

Why Pastures and Hay Need Mycorrhizal Fungi

By Paul Schneider Jr.,
AG-USA

Last month a leading farm publication had a 5 page article on mycorrhizal fungi. Come to find out, these oft over-looked fungi have the ability to greatly increase the interface between root and soil (see drawing). This enhances the efficiency at which the plant can take up nutrients and moisture.

Unfortunately, modern farming practices tend to hinder and even destroy the development of mycorrhizal fungi.

Soil cultivation, the extensive use of NPK fertilizer, leaving the ground fallow with nothing growing on it for months, single crop environments, plus extensive pesticide and herbicide use all have taken a toll and minimized the growth of mycorrhizae.

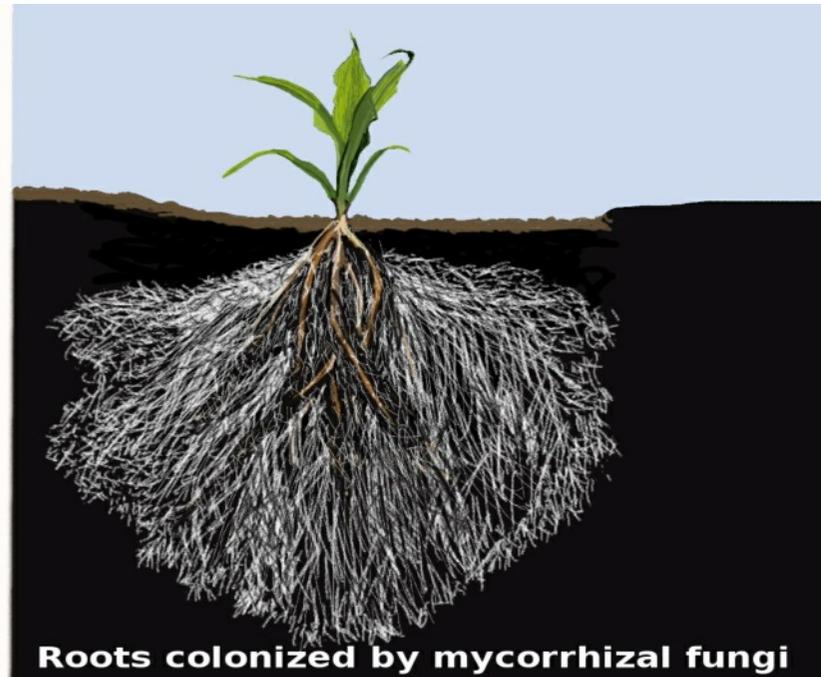
In fact, when phosphorus levels are high in the soil, phosphorus will be high in the root, which totally shuts down carbon sequestration. The plant will not feed mycorrhizae when the plant root has a lot of phosphorus.

On the other hand, when phosphorus is low in the soil, the plant will feed mycorrhizae, and mycorrhizal fungi will supply needed phosphorus.

Experts report that 97% of soil nutrients are tied up. In a good acre of farm land, this includes around 4,500 lbs. of phos. Aerobic bacteria (like those contained in MycorrPlus) help to make these nutrients available.

Once microbes make nutrients available, mycorrhizal fungi help to transport them up to the plant. You already have a whole lot of phosphorus in the soil; why not use it?

What else can we do to put these



fungi back to work in our soils? To begin with, AG-USA's product, MycorrPlus, can help plant roots to colonize mycorrhizal fungi in less than optimal soil environments.

MycorrPlus contains 4 strains of mycorrhizal fungi, plus it has nutrients that feed mycorrhizae AND the aerobic bacteria that work with mycorrhizae to enhance soil. Get the AG-USA info. packet for some simple strategies to further increase mycorrhizae growth.

Although MycorrPlus can help row crops, it is even easier to establish mycorrhizal fungi in pasture and hay ground. These fields are not tilled; plus there is no fallow period; they continue to nurture fungi with sugar, increasing their development.

Mycorrhizae "glue"

Mycorrhizae filaments are sticky. When they colonize the roots of a plant, they exude glomalin, a sticky sugary protein. This protein causes soil particles to

stick together into aggregates, filling the soil with tiny air pockets. This helps to stabilize surface soils, protecting from wind and water erosion.

When soil is structured by mycorrhizal fungi, it helps water to move quickly from upper levels of the soil to deep within the soil. This helps protect the plant as well as aerobic soil microbes from being "drowned out" by waterlogged fields, plus it means that you can get back into the field more quickly after a rain.

Mycorrhizae transport nutrients and water

Drought isn't just about the plant not getting enough moisture. When the ground is dry, it makes it hard for the plant to get the nutrients it needs. Once again, mycorrhizal fungi are there to help. When the upper soil becomes dry, mycorrhizal fungi work to transport moisture and nutrients up from deep within the soil. In this way,

mycorrhizae improve the ability of the plant to make it through a dry spell.

Think of mycorrhizae as a kind of "drought insurance" for farmers who must deal with erratic weather patterns!

Symbiotic relationship

God created 90% of plants to function in relationship with mycorrhizal fungi. Grass and alfalfa certainly do need mycorrhizal fungi, and the fungi are dependent on them. Let's get this synergistic relationship going again!

There are rich blessings that come by finding ways to cooperate with nature. One of the goals of AG-USA is to help farmers cooperate with nature by establishing mycorrhizal fungi back in the soil.

For your pastures and hay acres, why not get some MycorrPlus and get the process started?

- Imagine no more compaction.
- Imagine your happiness when your pasture and hay continue growing even when it gets dry.

- Imagine having so much grass that your cattle can't keep up with it.
- Imagine more cows per acre, and more money in your pocket!

Please call us toll-free today and request a free information packet!

1-888-588-3139

Or learn more at: www.AG-USA.net

Conquer Nature by
Cooperating with it

MycorrPlus™

Like a center pivot for dryland farmers!

Reduces the need for LIME and other fertilizers

MycorrPlus is a liquid bio-stimulant that helps to remove compaction by highly structuring the soil. It creates an "aerobic net" in the soil that retains nutrients and moisture. It contains sea minerals, 70+ aerobic bacteria, 4 strains of mycorrhizae fungi, fish, kelp, humic acids and molasses. \$20 to \$40/acre.

Call AG-USA now at (888) 588-3139 for a free information packet, or go to: www.AG-USA.net Organic? Use MycorrPlus-O.

AG-USA, LLC, PO Box 73019, Newnan, GA 30271 info@ag-usa.net

