

Mushrooms, a Rapid Growth Pa. Industry

Mushrooms are a must for many housewives to serve for Thanksgiving, Christmas and for other holiday menus and festive occasions. They are a real taste treat.

They are an inexpensive luxury that adds variety to menus, a lift to recipes, flavor to all foods.

Best of all for the calorie-conscious individual, they contain only 66 calories to a whole pound of mushrooms.

Yet, they have five to ten times the amount of niacin as carrots, spinach or tomatoes, contain more riboflavin than meat, a similar amount of protein as many vegetables and high content of phosphorous and calcium. They also contain other B vitamins, iron and copper.

They are being used more and more in combination with meats

and vegetables, in soups, for gourmet meals, relish, kabobs, cocktail snacks, raw in salads and for dips and dunks. Also many canned and frozen partially prepared foods with mushrooms are available.

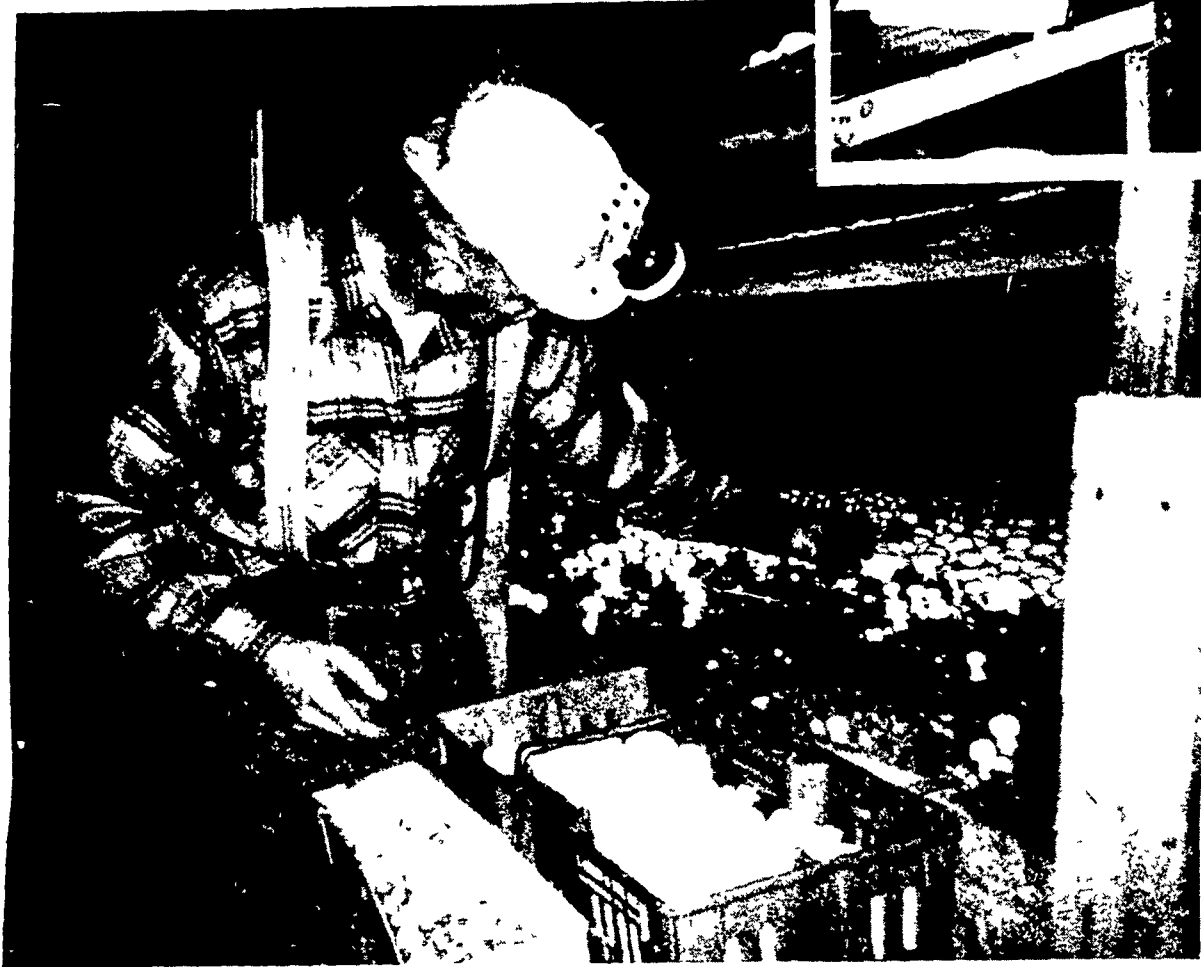
About 38 per cent of the annual mushroom production is sold fresh and 62 per cent is processed.

Of the 62 per cent processed, 45 per cent is canned, 14 per cent in soup and 3 per cent frozen and other. Canned ones are available in whole caps, sliced and in stems and pieces. They come in various can sizes for convenience.

What are mushrooms? They are not exactly plants because they have no leaves, bear no fruit, produce no flower and do not grow in soil. They are not a mineral, although they grow in



Mrs. Paul Farron is packing mushrooms into three pound baskets for marketing.



George Jackson is picking mushrooms into a 10 pound basket. He trims the bottom of the stems off as he picks.

total darkness. They are not a manufactured product, although they do appear on grocery shelves in combination with other foods in cans.

The mushroom is a fungus. A fungus grows from a spore, not a seed. These, in turn, must be induced to produce a threadlike mass called mycelium or spawn, which under the proper conditions develops edible mushrooms.

Mushrooms are sensitive and delicate organisms. No crop, including orchids, is as exacting in its requirements. They need fresh air, but cannot stand drafts. They must be grown with controlled humidity and within narrow limits of temperature margins through the various stages.

The mushroom grower is an agricultural specialist. He must be aware of diseases and insects and pests that threaten a crop. Sanitation is a necessity.

It is a confining occupation

because mushrooms must be picked seven days a week, and at the height of production require picking almost around the clock.

The House

Because mushrooms do not need light to grow, mushroom houses are built without windows, since it is easier to control temperatures within the house.

In order to get fresh air for them to grow, the houses are built with ventilators on the top.

Houses must be equipped with hot water heating systems to keep the temperature high enough in winter.

If they are to be grown year round, the houses must be equipped with air-conditioners to keep them cool enough to grow in the summer.

Houses need to have some sort of insulation near the roof. Some producers use sawdust, but fiberglass or rock wool insulation is better.

Some people use oak boards to construct the beds for them to grow in. Cypress is better, as it lasts much longer. Cypress lasts about 17 or 18 years in a mushroom house.

Most mushroom single houses are 20 by 60 feet; however, they are usually built as a double house or 40 by 60 feet. They are built of cement or cinder blocks.

Each single house contains two tiers of beds and an alley between. Each tier is six beds high, giving a total of twelve beds and a surface of approximately 4,000 square feet.

Most houses have cement floors to help cut down on disease that seems to breed more on dirt floors.

The cost of a cement block double house with insulation, cypress boards used for the beds, ventilators and heating is around \$15,000.

There is a lot of hard work as well as know-how required to grow mushrooms. It is not advisable for someone who has never worked with mushrooms to invest in the business. Nor is it advisable for a retired person to try it on account of the hard labor involved. Many hours of labor are required in practically all stages of production and there is much stooping, stretching and standing in the picking, but even more strenuous is the work of bringing in the compost and soil to fill the beds.

Preparing the House

The first step in starting a new crop of mushrooms is preparation of the mushroom house. After the old compost is

Kirkwood Woman Is Veteran Mushroom Grower

One of Lancaster County's older mushroom growers is Mrs. Paul W. (Ruthanna) Farron of Pumping Station Road, near Route 472 going into Kirkwood.

She and her former husband, the late Joseph McCrabb, built and filled their first house in 1948.

It was pretty tough going for them for a while due to the large investment and his illness. During the 7½ years after his death she was on her own and put up her second mushroom house and a dirt shed.

She sold her mushrooms in three pound baskets in New York City.

She had as high as 12 persons picking mushrooms for her. They would pick from 9 a.m. till 3 p.m. Most of them were women, but she always had one man picking.

She herself worked from 4 or 5 a.m. till 10 p.m. or midnight. She even worked around the clock sometimes to get them all picked. Sometimes her day started at midnight.

One time, she relates, a snow storm blocked all the roads and no help could get in. Neither could trucks to take them away, so she turned the temperature on the houses back to 45 degrees to slow the growth. This resulted in disease setting in and she lost the rest of the crop.

Mrs. Farron and a girl who worked for her took a short course at Penn State July 9-12, 1956 and learned a lot about mushroom production.

Farrons belong to the

American Mushroom Institute which is located at Kennett Square. Mrs. Farron was a charter member of it.

Mrs. Farron says, "It doesn't pay to hurry a mushroom crop."

We think this is good advice, judging from her yield of mushrooms. She says, "A good crop is 6,000 to 8,000 three pound baskets to a 40 by 60 foot house. You really should get 8,000 to 10,000 baskets."

She is very modest and doesn't want to be quoted, but her yield exceeds this.

From the time the mushrooms start producing you must pick them every day. After three or four months you may pick every other day. The pickers wear caps with head lights to see where to pick. The latest thing in mushroom production is an automatic picker, but is quite expensive and there is a question as to how efficient it is. Mrs. Farron is not contemplating using it.

Ruthanna married a spawn salesman, Paul Farron of Kelton, Chester County, and in 1960 they put up a building to produce mushroom spawn. They are the only spawn producers in Lancaster County. There are 14 spawn producers who supply mushroom growers in the United States, one of which is in France.

Mrs. Farron still owns the four double mushroom houses, but the past four years her brother, George Jackson, has been renting them from her. She still

helps some with the mushrooms. This year she brings the mushrooms out of the house and weighs them. Jackson sells them in 10 pound baskets to a trucker, who sells them to canning companies. Mushrooms are trucked in air-conditioned trucks. He has four pickers who help him. He likewise is a successful grower.

The price of a three pound basket of mushrooms runs around \$2.50 to \$3.50 for big mushrooms and about 50 cents less for smaller ones. This compares to \$1.00 to \$1.25 Mrs. Farron received when she was first in the business. Then they only received 80 cents to a dollar for soup purposes. In the meantime cost of production has gone up comparably to the price of the mushrooms. Foreign imports have hurt the sale of mushrooms somewhat.

Ruthanna is the daughter of Leavin Jackson who lives next to the Farrons. He owns two mushroom houses next to hers. He owns steaming equipment which he uses to steam his own houses and Mrs. Farron's which George Jackson rents. Farrons also have equipment so between them they have all the necessary machinery to clean and steam the houses and to turn the compost before it is put in the houses. This works out fine for them, since their mushroom houses are on adjoining land.

Mushrooms are not different from other agricultural crops in

that there are many diseases and insects which can attack them. It is very important to use every precaution before planting new spawn to prevent them in preference to trying to cure diseases. Some of their enemies and diseases are pigmy mites, histomites, red spider, sciarid fly, phorid fly, cecid fly, eel worms or nematodes, mummy, X disease, brown spot and spring tails.



Ruthanna Farron holds a prized piece of cut glass.

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