Spring Forage Management Considerations

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Abstract
Pasture and forages stands have really started to green-up. Here are some fertilizer and weed management considerations and recommendations to help make the most out of pasture and forage stands this year.

Disciplines
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Integrated Crop Management

Spring Forage Management Considerations

April 16, 2021

Pasture and forages stands have really started to green-up. Here are some fertilizer and weed management considerations and recommendations to help make the most out of pasture and forage stands this year.

Fertilizer considerations

Fertilization is just as important for forages as it is for row crops to maximize productivity. However, current fertilizer prices may have you seeing a lot of dollar signs.

Phosphorus, potassium, and lime considerations

To maximize fertilizer dollars, it is important to know what nutrients, particularly phosphorus (P), potassium (K), and lime your pasture or forage stand really needs. The only way to know what and how much is needed, is to soil test. See CROP 3108 “Take a Good Soil Sample to Help Make Good Fertilization Decisions” for more information on soil sampling.

Soils testing low or very low will benefit the most from P and K fertilization. Also, remember that forage harvest removes a lot of P and K. See Table 2 in PM1688 “A General Guide for Crop Nutrient and Limestone Recommendations in Iowa” to estimate crop removal rates. For example, a bromegrass/fescue pasture with a yield of five bales per acre (assuming each bale is approximately 1500 pounds) removes approximately 198 pounds of K₂O and 32 pounds of P₂O₅ per acre.

When harvesting forages, we’d want to at least put back what we take off. If you cannot afford a full removal rate, put on what you can afford even if it’s only a partial rate. If you have to pick between P and K, prioritize the K since forages have a higher K removal rate.
While timing of P and K applications can be flexible, it is often more convenient to fertilize in the fall or spring with your nitrogen fertilizer application.

Soil pH is particularly important if trying to establish or maximize productivity of legumes in a pasture or forage stand. The soil pH tells us if we need to add lime, and the buffer pH tells us how much lime is needed. A soil pH of around 6.0 is recommended for grass-based hayfields and pastures. To encourage and maintain legumes, try to maintain a pH of 6.5 for clovers and birdsfoot trefoil and a pH of 6.9 for alfalfa. Use table 16 in PM1688 “A General Guide for Crop Nutrient and Limestone Recommendations in Iowa” to determine lime needs.

Pelletized lime vs ag lime? Which one should you use if your soil test results call for lime? Typical extension answer, “it depends.” Ask yourself “how soon do you need to correct the soil pH, do you own the farm, and when do you plan to seed legumes? Both forms of lime are effective; however, the pelletized lime tends to work faster than the ag lime, which tends to take longer, but have more longevity.

**Nitrogen considerations**

If you plan take a first cutting of hay off prior to grazing, you may want to be more aggressive with your nitrogen application rate compared to if you plan to rest your pasture prior to turn out. As a reminder, for those with tall fescue, be cautious to not over fertilize with nitrogen as that promotes fescue growth. Suggested N application rates for single N application are in Table 1 and rates for split applications are in Table 2.

**Table 1. Suggested N application rates for a single annual application.**

<table>
<thead>
<tr>
<th>Kentucky bluegrass</th>
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<td>April: 60-100 lbs N/acre</td>
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<tr>
<th>Tall cool-season grasses</th>
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<tbody>
<tr>
<td>April: 80-120 lbs N/acre</td>
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</table>

| Warm-season grasses                    |
Late April to early May: 80-150 lbs N/acre

Table 2. Suggested N application rates for split applications.

**Kentucky bluegrass**

- Early spring (March-April) 60-80 lbs N/acre
- Late spring (May-early June) additional 30-40 lbs N/acre (optional)
- And/or late summer (August-September) additional 30-40 lbs N/acre

**Tall cool-season grasses**

(orchardgrass, smooth bromegrass, reed canarygrass, and tall fescue*)

- Early spring (March-April): 80-120 lbs N/acre
- Late spring (May-early June) additional 40-60 lbs N/acre (optional)
- And/or late summer (August-September) additional 40-60 lbs N/acre

* Note: For pastures or hayfields with tall fescue, high N rates increase the risk of fescue toxicosis.

To minimize nitrogen losses, ammonium sulfate or urea coated with a urease inhibitor is often preferred. Liquid nitrogen can work well too if you are wanting to apply herbicide with the fertilizer. Just be aware that you may see some nitrogen burn on the forage. Let the grass recover from this prior to bailing or turning out to graze.

**Spring Weed Management Considerations**

While perennial weed control in pastures is typically best suited for herbicide application in the fall, spring is an effective time to scout and control some winter biennial and annual weeds. Ideally weeds would be treated with a product that contains an active ingredient(s) such as 2,4-D, aminopyralid, picloram, triclopyr, and metsulfuron-methyl prior to the weeds bolting (i.e. sending up a flower stalk). For those with tall fescue, now is also the time to consider suppressing tall fescue seedheads with the use of Chaparral herbicide. Applications should be targeted when tall fescue is approximately 6 inches tall for
seedhead suppression. Always consult the herbicide label for specific instructions and pay special attention to pre-harvest intervals or any grazing restrictions.


**Category:** Crop Production

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**Crop:**

Biomass and Forage

**Tags:** pasture management hay alfalfa nutrient management weed control

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