

Lawn Care

REG. U. S. PAT. OFF.

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HOW WINTER AFFECTS GRASS

THE day has again arrived to start tracking down the neighborhood lawn roller. In many instances this itinerant tool strays so far from home that it winds up behind the garage of a total stranger.

While in a searching frame of mind, it is a good time to examine and diagnose the damage winter has wrought to the lawn around your home.

"Winterkill" is a term used all too frequently to explain any winter injury to lawns regardless of what the cause may have been. Asked to define it, most folks would have a difficult time but in a general way they probably associate it with cold weather. Actually cold weather, even when the mercury is huddled below zero, does not in itself harm good lawn grass. The plants go into cold storage and sometimes lose their color but they continue to live and breathe. A well fed, sturdy sod can stand all the extremes of temperature the weatherman can dish out. Some lawns are badly riddled in winter because they were sown in the spring

with annual types of grass. These succumb to the first real winter weather, the same as all annual plants. Of even worse appearance are those lawns infested with Crabgrass.

Effect Of Freezing And Thawing

Even good lawns are sure to suffer some injury over the winter months.

It isn't the cold that harms them, it's the warmth; that is, those unseasonable days when the ground thaws. Then at night the soil which is usually well saturated with moisture is apt to freeze again. As it does the crystals of ice expand and force apart the soil crumbs. During the next thaw the ice melts and the soil settles back, leaving the roots partially out of the

ground. After this process has been repeated a few times many grass plants will be heaved to such an extent that the roots are broken off or exposed to drying sun and winds. Plants need moisture even in winter and they are soon destroyed if they cannot take it from the soil.



"Hi, neighbor! I'll swap your snow shovel for your lawn roller!"

Because of this lifting or heaving of turf by alternate freezing and thawing, an open winter may be more damaging to grass than the so called old fashioned winters. Good grass is better off if it remains frozen all winter especially if it lies buried under a protective blanket of snow.

Harmful effects often result from trampling over unprotected grass in cold weather. Coasting and skiing leave no scars on lawns well covered with snow, but just walking on frozen, brittle grass that has no covering will leave footprints for months to come.

Insulating Against Thaws

Grass that goes into the winter in a strong, vigorous condition will be little affected by adverse weather. A thick sod is highly resistant to frost action because the fibrous roots bind the surface soil together and reduce heaving. A taller growth of grass shades the surface of the soil, thereby reducing the amount of thawing on mild days.

The use of a winter mulch is not ordinarily necessary but it is sometimes beneficial to young grass that did not get much of a start before cold weather. Areas having a direct southern exposure and consequently an unusual amount of freezing and thawing may also be benefited.

Such a mulch is not placed to protect the grass from freezing but to insulate the ground against unseasonable thaws. It should therefore be put on after the ground has frozen and should be scattered to a depth of 1 or 2 inches. This is easily raked off in the spring after the grass starts growing. Only clean straw should be used in order to minimize the danger of introducing weeds.

First Aid In The Spring

Any lawn will benefit by early spring attention but especially one which has had a hard winter. The dead plants

will need replacing. Food reserves that were exhausted over the winter will need replenishing. An ideal time to do this is while the alternate freezing and thawing of the soil is in process. This action of Mother Nature leaves the soil in a honeycombed condition with millions of tiny cracks and crevices. Into these the grass food will fall and easily penetrate to the root zone of the lawn. Seed will also find its way into the soil openings. It will be covered naturally and will be ready to burst into life as soon as the ground warms.

In addition to feeding and reseeding the lawn, first aid treatment in the spring should include rolling.

Spring is the one time during the year when rolling is really needed. It presses back into the soil the grass roots lifted out by frost action. It restores them to contact with moist earth so they are not subject to severe drying. It encourages faster growth during the spring season and better preparedness for summer weather.

Best Time To Roll

When to roll and how heavy a roller to use are both matters of prime importance. It is damaging to soils to roll them while they are soaking wet and just as damaging to use a roller so heavy that it actually mashes into the ground. The soil should be moderately moist and a roller of the water or sand ballast type used, so the weight can be adjusted to the soil condition. Some lawns newly planted in late fall or during the winter have only a short growth of seedlings by rolling time in the spring. Even so, if the ground is badly heaved it should be rolled. No harm is done to the young tender grass unless the soil is so wet and sticky that it clings to the roller and pulls out the plants. Care should, of course, be exercised in making turns with the roller so as not to disturb the soil too much.

Weight Of Roller

The heavier and wetter the soil the lighter the roller should be. A sandy soil can withstand more weight than a clay soil. As a general rule a ballast roller should be less than one-half full so the weight is around 75 or 100 pounds per foot in width. If in doubt use a very light roller or none at all. There is a mistaken idea that the function of rolling is to level or iron out high and low spots in a lawn. To attempt this is only courting trouble since such a severe rolling will puddle and compact the soil so the grass roots are suffocated. The way to correct extremely high and low spots is to lift the sod, adjust the under soil to the proper grade and then replace the sod. Moderately low places may be gradually built up by topdressing them with one-fourth inch of good screened soil at frequent intervals until the proper level is reached.

Good Lawns Are Hardy

The home owner who uses weedfree, perennial mixtures—who keeps his lawn well fed and cut high has little need to worry about winter damage. And neither does he have much cause for concern during the hot, dry weeks of summer. Given half a chance, a good lawn survives the seasons with surprising ability.

Why Lawns Go Bad

We reprint the following from "The Garden Digest" of December 1940. It is a clean-cut summary of the things that may cause lawns to deteriorate:

"The principal causes of deterioration of lawns are:

"1. Soil in poor physical condition, due to not being properly prepared.

"2. Poor drainage or settling, resulting in irregular cutting.

"3. Improper maintenance, such as infrequent cutting, failure to provide

plant food, too close cutting, failure to reseed thin areas, failure to roll when necessary.

"4. Presence of trees with roots near the surface.

"5. Too many trees branching low, causing heavy shade.

"6. Invasion of weeds and crab grass.

"7. Undermining by insect pests.

"8. Too constant hard use, such as play by children and pets."—The Master Gardener.

Canadian Approves Lawn Care Article

FOLLOWING the appearance of our discussion of Vitamin B₁ in September 1940 *LAWN CARE* we waited anxiously for reactions. They came in considerable number and were most pleasing. The following was received from J. H. Boyce, Turf and Plant Introductions, Department of Agriculture, Central Experimental Farm, Ottawa, Canada:

"I was favourably impressed by the manner in which the subject of Plant Hormones and Vitamins was discussed in bulletin No. 62. The little experience that we have had with these materials supports the opinions expressed in this paper. To date our experiments have not indicated that the application of hormones or vitamins has any place in turf establishment or maintenance. I think you have done well to publish this discussion."

A layman, Mr. Charles F. Snover, 744 Broad Street, Newark, N. J., had this to say:

"Regarding your report on Vitamins in the September *LAWN CARE* I used B₁ solution in water every two weeks all summer on my vegetable garden. The solution was poured on the ground at the base of the plants. Half the garden was not treated, as a control. Came September—not a bit of difference.

Mr. Snover continues: "I have had considerable success with sowing grass seed in late January or February, even on snow. Germination appears to be very good. It gets a much earlier start."

All letters received served to sustain our position and we are most grateful although we are equally interested in having reports from any persons who have noted benefits to their lawns from Hormone or Vitamin B₁ treatments. If there is something here worthwhile we want our readers to have advantage of it and if not we do not wish them to make needless expenditures.

Two New Books Available

For the benefit of those who like to delve deeper into the subject of gardening and lawn culture we are glad to introduce two books that have recently come to our attention.

Be Your Own Gardener by Sterling Patterson is a well written volume of 370 pages published by Harper & Brothers. It is written in intimate conversational style and is especially helpful to the person who wants to know the answers about home beautification without consulting a professional. The book sells for \$2.50.

Better Lawns by Howard B. Sprague, Professor of Agronomy at Rutgers, sets forth the author's theories on the building of new lawns and the combating of turf enemies. This book is published by McGraw-Hill, contains 205 pages, and sells for \$2.00.

If not obtainable at your book store or in your library we shall be glad to make the arrangements for you.

Scott Publications

Lawn Care—Subjects featured in previous bulletins include:

- 1928 Plantain, Sodium Chlorate.
- 1929 Compost, Moss, Web Worms, Iron Sulphate, Buckhorn.
- 1930 Ground Ivy, Yarrow, Earthworms, Heal-All, Ants.
- 1931 Speedwell, Creeping Buttercup, Moles, Knotweed.
- 1932 Sheep Sorrel, Quackgrass, Spurge, Trefoil, Goosegrass.
- 1933 Nimble Will, Knawel, Terraces, Shepherd's Purse, Ground Covers.
- 1934 Sedge, Shade, Purslane.
- 1935 Peppergrass, Shade, Crabgrass, Summer Injury.
- 1936 Clover, Poa Annuua, Henbit, Fall Seeding, Foxtail.
- 1937 Honeycombed Soil, Grubworms, Orchard Grass, Soils, Injury from Excess Moisture.
- 1938 Liming, Dandelions, Chinch Bugs, Burlap Protection, Wild Garlic.
- 1939 Chickweed, Mowing, Dandelions, Fall Seeding, Poison Ivy.
- 1940 Spring Lawn Program, Organic Matter, Watering Lawns, Hormones and Vitamins.

A full set of bulletins with index, in stiff paper binding, will be sent for 25c.

Binder—An attractive, loose leaf binder which contains all LAWN CARE bulletins, with ample room for future issues—\$1.00 postage paid.

Good Lawns—The amateur gardener's guide to better lawns. Contains a complete outline for building new lawns and improving old ones. Free.

Bent Lawns—Illustrated new edition. Tells about the most beautiful of all lawn grasses—Scotts Creeping Bent. Free upon request.

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