

Even in a black and white photograph, the effects of fertilizer can be seen, points out Dr. Robert Schery, director of the Lawn Institute. Photos B and C show the difference fertilizer makes, in combination with quality seed, in getting turf established.

Winning Turf Combination:

Good Seed, Good Fertilizer, and ...

By DR. ROBERT W. SCHERY, Director The Lawn Institute

THE ONE-TWO punch for establishing and maintaining fine turf is a combination of good lawnseed and subsequent fertilization. Neither without the other is going to make much of a show.

This is especially true of the newer elite varieties of grass now becoming so popular, — cultivars such as Fylking, Merion and Pennstar among the Kentucky bluegrasses, all bentgrasses, and even the newer fine-leaf perennial ryegrasses such as Manhattan, Pelo and NK-100.

True, those attractive fine fescues such as Cascade Chewings, Highlight, Illahee and Pennlawn do well with only moderate fertilization, being noteworthy for their persistence in shade, on poor soil and where subject to drought. But even the fescues respond well to autumn feeding, especially under trees where almost alone they often constitute the turf. Their color and density is improved by autumn fertilization, at a time of year when deciduous trees are about to shed their leaves, thus allowing more sunlight to reach the sod.

As to the affects of fertilization once these good grasses are established, the pictures pretty well tell the story. Photo A points to a very thin turf on the check plot that has received no fertilization for three years (bentgrass mowed at ½ inch). Photo B is an adjacent plot on exactly the same soil, maintained in exactly the same way except that the excellent Highland bentgrass there is fertilized monthly. Note how

> Dandelion Control



much denser and more serviceable is the turf.

At the Lawn Institute we find that the exact formulation of the fertilizer is not so important as its regular usage. Properly used almost all fertilizers do a good job, the soluble types requiring judicious application in hot weather, the "slow-release" types generally requiring stepped-up application in order to equal the response from the solubles.

In fact, on the heavy soils of the Lawn Institute grounds, adequately fortified with phosphorus and potassium from previous feedings, high-nitrogen products utilizing urea and other immediately-available nitrogenous sources (viz. Nutro 30-5-8 or 24-6-6) have been among the most responsive types and more economical than the ureaforms or natural organics.

Photograph C shows what a difference an autumn feeding can make on an established Kentucky bluegrass turf. Even in this black-white photograph it is obvious how improved the color and density is on the fertilized area where the author stands. The photo was taken in early November, after a mid-October treatment with a weed-andfeed product supplying about $1\frac{1}{2}$ lbs. of elemental nitrogen to each 1,000 sq. ft.

There may have been some slight supplementary stimulation from the 2,4-D, although the more obvious response from the 2,4-D was nearly complete elimination of dandelions in the fertilized area come the following spring.

A TTHE LAWN INSTITUTE, we've noticed that dandelions really get their start from early September until freeze up, says Director Dr. Robert W. Schery. Summer applications of weed-and-feed control the pests at that time, but the dandelion population spreads when those light, air-borne seeds a re wafted many miles in the breeze by their feathery parachutes. Settled on the lawn, most seem to strike root through autumn.

"This is proved because best dandelion control comes from October applications," says Dr. Schery, "even though the weeding weather would seem more suitable when it was warmer. Earlier weed - and - feed treatments always seem to miss at least a few late starters* (See Table I). Of course, September weeding in the latitude of Ohio is good, but October is superlative. We are talking about weed-and-feed products that contain both Dicamba (Banvel D) and 2,4-D."

Nutro Weed & Feed, made by Borden, is the product used in the tests.

"Our best turf in spring has been consistently that receiving "strong" weed - and - feed treatments. By strong, I mean one-and-a-half to double the rate recommended on the bag," he continues. Even in warm weather, a good weed-and-feed is unlikely to bother bluegrass or fine fescue used at double strength. In the cool of autumn there is hardly any danger. And is the time of year bluegrasses and fescues gain great-. est advantage from the fertilizer as well as the weed control. Nor is there danger to nearby ornamentals in autumn, such as there might be to newly budding trees and shrubs in spring. It's a great time of the year to get after the weeds, and boost the grass.

In Table I, Dr. Schery shows the advantage of an autumn weedingand-feeding. Nutro Weed & Feed saves labor anytime of the year, he says, but if there is one time when you most "get your money's worth," it is autumn. He recommends a full strength weed-and-feed application yet this year, rather than waiting until spring. Results should be more TABLE I. Results from autumn applications of Weed & Feed at the Lawn Institute as measured by spring dandelion frequency. Counts are an average from at least two test areas.

Number of dandelions May 5, 1969 per 1,000 sq. ft.

Fertilizer without herbicide		(about) 600
Weed	& Feed, Standard rate & Feed, 1½ x & Feed, double rate	60 35 35
Oct. 12 Weed Weed	& Feed, 1½ x & Feed, double rate	2 3

decisive. A bag meant for 5,000 sq. ft. used on only 3,000 sq. ft. really

Treatment

puts muscle into the product and is recommended for fall.



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