

# Farrons Operate Mushroom Spawn Lab

The only mushroom spawn making laboratory in Lancaster County is located on Route 472 at Kirkwood and is owned and operated by Mr. and Mrs. Paul W. Farron.

Mr. Farron came from Kelton, Chester County, in the heart of the mushroom country. He is a highly skilled and trained laboratory technician who knows the business from A to Z.

His good wife, Ruthanna, helps him with every phase of the operation except one. They produce three kinds of spawn—combination spawn, plain manure spawn and grain spawn.

Their spawn not only is sold locally, but is flown to distant places such as Florida, California and Canada. They advertise in the magazine put out by The American Mushroom Institute.

A spawn making laboratory operates under conditions as sterile as a hospital operating room. The Farron lab is probably the most interesting and fascinating place you could imagine.

Mrs. Farron says the question that is asked the most is "How do you get started with the process?"

Mr. Farron has a very interesting exhibit to show folks, which he explains very well. He has a plastic case about three inches in diameter and about two inches high. In it he has a large mushroom that just fits in and you can look underneath the mushroom and see the gills. They are the thin, brownish, leaflike, radiating plates on the underside of the mushroom. Did you really ever think of them having a purpose? Well, they hold the invisible little spores from

which new growth develops.

First you select a large perfect mushroom. Sometimes one that looks perfect on top is not perfect underneath. The little gills must be straight. You clean the mushroom with a mercury bichloride solution. Cut the stem off with a sterilized knife.

A small section of the gills is removed and the spores are taken from the gills of the mushroom and placed on a nutritive agar in a sterilized test tube for germination.

It takes about six weeks for the spores to germinate into culture stage. The culture is pretested before the spawn is made up from the culture.

Then they are transferred from the tube to bottles of grain.

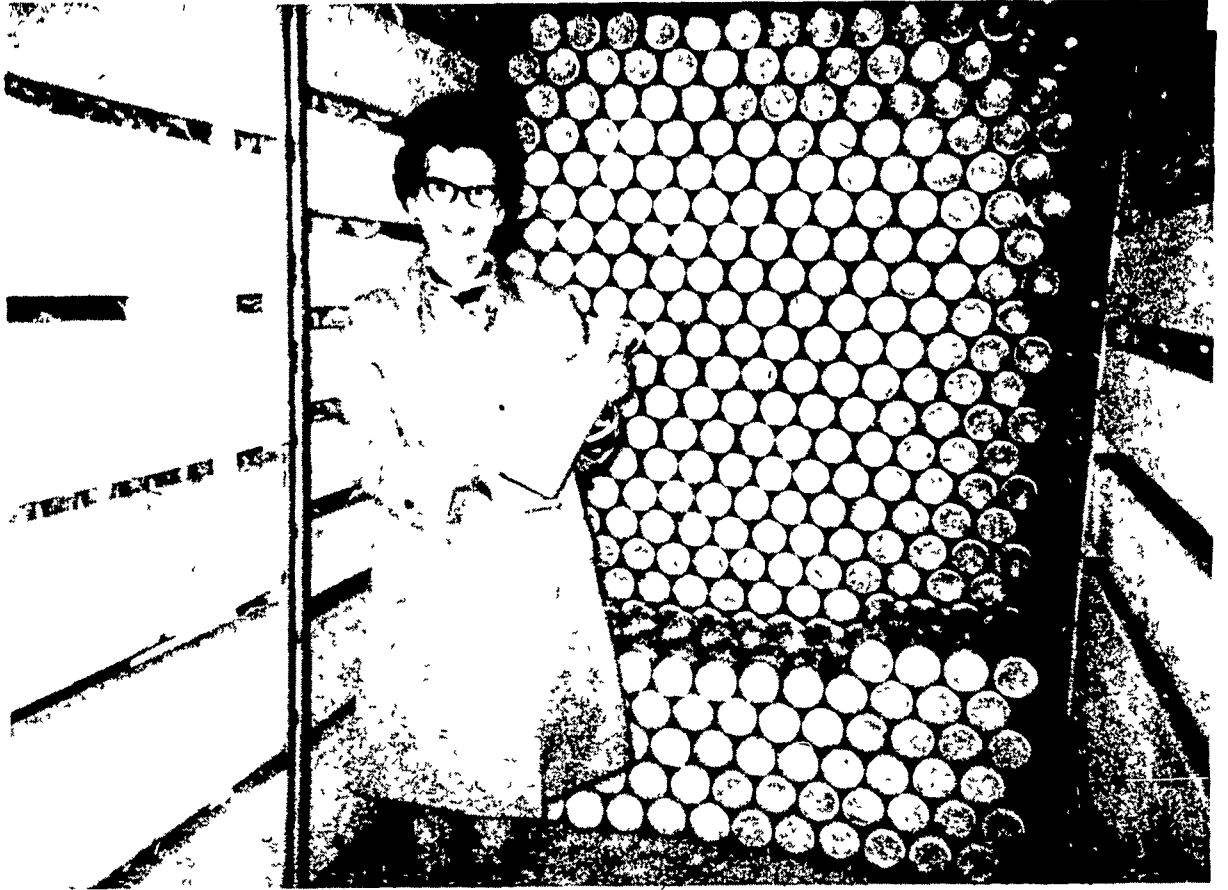
Previously the grain (wheat or milo or rye) is soaked in water by a very special process until it has the right moisture content. There are two types of medium—grain or manure.

Next it is put in bottles, the bottles put on iron cars, and sterilized in a retort at 15 pounds steam pressure (250 degrees F). Manure is sterilized four hours and grain two hours. The retort holds 700 bottles or three cars of bottles.

Then the cars are taken from the retort into the cooling room for about 48 hours.

From there they go to the inoculating room which is kept free from germs by germicidal lamps. Two technicians, wearing white masks, caps and gowns inoculate the grain. The open end of the bottle of grain or manure is held over a Bunsen burner to keep everything sterile while inoculating.

Prior to inoculating, the bottle



Mrs. Farron holds one of the bottles stored in the 32 degree storage room.

of medium has been put on a boring machine and a hole drilled into the center of the medium.

The inoculated bottles are put on an agitator to mix the culture through the bottle. It is then put on racks and in eight days the bottles are shaken again. This growing room is held at 75 degrees.

At the end of the next seven days it is ready to go in cold storage or to go out to the grower. It is stored at 32 degrees temperature.

Farrons make more of the grain culture than the manure culture, according to demand.

A bottle of spawn plants on the average of 30 to 33 square feet of bed space in the mushroom house and costs 65 cents for a 45 ounce bottle.

Before it goes to the grower, the grain spawn is removed from the bottle and put in a paper bag. For the manure spawn, the bottle has to be broken before the spawn can be removed and put in paper bags. This means the loss of those bottles. The bottles used for grain spawn can be used again.

Before winter sets in Mr. Farron has to have horse manure put in the building so it is available. He gets it from growers of mushrooms.

Mr. Farron tests the pH of manure, also to determine if any nematodes are in it, for the growers.

Mrs. Farron helps with all the

operations in the spawn making lab except preparing the grain to be used. She does a lot of inoculating, gets orders ready, uses the boring machine and sends out bills. The only other help they have are some teenage boys to fill spawn bottles with manure.

When Mrs. Farron isn't working in the spawn lab, the mushroom house or keeping house she finds time to address the church presses for the Union Presbyterian Church where she is a member. These go out every

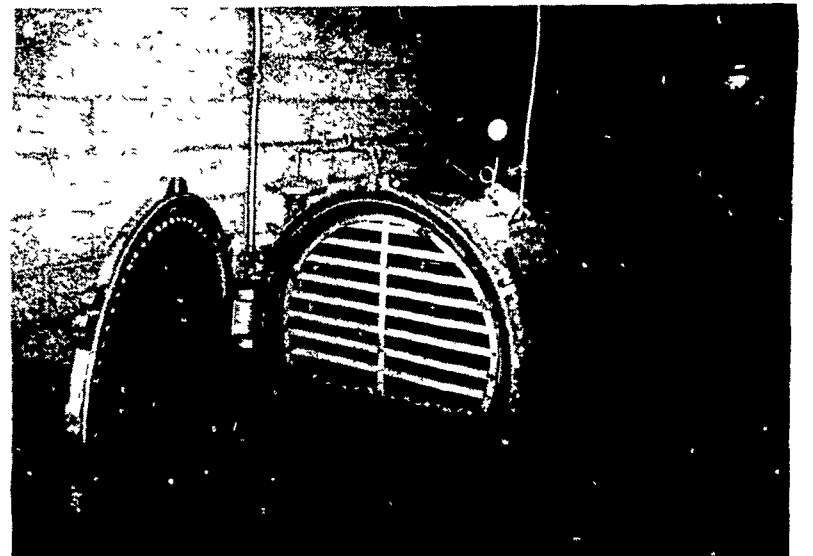
Saturday morning to all the members. She has taught a Sunday School class there in the past also.

Her main hobby is collecting cut glass pieces. She has many beautiful ones.

She says, "I love to knit." She has made three or four afghans, and several sweaters for herself, her husband and her father. She took a course last winter in painting from Charles X. Carlson at Kirks Mills.



Paul Farron is inoculating bottles of medium with spores.



This is a sterilizer or retort—where they put cars of bottles of grain or manure for spawn. Grain is left there two hours and manure for four at 15 pounds of steam pressure. The retort holds three cars or 700 bottles.

## Mrs. Farron's Favorite Mushroom Recipes

Mrs. Farron emphasizes that mushrooms should be washed before using, but "do NOT ever peel them." These are some of the ways she likes them:

### TO SAUTE MUSHROOMS

Use heavy skillet with plenty of surface. Do not stack slices or caps. Allow at least 2 tablespoons butter to half pound mushrooms. Keep heat medium and turn with broad spatula or pancake turner. As edges begin to brown lightly and the mushroom turns golden, turn and watch closely. Do not overcook. They should never be black and rubbery. Salt with light hand, and take out of skillet as they are ready. May now be used in sauces, omelettes, casseroles, meat pies, pizza and spaghetti. Of course, they are ready and right for chicken, fish and veal; also stews and many beef servings.

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### MUSHROOM FILLING (STUFFING)

(For 4-5 lb. chicken or turkey)  
2 cups stale bread cubes (4 bread

slices)  
1/8 cup chicken stock or water  
1/4 cup melted butter or margarine  
1/4 teaspoon salt  
1/8 teaspoon pepper  
1/8 cup finely chopped onion  
1/4 cup finely chopped celery  
1 1/2 cups chopped mushrooms (fresh or canned)  
3 tablespoons butter or margarine  
1/8 teaspoon grated nutmeg

Mix the dried bread cubes with the stock or water and the melted butter. Add salt and pepper. Sauté the celery and onions in the 3 tablespoons butter; add the mushrooms and sauté them; sprinkle with the nutmeg. Add to other ingredients and mix well. Stuff loosely into the cavity of the chicken and truss. For 12-15 lb. turkey, increase ingredients three times; for larger birds, increase proportionately.

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MUSHROOMS IN CREAM  
2 4-oz. cans mushroom stems and

pieces  
1/4 teaspoon salt  
1/2 cup evaporated milk  
2 tablespoons flour  
1 tablespoon butter

In saucepan, bring mushrooms to boil in own liquid. Add seasonings. Combine flour with milk in cup, add to mushrooms. Reduce heat to simmering and continue to cook for 5 minutes. Add butter and mix well when melted. Add 3 or 4 slices white American cheese. Melt and serve. Serves 4 to 6.

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### TEENAGER SHISH KEBAB

Mother prepares the meat, lays out the skewers and leaves the kitchen to the gang with instructions to clean up after the fun. Chicken livers are favorites, beef is next and lamb a runner up. Cut one and a half inch chunks of beef from shoulder or from sirloin or top round. Marinate in plain French dressing (3 parts oil to 1 of

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Mrs. Farron is starting another afghan. A completed one is on the sofa and one of her sweaters is on the sofa arm.