TIMELY TURF TOPICS

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VICTORY GARDENS AND THE GOLF COURSE

With canned and processed foods rationed and with great demands on transportation facilities, it becomes increasingly urgent that every possible American family raise sufficient vegetables for its own use throughout this growing season and that all surplus foods be canned, stored, or dried for use next winter.

When ground space and equipment are available the ideal place for raising vegetables for home consumption is a garden plot on the home grounds. The advantages are obvious, including time-saving and convenience.

But where desirable areas at home are not available, cooperative gardening has much to recommend it. For golf club members the golf course would seem the ideal place for cooperative gardening. Tools and equipment are already available for preparing the land for cultivation. Fertilizers, seeds, insecticides, and fungicides can be bought more economically when purchased cooperatively in large quantities. The greenkeeper may have some fertilizers containing chemical nitrogen which should not now be used on turf but which can be utilized by the members on vegetable gardens. He may have also mercurial fungicides and rotenone containing dusts which could be put to the same good use.

At the outset it should be understood that it would be very unwise to plow up important turf areas to turn them into Victory Gardens. However, there are areas on almost every course which could be converted easily and profitably into Victory Gardens for interested members without interfering with play on the course or causing any loss of permanent investment represented by turf on fairways, greens, or tees.

The greenkeeping staff might prepare the garden area as a whole for planting (including plowing, harrowing, and perhaps initial fertilizing). However, it would not seem possible for the greenkeeping staff to take care of members' Victory Gardens in addition to the turf. It would seem unwise for the staff to be obliged to neglect in any way the club's large investment in turf.

After preparation of the ground, space could be allotted to members according to their needs and crop interests. It must be recognized in the beginning by each member who undertakes a garden that it will take constant vigilance throughout the season, and that the crops probably will be gratifying to him in proportion to the attention he devotes to them.

The spirit of competition might wisely be generated by planning now to have at the club a fall garden show of fresh and canned vegetables grown on the Victory Gardens on the course. War bonds might be offered as prizes. Such stimulation will help keep up gardening morale through midsummer heat. In every group of early-spring gardening enthusiasts there will be some who may lose interest later in the season without some such stimulus as competition to urge them on to keeping their plots in good shape throughout the summer. This is emphasized because it is important that fertilizer, seed and pesticides not be wasted on garden plots which are not well cared for through to harvest.

Women members might can their garden products in the club kitchen, where large kettles and possibly other equipment such as a pressure canner are available. The task of canning, which might otherwise seem a difficult chore, might be done most easily at the club in the company of friends. This is in keeping with the early American tradition of quilting parties, husking bees, etc., at which friends and neighbors gathered together for fun while necessary work was accomplished. A competitive exhibit of canned foods at the end of the season might be worth while.

Such gardens might not only protect members from possible food shortage next winter but also "Make your golf clubs arsenals of victory," as Dr. G. S. Langford of Maryland State University told greenkeepers at a short course in January.

The ideas about Victory Gardens at golf courses have been discussed fully with Dr. Victor Boswell of the U. S. Department of Agriculture, who has prepared U.S.D.A. Miscellaneous Publication No. 483 on the subject of Victory Gardens. That publication can be obtained from your own state agricultural extension service or agricultural college, or from the U. S. Department of Agriculture, Washington, D. C. While the publication is valuable as a general treatise, most of the state agricultural experiment stations have bulletins on the same general theme which deal with crops which do best under the special climatic and soil conditions existing in their particular states. Therefore, clubs interested in Victory Gardens can probably obtain valuable assistance and advice from their state agricultural extension service.

Dr. Boswell feels that the idea of cooperative Victory Gardens on suitable parts of golf courses is sound, and that the generalizations below may be helpful in planning for them.

SIZE OF GARDENS: It is difficult to make any generalizations concerning the area required for each family. So much depends on the degree of intensity with which the plot is gardened, kinds of crops raised, fertility of soil, amount of rainfall, and many other variable factors. However, 5,000 square feet, if intensively handled and planted to crops which give a high yield per square foot of land, should go a long way toward taking care of the fresh vegetable requirements for the average family during the growing season, with some surplus left for canning.

FERTILIZERS,--GRADE AND AMOUNT: The only fertilizer which can now be bought for use on Victory Gardens is a 3-8-7 mixture known as the Victory Garden Special. If the fertilizer is broadcast over the entire garden area at the time of plowing and harrowing, probably 1,200 pounds of Victory Garden Special should be allowed for each acre. This is not the most economical way to use the fertilizer, but with labor and time at a premium it may be the desirable procedure. A more efficient use of the fertilizer will be effected when it is applied in bands near each row at the time of seeding, not more than 1 pound of fertilizer being applied to every 30 feet of row. If this method is used, each member must be responsible for fertilizing his garden as he plants it. In applying fertilizer in bands, great care should be taken that it does not come in direct contact with the seed, so as not to injure the seed or seedlings. The fertilizer should be placed in the soil in a band 3 or 4 inches wide about 2 inches from the line where the seed is to be planted and at about a 2-inch depth.

RECOMMENDED CROPS: Vegetables primarily recommended are the leafy ones which protect human health by their high mineral and vitamin content. These include spinach, kale, cabbage, broccoli, etc. Tomatoes are always recommended because of their high vitamin C content and because they grow well in many sections. String beans also are a usual garden crop.

The vegetables next recommended are the root crops which, as a rule, are energy-producing foods. These include potatoes, sweet potatoes, carrots, beets, parsnips, etc. Lima beans and sweet corn also are good energy foods, but corn particularly requires considerable space and therefore cannot always be included.

Where space is available, a valuable and interesting "new" vegetable to try is the soybean. The beans may be served as are lima beans, either green during the growing season or dried at other times. Because of high protein and fat content they make excellent meat substitutes. They are good sources of vitamins A, B and G, and of calcium, phosphorus, iron, and other minerals. Besides having high food value, they are relatively easy to grow and economical, being practically immune to such pests as the bean beetle. They are apparently coveted by rabbits, but are easily protected from them by keeping the foliage dusted with lime. The outstanding difficulty is obtaining seed. Although there are probably nearly 50 varieties of edible soybeans, most of them are not available commercially in this country.

The varieties differ widely in the length of time they require for maturity of the beans. Those which require the shortest time for maturation should be grown in the extreme northern states and Canada; those with the longest maturation period are most successful in the far South and cannot be grown in the North. Below is a list of some of the varieties most likely to be available commercially, arranged in the order of the number of days required for maturation. From this list it is possible to anticipate which varieties are likely to be most successful in your latitude. You may be able to learn from your state agricultural experiment station or any large seed house where the varieties in which you are most interested (or varieties with similar maturation periods) can be obtained.

Variety	Maturation Period (Days)
Sioux	85
Agate	90
Sac	105
Etum	105
Giant Green	109
Bansei	110
Chusei	110
Kanro	110
Hokkaido	115
Sousei	115
Jogun	118
Emperor	120
Funk Delicious	125
Imperial	125
Higan	135
Rokusun	140
Nanda	145
Seminole	165

For more detailed information regarding this vegetable, reference may be made to the U.S.D.A. mimeographed circular, "Vegetable Varieties of Soybean," which may be obtained from Mr. W. J. Morse, Division of Forage Crops and Diseases, Bureau of Plant Industry Station, Beltsville, Md.

CONSERVATION - THE ORDER OF THE DAY: If our country is to profit from Victory Gardens this season, it is vital that time, energy, and materials not be wasted. Gardens should not be started on land not suited to the purpose nor by people unwilling to follow their crops through to harvest and to utilize them without waste. The country cannot afford wholesale waste of seed, fertilizer and human energy which might result from indiscriminate planting of gardens in the enthusiasm of spring by individuals not willing and determined to carry them through to harvest. Do not use more seed and fertilizer than required. Follow seeding directions carefully, particularly directions concerning time, depth, and rate of seeding.

Tools should be conserved. Keep them in good condition and well-oiled. If club tools are used by members in gardening, the members should be reminded of their value and the importance of putting them away clean and in as good condition as when they took them out.

HARVEST AND PRESERVATION OF FOODS: Vegetables should always be collected as short a time as possible before canning. They should be harvested before they become tough and coarse. When the crop is larger than can be consumed at the time, the surplus should be canned, dried, or shared with less fortunate friends. The importance of properly preserving surplus vegetables cannot be over-emphasized either from the standpoint of conservation, or of avoiding food-poisoning which may develop as a result of consuming improperly preserved food. The U. S. Department of Agriculture's publications entitled, "Home Canning of Fruits, Vegetables and Meats" (Farmers' Bulletin No. 1762), and "Drying Foods for Victory Meals" (Farmers' Bulletin No. 1918) give explicit directions for the canning and drying of foods. These may be obtained from the U. S. Department of Agriculture, Washington, D. C. If the directions given in these bulletins are carefully followed the food may be expected to keep perfectly and not result in food-poisoning. Your own state agricultural extension service probably has similar bulletins for distribution.

MINIMUM MAINTENANCE OF GOLF HOLES AND COURSES CLOSED TO PLAY

The question of what minimum care must be given golf course turf in order to maintain the property value when holes and courses are closed to play has been raised repeatedly. It is not possible here to do more than give general suggestions and principles for possible modifications in maintenance practices. Specific questions must be answered on the spot in the light of the kind of grass and conditions of the turf, previous maintenance practices, climatic conditions, the desire of the club to reopen the course in as good condition as possible after the war, etc.

MOWING THE GREENS: An obvious method of curtailing maintenance is to mow greens less frequently. The longer the time between mowings the higher the mower should be set, particularly when the grass is growing vigorously, to avoid injury to grass from scalping. Less frequent and higher cutting encourages mat formation on creeping bent greens. In hot, humid weather the presence of the mat adds to the danger of severe attacks of disease. Therefore, if less frequent mowing at a higher cut is planned for this season, a particular effort should be made early this spring to remove any existing mat by raking the greens vigorously in both directions before cutting. In some instances it may be necessary to repeat raking later in the season before hot weather, and again in the fall, if the bent tends to mat badly when cut less frequently. Vigorous raking in hot weather, however, must be avoided.

Regardless of how much the greens are neglected, they must never be permitted to go to seed if they are stolon-planted greens. Strains propagated by stolons do not come true from seed. Therefore, any seed permitted to fall on the greens is likely to produce plants quite unlike the original strain. It would be difficult, if not impossible, to bring a green thus contaminated by seedlings back to a uniform and true putting surface without large-scale replanting.

DISEASE TREATMENTS: Where at all possible, greens should be protected from disease ravages since attacks, if allowed to develop unrestrained, will leave areas of dead turf open for invasion of clover, other grasses, and weeds. The fungicide can be used as a cure rather than as a preventive, provided a competent person is able to keep close watch for the first indication of disease. In mild or scattered attacks the affected areas may be treated or the attacks ignored (depending on the amount of manpower available) provided a close watch is kept for frequent and severe attacks, which must be treated.

Tetramethyl thiuramdisulfide (sold commercially as Thiosan) has proved an excellent substitute for mercurials, particularly when applied in solution as a spray. Moreover, the manufacturers state they anticipate that Thiosan will be available this year in sufficient amounts to supply all normal needs for the season at prices 7 to 8 percent less than last year.

FERTILIZING PROGRAM FOR GREENS CURTAILED: With no play on the course, only enough fertilizer will have to be used on greens and tees to maintain a dense turf, which is the best insurance against invasion of clover, Poa annua, and weeds. The amount applied should be reduced sufficiently to prevent a lush, leafy growth which, in addition to increasing the necessity of mowing, is more susceptible to disease. Amount and frequency of applications, however, will have to be determined for each club in the light of condition of the grass and amount of labor and material available.

WATERING CAN BE REDUCED: Greens on which grass is cut higher than for play purposes probably will not dry out so quickly as closely-groomed greens, for evaporation from the soil is likely to be reduced. However, greens must be watched carefully, particularly when there are hot, drying winds, and watered if necessary to keep the surface from drying out, with resulting large-scale injury to the grass. After a period of continuous rainfall the grass is likely to suffer from drying suddenly at the surface. In periods of abundant rainfall the roots are likely to develop close to the surface and therefore be unable to furnish the plants with water from lower depths in the dry period which follows. If at such times some water is applied to keep the surface from drying out completely, the grass will be given a chance to send its roots down into the soil and thus enable it to resist injury which might result when watering is stopped completely.

Clubs in areas which have experienced sudden increases in population beyond that which the public utilities can take care of should consider the fact that water shortages may become acute in mid-season. Use of municipal water supplies on grass probably will be prohibited in such areas. Where local streams, lakes or ponds can be tapped for watering the greens, plans should be made before an emergency arises.

In most instances watering fairways also should be discontinued or at least reduced while the course is closed. In many cases fairway turf may be distinctly benefited by reducing or even discontinuing watering. However, if excessive amounts of water have been applied in the past, it may be advisable to reduce the watering program cautiously this year, if possible. On areas heavily watered over a period of years the plants which persist require abundant moisture. Therefore, any sudden reduction in watering is likely to result in death of those plants and serious injury to turf.

A good bluegrass turf which has not been over-watered under most conditions will successfully withstand considerable dry weather. Although the grass may become brown during dry weeks, it will come back in color promptly with late summer and early fall rains, and summer weeds will not have been encouraged by excessive watering. Where watering is deemed necessary, however, the turf should be thoroughly soaked so that the soil is moist to a depth of 3 or 4 inches, in order to encourage development of roots at lower depths instead of just at the surface. Such occasional soakings at the right time may be necessary in some seasons to save valuable turf in unusually severe droughts.

MAINTENANCE OF FAIRWAYS: Grass on fairways as well as on greens and tees should be cut, not according to a time schedule but according to needs of the grass. Fairways may be mowed less frequently, but with lengthening of the interval between mowings the height of cut should be raised. Infrequent mowings at a low cut must be avoided to prevent injury to grass from scalping. All possible injuries to turf must be avoided because they may be accompanied by a prompt invasion of weeds. The height of cut may be raised to as much as 2 to 2½ inches which, from the standpoint of fairway grasses such as Kentucky bluegrass, fescues, Colonial bent, or Bermuda grass, is the most desirable height of cut. Disease attacks and weed invasion should be at a minimum under these conditions.

All fertilizing of fairways should be discontinued for the duration of the war in order to conserve nitrogen for essential purposes, including agricultural crops and turf for airfields.

GASOLINE NOT RESTRICTED FOR USE OF MAINTENANCE EQUIPMENT: According to the Gas Rationing Office in the OPA, there are no national restrictions yet on use of gasoline in power equipment necessary for maintenance of golf courses. Coupons must be obtained from local rationing boards, as for any other off-highway purpose, but there is no national Order which prevents local boards from giving golf clubs all the gasoline they need for course maintenance. However, curtailment of the amount of gasoline used for golf course maintenance may be requested by local boards. Washington authorities indicated, on the other hand, that when it is a question of needing gasoline for actual maintenance of property to prevent deterioration, there is not likely to be a request for curtailment. Therefore, clubs closed to play should certainly be able to obtain gasoline necessary to operate maintenance equipment.

ROUGH SHOULD NOT BE NEGLECTED: On courses closed to play, the rough will not need much attention but it must not be neglected. It should be cut often enough to prevent weeds from going to seed and infesting fairway turf. It is particularly important to prevent all weeds from going to seed anywhere in the environs of fairways, tees, and greens, since neither time nor materials will be available to eradicate weeds from turf. When and how often the rough should be cut depends on the kind and seeding time of prevalent weeds.

A member club has suggested that the rough be cut and sold for hay. This possibility has been discussed with Mason Hein, Grass and Pasture Investigations, U. S. Department of Agriculture. According to him, the feed value of clippings from rough would depend on the nature of the vegetation. If the better forage grasses predominate, such as Kentucky bluegrass, redtop, timothy, orchard grass, fescues, etc., the cuttings probably would furnish hay of good quality for nearby farmers. For the best hay it should be cut when the grasses are in a flowering stage or just before flowering. Farmers might also be interested in using cuttings for ensilage.

If coarser grasses predominate, such as broom sedge, clippings might still be used by a farmer for feed purposes provided they were made at a time when a silo was being filled. These clippings could be used to good advantage as ensilage, although they would not furnish as satisfactory hay as the grasses mentioned above. The British Board of Greenkeeping Research after testing for one season the preparation of ensilage from grass clippings, recommended in 1941: "Mechanical cultivation, manuring and perhaps liming of such areas (rough, consisting of neglected grassland invaded by weeds and containing much coarse and matted materials) combined with rotational grazing and cutting for silage. . . . Under these conditions the grass should be allowed to grow to a length of 6 to 8 inches." In Britain it should be remembered that many of the courses are grazed by sheep.

If rough is predominantly weedy, probably the only use of clippings by farmers would be for bedding purposes, provided there were nearby dairies which happened to be short of bedding material for cows. For this purpose rough could be cut later in the season--just early enough to avoid the maturation of weed seed.

Arrangements might be made with a nearby farmer who is interested in obtaining the clippings to cut the rough with his equipment, thereby saving labor, time, and gasoline for the club. In such a case, the farmer should understand the importance of cutting the rough before the weeds go to seed, and the greenkeeper should supervise the job.