

## Ammonium Sulphate

**W**EEDS will take root and increase in a lawn that has not been supplied with enough plant food for the needs of the grass. They have longer roots and are better at foraging for food. If you apply plant food, such as Sulphate of Ammonia, you will increase the growth of the grass and it will be able to crowd out the weeds. But Sulphate goes further than this, in that it creates a soil reaction that is unfavorable to the weeds while favorable to the grass.

Ordinary weeds, such as buttercup, dandelion, crab-grass, chickweed, plantain or buckhorn, are definitely discouraged, and in course of time will disappear. The time required varies with the soil conditions, size and number of weeds, and the treatment given. One set of conditions will respond more readily than another. Both the crowding of the well-nourished grass and the changed soil reaction work toward the same object, namely, weed elimination.

### Directions for Applying to Putting Greens

Apply from three to five pounds for each 1,000 square feet of green and repeat as below. The Arcadian Sulphate of Ammonia for each application should be mixed with about a cubic yard of sand or good loam compost and spread evenly on the grass. Follow this by a thorough watering.

Three applications of Arcadian Sulphate of Ammonia should be given annually, one early in spring, one late in spring and the third early in the fall.

### Applying in Solution

Another method of applying is to dissolve three to five pounds of Arcadian Sulphate of Ammonia in 50 gallons of water for each 1,000 square feet of green and apply evenly with a sprinkling can. Water thorough after applying.

The choice between these two methods is largely a matter of convenience.

If a new green is being built mix 50 pounds of Sulphate of Ammonia with the surface soil a few days before the seed is sown. No lime should be used either in building the green or as an application later, as it counteracts the acid tendency, which is desired.

### Fairways

One of the best known golf architects in the United States recommends that Sulphate of Ammonia be used on the fairways at the rate of 200 to 300 pounds per acre each year. This should be put on in two applications about two weeks apart early in the spring, when the grass is dry.

It aids distribution to mix with about five times its weight of sand. Even without the sand, however, there is no danger that this amount will harm the grass provided it is spread evenly and the grass is dry. The fine mechanical condition of Arcadian Sulphate of Ammonia makes it possible to distribute it on the fairways through a fertilizer drill or distributor.

## How Golf Hose Is Made

By R. M. GATTSHALL

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**T**WENTY-FIVE years ago no one ever heard of a piece of hose being longer than fifty feet and great excitement was caused by the announcement that a continuous piece of hose could be made up to five hundred feet. Today we speak of this type of hose as "Molded and Braided" type.

The old construction known as the "wrapped type" consisted of three, four, five, six or seven plies of duck or sheeting wrapped upon a mandrel, each ply being first coated with a thin sheet of rubber. When this was tightly wrapped and subjected to heat the rubber would run together, but the best manufacturers could do would not permit of making an even tension on the duck, consequently, when the hose was bent sharply a kink would result and eventually a leak would appear at the kink. The hot sun on golf courses would soon dry out the rubber between the plies of such constructed hose today.

The molded and braided type is constructed in a very much different way. The tube or water-way is formed by running the uncured compounded rubber stock through a machine that looks a great deal like a large meat grinder.

The rubber is first heated to a point where it is plastic and then fed into a hopper where it is caught in a worm gear that forces it around a solid die. This forms the shape of the tube to its proper size and as it comes from the machine it is coiled on a large revolving table about six feet across. In this tube is just enough air to keep it from collapsing and sticking together.

It is now placed in a braiding machine where bobbins revolve about it braiding on the tube, threads, a good deal in the fashion a May Pole is wound up. Some times one thread is braided on, sometimes two, and naturally it makes considerable difference in the strength of the hose whether the braid is single or double.

The size of the thread also is a determining factor. After this first braid is applied a sheet of rubber is put on the hose which will act as insulation between plies and friction to hold the plies together. Then another ply is braided on. Generally two plies only are used, but in some cases more are called for.

When the required number of plies are built up the cover is applied by passing the hose through the machine the tube is formed on. The whole is then placed in cavities in a large plate mold which is operated in a steam heated hydraulic press. Sufficient air is forced into the hose to expand it against the wall of the mold and the heat and pressure causes the rubber to run together into one integral part.

This construction permits of long lengths without couplings to dig up the greens. The braided plies are put on at an angle and with an open weave which allows the rubber to run in and around each thread thereby lubricating each thread and reducing the cutting action of one thread upon another. It also makes a hose which can be bent and twisted without causing the kink which is so detrimental to hose.