

Diagnosing the Cause of Yellow Alfalfa

Yellowish alfalfa has been showing up at extension offices across Nebraska. As we discussed growing conditions and cultural practices, some of these fields had several factors in common.

First, the alfalfa was planted last year. If it was a spring planting, it usually did not grow especially vigorously. In most cases, alfalfa had not been present in the field for many years. And just about as often, no soil test was taken. Usually, the yellowing is variable across the field. Sometimes it's associated with topography, but not always.

So what is the problem? Well, if the alfalfa is yellow only in low areas, the problem can be phytophthora root rot. But what I see more often is a nitrogen deficiency. What? Nitrogen deficiency? How can alfalfa be nitrogen deficient when it can make its own nitrogen?

What's happening is the alfalfa is not forming nodules to make nitrogen because the soil is acid or the seed wasn't inoculated. Alfalfa needs a soil pH above 6.2 and adequate inoculum to form nodules. Our surface soils are becoming more and more acid because both tillage and nitrogen fertilizer increase soil acidity. Lime is needed to neutralize soil acidity. And even if soil pH is acceptable, the correct type of Rhizobium bacteria also are needed. Fields that have not grown alfalfa in the past several years often need more bacteria added with the seed.

Look at your own new fields. See these symptoms? Remember, soil testing, lime, and inoculants pay when needed.

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