

Mushroom Culture on a Large Scale

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A CROP that requires years of study and experience before the grower can be assured of a regular yield is mushrooms. The culture of mushrooms is somewhat uncertain from start to finish; in spite of all precautions, the crop may fall away below expectations. A grower who has had more than ordinary success is Mr. A. Collins, mushroom expert for Church & Illsley, of Falmouth, N.S., whose methods, as related to me during July, are full of interest.

Speaking from 30 years' experience, Mr. Collins stated as his belief that where most growers fail is in the preparation of the manure. The equipment required is not expensive; any cellar will do that has a dry, hard bottom. Mushrooms require darkness but the few windows in the ordinary cellar need not be darkened. The bottom may be clay, gravel or concrete. If the clay is not dry, it is best to concrete it. In addition to two ordinary house cellars, Church & Illsley have a special mushroom house, one hundred and twenty feet long, sixteen feet wide, and four feet high to the eaves. A longer house is not advisable. It is tightly built with good lumber and shingled all over. There are several doors for handling the manure conveniently, but no windows. Steam heat is used in winter. No heat is used in the cellars. A mushroom house should be as low as possible, convenience in working being a consideration.

The manure is treated by Mr. Collins for several weeks before it is put into the cellars. Only the very best horse manure is used. This is turned every day in the open for ten days, and the long straw all taken out. It is then turned every other day for a week. After that it is piled in ridges and turned once. Three weeks in all should put the manure in good shape. When ready, a handful of the manure squeezed tightly should become a solid ball, firm to the touch.

For the winter crop the best time to prepare the manure is August, although any time between April and the last of August will do. The manure is placed right on the clay or concrete in successive layers and tramped solid till it is six inches deep. The temperature will sometimes rise to one hundred and thirty degrees in two or three days, but when it falls to eighty-five degrees the spawn should be planted.

Mr. Collins prefers breaking the ordinary bricks of spawn into sixteen pieces. These are planted an inch below the surface of the manure, eight inches apart each way. The manure is tramped down solid and left for a week. After that a coating of rich, loamy soil is applied

two inches deep and pounded down till it is but one inch thick.

No attention need now be given to the beds for six weeks, when the mushrooms will begin to show. The first application of water should now be given and the beds thoroughly soaked. They should require no more water till the bulk of the crop is off. When the crop begins to die away another good watering will do till the crop is exhausted. A mushroom bed will usually crop from ten to sixteen weeks; twenty weeks is exceptional. Under good conditions a bed will yield from one to one and a half pounds to the square foot.

From seven to eight weeks after sowing the spawn the mushrooms will begin to lift. If sown in August they may run on till late in March. The dead

manure is splendid for compost. About fifteen two-horse loads is sufficient for twelve hundred square feet of bed. The temperature of a mushroom house to give best quality should not fall below fifty-three degrees and not rise above sixty-five.

It is possible to take off two crops of mushrooms in one year, if a new lot of manure is put in as soon as the old is taken out. The old bed can be renovated without taking out the manure by spreading one and one half inches dry cow manure and soil on top, tramping it well and then adding one-half inch of soil. This course is advisable only when one cannot wait to properly prepare the horse manure for the coming crop. Next to preparing the manure, the watering is most important. The two applications mentioned should be sufficient; too much water will kill the spawn.

Hints to Horticultural Exhibitors

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IN view of the rapid increase in the number of Horticultural Societies, the extension of fall fairs and the love of garden recreation in general, something timely can be penned on the exhibiting of garden produce. Competition in the garden and in the competitive hall maintains high standard of quality and promotes healthy rivalry all round.

Competition is universal. In the garden it is a continual fight between weeds and vegetables. Were it not for the weeds our gardens might not receive the necessary cultivation and we ourselves would become indolent if gardening were only a matter of sowing and reaping.

A feature noticeably lacking at recent exhibitions has been displays by our well-known seed and nursery firms. Canada's best fairs should be taken advantage of by these firms for the purpose of advertising new introductions of vegetables, fruits or flowers. The exhibitors would be recompensed by medals or certificates, and the increased business that would result from coming in contact with their customers.

UNATTRACTIVE ARRANGEMENT.

On every hand the vegetable produce is unexcelled, so the spectators inform us. By many judges, luckless competitors, professional gardeners, and those having a taste for arrangement, the conclusion reached is that the material is good, but the arrangement is most ineffective. No system is followed. This is more evident at country fairs and does not exist to such a degree at the up-to-date shows, although in the latter case the general ensemble could be improved upon also. A cabbage is placed here, a squash overlapping. Tomatoes, onions,

beets, and carrots are set down wherever most convenient to the exhibitor.

Such confusion is void of educational value or of any benefit to those interested. The exhibits should impart a lesson of improvement to the unsuccessful, so that the individual can adjust matters better in succeeding seasons. The space for each section should be set aside and distinctly labelled or else a competent man placed in charge to keep the exhibits in order.

All the entries of one class should be kept by themselves. Such a system commends itself to the judges whose duties are lightened; to the competitors, who see at a glance how they stand and profit by results for future contests, and to the spectators who can obtain a more comprehensive view of the exhibits. This is away in advance of the old method of having a first prize cabbage here and the second prize about twenty yards off.

A SLOPING EFFECT.

Collections of vegetables should command a good effect. A sloping face is necessary for the best results. Tall entries should be confined to background. There should be at least six samples of each sort with the possible exception of three hundred pound squashes or pumpkins. A few indiscriminate representatives in each class are not even worthy of name. I consider naming an important point. Neat tickets are preferable, wired several inches clear of samples.

In preparing for the exhibition, clean and trim the material well. Leave the soil in the garden; it is not required on the show board. Competitors must remember to adhere to the regulations of the prize list. If a given number of