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Grass Growth and Development – Get...Ready...

It's easy to take perennial forage crops for granted. They green up when it gets warm. We graze or hay them. They go dormant in winter and do it all over again the next year. Production levels might be slightly different. Species composition may change slightly. Often, however, the changes are so slight we don't even notice much – until we do. An understanding of what's going on in those plants right now can help explain why we see changes from time to time.

As temperatures start to get warmer, cool season grasses (brome/fescue) are slowly emerging from dormancy. As they do so, they are using energy stored in roots to put out new leaves and tillers. As long as there's ample energy in the 'system', leaves come on until there is enough new foliage to support continued leaf growth *and* root energy replenishment. The plant is off and running and all is well.

Sometimes all is not well, however. We see lots of stands, particularly hayed stands, where phosphorous (and on an increasing basis, potassium) is low. Low phosphorous levels may mean less plants. Less plants means less production – and more opportunity for invasive species.

Maybe the stand didn't have enough time last fall to recover prior to dormancy (late haying, drought stress, grazing pressure, etc...) and not enough fall growth occurred to replenish root reserves. Greenup could be delayed and species that were just waiting for an opportunity to take off jump ahead of our more desirable species.

There may not be much you can do at this point, but observation is still in order. Do you see differences in greenup between stands? If so, why? Are weeds increasing in a particular part of the pasture or hay field? What does that then mean for management through the remainder of the season? Plan now to make observations that can help you enhance management going forward – instead of taking for granted the stand is going to do it all on its own.

Using a Soil Thermometer

Air temperature isn't a good indicator. The calendar isn't always the most reliable. If you want a (simple) tool to help you make good planting decisions – and help plants get off to a good start in the right conditions - get a soil thermometer.

We get away most of the time with planting cool season crops a little early. Radishes prefer a soil temperature of 45 F to get started. Peas will germinate and grow at 40 F. Warm season crops are a different story. Sweet corn and beans want soils at 55 F to germinate and peppers/cucumbers/melons like 60 F. Unlike cool season seeds that may push through, planting the seeds of warm season crops in to soils that are too cool may result in rot and transplant loss.

Simple as it may seem, taking soil temperature shouldn't be done without planning. Take temperatures from a depth of two and a half inches at mid-late morning. Shoot for 10-11 to avoid cool mornings and warm afternoons, but if that isn't feasible, take a reading before you leave in the morning and average it with the one you take when you get home. If you get consistent warming temperatures over a four to five day stretch – and a cold snap isn't on the horizon - it might be go time. Until then, practice just a little more patience.

For a planting guide, check out *Soil Temperature Conditions for Vegetable Seed Germination* at <https://tinyurl.com/1jw297zt> .