AGRICULTURE

Fryers In Any Season

Agricultural scientists are producing fluffy chicks at all seasons of the year, hens that lay the year-around, eight-pound turkeys and broad-breasted poultry.

By A. C. MONAHAN

See Front Cover

➤ FLUFFY LITTLE CHICKS and Easter both come in the Spring. Easter is at the height of the natural hatching season. It is also at the height of the normal laying days, which perhaps accounts in part for the heavy use of eggs at Easter for Sunday morning breakfast, customary in some sections, and for the Easter Monday egg-rolling.

But the association is, perhaps, diminishing. Agricultural scientists seem never content with nature's ways and are producing fluffy little chicks at all seasons of the year so frying chickens will always be obtainable. They are producing hens that lay the year-around, eight-pound apartment-house turkeys, and broad-breasted poultry with more white meat. Fluffy little chicks, like the one in the staff photograph on the front cover of this SCIENCE NEWS LETTER, will grow into hens that lay 300 or more eggs a year.

Since science has entered the poultry field in the serious way it has in the past three decades, the former barnyard fowl has given first place in the poultry world to those on the modern chicken farm, where everything else takes a back seat to the poultry.

This does not mean that ordinary farmers are no longer raising eggs and poultry meat. Practically every farmer still has a flock, and some farmers have large flocks as a sideline to their dairy, beef or cash crop farming. It does not mean that village folks do not have their backyard chickens. It means that in widely scattered sections of the country, specialized poultry farms with thousands of chickens, or ducks, or geese, or turkeys are in operation, and all activities center about the poultry.

Cross-Breeding

There is little similarity between the modern hen and the miniature jungle fowl which provided the first skimpy chicken dinner some 5,000 years ago, and which still may be found in certain out-of-the-way places. Ever since the early colonists brought poultry to the Western Hemisphere there has been improvement by selection and cross-breeding. Nearly 100 years ago America had produced stock claimed to be superior to the usual poultry of Europe, by crossing birds brought by sailors from the Far East, the original home of the hen.

It is only within the past half-century or so, however, that scientists have given special thought to raising poultry as a commercial enterprise, only within the past generation that a special effort has been made to classify poultry information into a real science.

The growth of poultry courses in the state colleges of agriculture is an indication. The New York College of Agriculture at Cornell University established a regular course in poultry in 1891. Rhode Island State College gave the first specialized course in the country in 1898. By 1904, ten of the colleges had courses in poultry husbandry. For the past two decades or so all agricultural colleges have had collegiate courses, and short and extension courses as well.

This is not intended to convey the idea that poultry scientists are all college-connected or that all the advancement in poultry husbandry has been made by the agricultural colleges and the experiment station affiliated with them. Some of the most important work has been done by farmers and others specializing in poultry, many of whom, though not all, were college trained. Experts of the U. S. Department of Agriculture deserve special credit. Some of the most progressive results have been obtained from work at the U. S. Department of Agriculture's poultry farm at Beltsville, Md.

It was at this farm that the lightweight turkey suitable for small families was developed. Some of these birds have proved to be excellent layers that produce three or four times as many eggs in a year as do ordinary birds. Its eight-pound turkey will prove popular to apartment-house dwellers, and some day turkey eggs may sell on the market side by side with hen eggs.

Perhaps the first object of the poultry scientists was to breed hens with vigor to withstand the vicissitudes of life that are at the same time good layers. In this they have succeeded. Some 30 years ago a hen that produced 200 eggs in a year achieved state-wide fame; today, 300-eggs-a-year hens are becoming commonplace.

Efforts now seem to be focused on developing a better meat-producer, particularly birds with broader breasts and more of the highly favored white meat, but also with "meatier" drumsticks and wings. Breeders are following the footsteps of their fellow scientists in beef and hog development, who have succeeded in more than doubling the weight in usable meat on their animals.

The broad-breasted turkey is here and will soon become plentiful; the broad-breasted chicken is on its way. Promising results have already been obtained. Breeders have learned that the descendants of the common hen can be made to acquire new forms and colors. They developed the feeding and breeding formula that has added 30 eggs to the average hen's yearly production, and have found that in no branch of animal husbandry can results be obtained so rapidly as in the poultry industry.

An organized search for a hen that will have at least 10 per cent more meat than its present-day counterpart is un-

der way. It is headed by some 25 well-known poultry scientists with an equal number of sub-committee members and 600 poultrymen from all parts of the United States as advisers. The activities are financed, and awards will be given, by the Great Atlantic and Pacific Tea Company, which has a particular interest because of the tremendous amount of poultry products it handles each year. The undertaking, known as the Chicken-of-Tomorrow program, is a three-year undertaking covering 1948.

There are present indications that many war veterans, taking advantage of the GI Bill of Rights, desire to purchase land suitable for raising poultry and become chicken or turkey raisers. It is a good business for those with proper training. Poultry producing, in cash returns, is America's third largest agricultural industry. It brings in over $2,650,000,000 a year.

It is now producing considerably over an egg a day for every man, woman and child in the country, and also about 25 pounds of meat per person, but there is still room for expansion. Poultry and eggs are rated among the seven basic foods for the American diet, being rich in proteins, minerals and vitamins.

Double Consumption

Double the present consumption could well take place because, as every housewife knows, eggs are invaluable in many household kitchen dishes. Also there is room for an expansion in the export trade, particularly for dried eggs.

The common idea that anyone can raise poultry may be true, but whether or not they can do so successfully and secure an income is another question. Business men, professional men, sailors and admirals facing retirement, are common among the persons who look forward to a life of ease raising poultry.

As a hobby, a little chicken farm is a good idea. Some will be very successful. To be successful both brains and long hours of hard work are required, but no person seems to love his job more than the poultry lover with poultry instincts.

The veteran considering the poultry business as a means of livelihood needs to know what he is facing. If he likes poultry and long hours of work, and has a degree of training, he will probably succeed. Poultry farming is one of the best paying agricultural enterprises for the man who makes a go of it.

The fact that it is a 365-day-a-year job is an advantage if help is employed. It is year-around employment for the owner and the helper. Another advantage is that the business, except with turkeys, brings in cash every week. But even the turkey business is no longer just a Thanksgiving-and-Christmas seasonal market; the turkey demand now stretches over many months since Americans have learned to eat the bird at other times.

The job requires training. It is particularly important that diseased birds, and there are about 100 major diseases, be spotted in the daily inspection of the flock so that those with infectious difficulties can be removed before others are contaminated. Training in one of the state agricultural colleges is desirable, but if this can not be had, the next best procedure for the man without poultry experience is to get employment for a year on one of the large modern poultry farms, and supplement the practical experience with reading and perhaps with college correspondence courses.

Science News Letter, April 20, 1946

INVENTION

Rear View Mirror for Day or Night Driving

➤ A REAR view mirror for automobiles that gives clear vision in the daytime and glareless images from the brightest lights at night is the subject of patent 2,397,947, taken out by William H. Colbert, Brackenridge, Pa. The wedge-shaped mirror has two surfaces, one of relatively low reflectivity and transparent and the other a better reflector but opaque.

The front surface, the poorer reflector, is for night driving, while the back surface is for daylight. The driver can adjust the mirror for night or day driving by slightly tilting the mirror.

The patent has been assigned to Libbey-Owens-Ford Glass Company, Toledo, Ohio.

Science News Letter, April 20, 1946

CHEMISTRY

Modified Amino Acids Act Like Penicillin

➤ SOME MODIFIED forms of amino acids, instead of nourishing bacteria, check their growth more or less as penicillin does, Dr. Sydney Fox, and associates, of Iowa State College, told the American Chemical Society. One in particular, 3-amino tyrosine, was effective against *Staphylococcus aureus,* the germ of boils and some types of food poisoning, and at the same time was only slightly poisonous to white rats to which it was fed. This, of course, is what biologists seek of an antibiotic: to knock out the germs without making their victim sick.

Science News Letter, April 20, 1946