer that is spread on your pasture. The horses can graze on the grass as soon as the trucks are gone. The only thing that anyone has to be careful with is how long their horses graze on grass that has been fertilized. The fertilizer will make the grass more nutritious and have more protein and energy. If a horse is left to continuously graze on this grass it could cause the horse to founder. I would recommend doing turn outs or use grazing muzzles so that they do not over graze and cause problems. This is something you would want to discuss on a case to case basis with your veterinarian on how long to let each horse graze. Some horses will be able to handle more than others. Based on the soil samples the cost to fertilize your pastures is \$155 per acre and then a \$400 spread fee. So, based on the spreading and the fertilizer for 15 acres the cost will be about \$2725 plus tax.

After looking at the pastures you will need to over seed the pastures with fescue. This should be done Mid-April. With the grass that is still there I would recommend 25lb of seed per acre. The Fescue is Kentucky 31 it comes in 50lb bags and cost \$110 per bag. It will take 6-7 bags to over seed your pastures.

**Thank You,**

**Levi Smith**