

## Nitrogen requirements change with age

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How many fertilizer applications does your lawn need? There are several different fertilizer programs out there, but the most common are some variation of a four-step program. Usually the first application occurs in spring with a preemergence herbicide for crabgrass, then there's a summer application (sometimes with grub control), an early fall application, and a winterizer application in late fall. This can be a fine program, except for the late fall application, which is a waste, but, it may not be the best program for all lawns.

A single fertilizer application typically adds roughly 0.75 to 1.0 lbs. of nitrogen (N) fertilizer per 1000 square feet. That means a four-application program usually applies between three and four pounds of N annually. That is a reasonable amount of fertilizer for some lawns, but it may be too much for older lawns and too little for newer lawns. Some species like tall fescue needs less fertilizer than species like Kentucky bluegrass. There are even cultivar differences. We found that older cultivars of bluegrass needed less nitrogen than some new varieties. Lawns growing on fertile soil need less than lawns growing on sandy or infertile soils (i.e. new subdivisions where the topsoil is removed before construction).

Instead of sticking to a strict fertilizer program, use your eyes to tell you if more or fewer applications are needed. Here are a few general rules:

- Late-spring and early-fall are great times to fertilize cool-season turf. Warm-season grasses like buffalograss should be fertilized in early and mid-summer.
- Summer can be an essential time to fertilize with a slow release or organic fertilizer if the lawn appears yellow and are slow growing.
- Avoid early-spring and late-fall fertilization for most lawns.
- New lawns or lawns on poor soil will benefit from 3-6 applications per year while old lawns on fertile soils may need 0 to 2 applications a year. Be flexible depending on turf performance.
- Species like tall fescue and buffalograss need less annual nitrogen than Kentucky bluegrass and perennial ryegrass. Over-fertilizing these species can actually be detrimental because they favor the bluegrass and ryegrass.
- Use straight fertilizer products instead of combo products with pesticides. Use a stand-alone PRE in early spring and fertilizer with N in late-spring.

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