

## Production tested of Pilgrim geese

LA POCATIERE, Que. — Egg production of a flock of Pilgrim geese under test at CDA's research station at La Pocatiere rose sharply from the birds were two years old and did not start to taper off until after age four and five.

The eggs were larger and weighed 28 per cent more in the second year than in the first and were still heavier in the following years. The experiment was not continued beyond five years of age when it was judged that the economical life of the flock had been expended.

Fertility, measured by the number of fertilized eggs laid, decreased with age. It was 12 per cent less in the second year, 52 per cent less in the third year and 74 per cent less in the fourth and fifth years than it was in the first year.

On the other hand hatchability, meaning the ability of fertile eggs to hatch, increased 33 per cent in the second year and remained fairly constant.

Usually, decreasing fertility and low hatchability go together but the fertility in this case seems to have been influenced by factors other than age, reported J. A. Antoine Lemay, poultryman at La Pocatiere.

For instance, the weight of the ganders after they were two years old, increased greatly during the winter and presumably reduced their mating urge.

The flock of 20 males and 100 females were divided into pens each occupied by one male and five females. They remained there from December 1 to July 15 each year. Except for the winter and the laying period the entire 120 birds shared a pasture but did not at any time have access to running water or a pond. The flock received a growing ration once a day while on pasture and unlimited breeding mash while housed.

Both males and females lost some weight while on pasture but took on a lot of weight in winter. The ganders especially took on considerable weight in winter and maintained it through the breeding period.

Geese are different from hens in that they perform better after the first year, said Mr. Lemay. Egg production and incubation results in the first year do, nevertheless, provide sufficient information for the selection of breeding stock.

The La Pocatiere tests were

## Research provides aid to agriculture

Does money spent on agricultural research net a worthwhile dividend?

Definitely yes, says a CDA research official. And he has a billion dollars worth of evidence to support his opinion.

The official is Dr. A.E. Hannah, director of CDA's Research Station at Winnipeg. It was here that the rust-resistant wheat variety Selkirk was developed, and introduced in 1954, a year when rust losses were beginning to reach serious proportions in Manitoba and eastern Saskatchewan.

Last year, researchers grew Selkirk, the partially rust-resistant Thatcher, and the susceptible Marquis on large experimental plots at Winnipeg. It was, says Dr. Hannah, a potentially bad rust year.

The comparison tests gave a dramatic indication of the benefits afforded growers by the resistant Selkirk — and by research.

On the basis of an estimated cost of operation at \$20 an acre, Marquis yielded 2.6 bushels per acre for a net loss of \$15.67; Thatcher yielded 17.3 bushels and a return of \$9.34 an acre. Selkirk's yield was 20.6 bushels for a return of \$15.97.

Selkirk acreage in Manitoba and eastern Saskatchewan amounted to 58,368,960 for the 10-year period 1955 to 1964. At least six of the years would have been disastrous for growers had it not been for the availability of a rust-resistant variety. Dr. Hannah points out.

Using last year's test results as a reasonably accurate gauge, Selkirk during the decade returned \$306.9 million more to growers than they would have received from Thatcher. Compared with Marquis, Selkirk benefited growers by an even more startling amount — about \$1.8 billion.

Only recently, the Winnipeg Research Station named a new variety — Manitou — that has even greater resistance to rust than has Selkirk.

Dr. Hannah offers some more statistics:

The estimated \$306.9 million value of Selkirk over Thatcher during the past decade is sufficient to:

- Pay the cost of the Winnipeg station's 40 years of operation 13 times over or;
- Pay for the operation of the entire CDA Research Branch for 10 years.

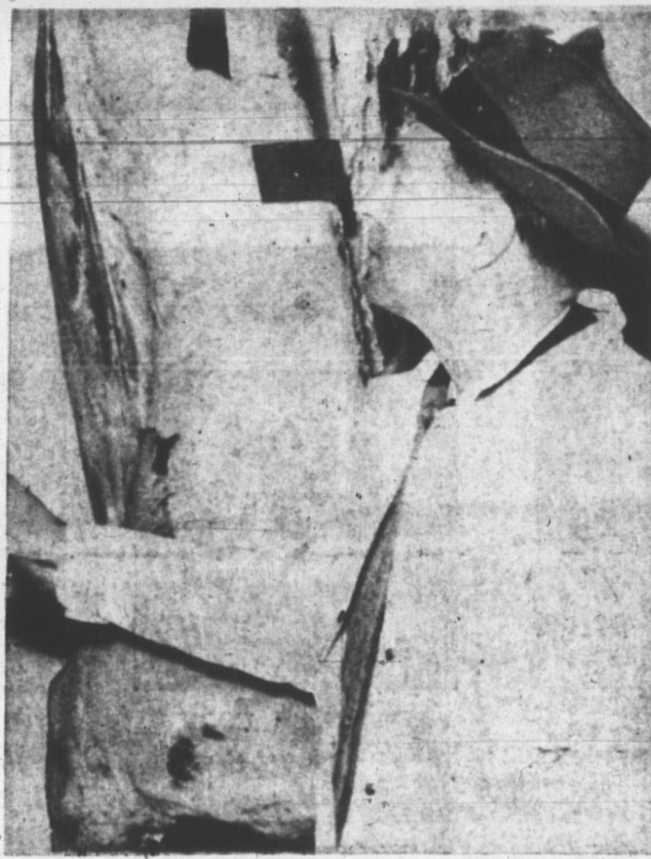
## PAIR OF PURE-BRED YORKSHIRES

These two pure-bred Yorkshire gilts are among the more than 250 Yorkshires Stirling Willis has in his establishment at Kingstons. One of the Island's best known Yorkshire breeders, Mr. Willis is not sure exactly how many pigs he has at

any given time, as litters come, sales are made to pure bred breeders and other hogs are sold in the regular commercial outlets. He has hit as high as 95 percent Grade A carcasses in finished carcasses.

## ROP qualifications are first requirement of breeding hogs

The development of the Island Yorkshire over more than a quarter of a century was reviewed by Harold C. Hertz, Livestock officer, Canada department of agriculture. Mr. Hertz was speaking last year to a group of fellow livestock officers at a meeting in Moncton, N. B. Mr. Hertz spoke in part as follows:



HAROLD HERTZ VIEWS PRIME EASTER BEEF

The program on Island swine has been characterized by considerable change during these last 25 years. To give the story of the present without reference to the past programs would not be showing the whole picture. In 1940, when rail grading was introduced on a compulsory basis for premium payments, it was decided that the seed stock on the Island was superior to what was available elsewhere. This acceptance, along with the fear of introducing diseases still unknown in the province, was enough to convince many leaders in the industry here that some kind of control was in order. Briefly, it may be pointed out that during the war years it was decided by the swine breeders to make no further importations of breeding stock, and the testing of the breed of "Island" Yorkshires as the one breed adopted, was intensified.

ROP qualifications became the first requirement of all breeding stock. The show ring became a secondary consideration; however, the Provincial Exhibition was well patronized and, in 1947, rules were adopted by the Swine Breeders Association which restricted this show to entries "qualifying" on ROP or their progeny.

During those years testing in the province was most enthusiastically carried on with more than 125 breeders taking part. Meanwhile ROP testing of swine did not catch on in the other provinces and a ready export market opened up for breeding stock from Prince Edward Island. The lead in the percentage of "A" grades was taken early by this province and by 1950 had exceeded 50 percent, while after 10 years of rail grading, the Canadian average remained about stationary at approximately 31 percent.

ISLAND LEADS

The volume of testing had reached such a scale that, during 1950, over one-half of the sows in Canada finishing tests with scores of 75 or over, were in Prince Edward Island.

While participation in the show ring at the Royal Winter Fair was not encouraged by the directors of the Island program, many entries were made in the carcass competition in the early 1950s, with the bulk of the winnings coming to the Island region, including both the Brethour and Todd trophies. (Both trophies indicate supremacy in bacon side quality).

However the distance from the Royal, together with the lack of interest on the part of the national farm press in these classes, were factors which resulted in the discontinuance of further participation on any large scale.

In 1960 the policy of our office to handle sales for breeders and take orders for export was terminated. The other provinces, meanwhile, began testing and with their potential numbers, exports from this province quickly fell off. Breeders now took a deep breath and asked themselves the question, "Where do we go from here?" They decided to examine some of the physical weaknesses which seemed to develop along the way. Close line breeding over the years in many cases resulted in lack of vigor, and weakened feet and legs. The presence of disease in some sections became evident, while most breeders concerned went along with the over-all program during this time. Nothing is perfect or one hundred per-

cent in all phases of endeavour, and it became only a matter of time until outside breeding stock and new breeds were introduced.

The provincial department of agriculture brought in breeding stock, including both sexes, of the large White Yorkshire breed from England to cross with Island stock. ROP rest results from this cross were discouraging and left little incentive for expansion.

ATTRACT INTEREST

The Landrace breed introduced on a small scale about eight years before, at which time drawing little attention, now began to attract real interest. This breed has been tested intensively since 1960 and today 10 breeders are on ROP and showing results exceeding the average of the Island Yorkshires.

At present, space at our 32-pen test station is being used by approximately 30 Yorkshire breeders, 10 Landrace breeders and two Lacombe breeders. As we move toward more cross-breeding in the commercial production of hogs in Canada, this province with three breeds now on test is in a better position than ever before to go along with this program. Quality as expressed in percentage of "A" carcasses has remained at a high level and is presently holding around 57 percent. Policies affecting swine production in the Island region as of the 1960s:

1. Boar bonus policy—Boars of any breed whose dams have scored 75 or over on POP are eligible for a purchase bonus of \$40, and \$15 per year afterwards providing the boar is a proven breeder at the time of first inspection.

2. A premium of 50 cents is being paid to producers of weanling pigs sired by a bonused boar. Bonused boar owners were issued books of certificates by the P.E.I. department of agriculture in 1962, and these were made out to sow owners at time of service, the premium being paid by the purchaser of the weanlings. The number of boars in service December 31, 1962 was 107. By the end of 1963, the figure had reached 183.

3. Sows financed for producers by packers must be bred to bonused boars as a matter of packer policy.

Volume of production is expected to rise but must be tied to the increase in grain production on Island farms. The local department of agriculture and

1951, there were slightly over 10,000 farms with generally smaller sizes than in 1961, as the trend to larger farms becomes evident. However, some of the "abandoned" farms during this process have not continued to produce crops so we can only conclude that economic production of beef here on an expanded basis will depend on crop yield.

### PICTURE NOT DARK

The picture is not entirely dark, since hay and pasture production is rising and vacant farms not now producing will probably be brought into yielding crops as economic conditions permit. The pasture improvement program of the P.E.I. department of agriculture is showing definite results. Hay tonnage per acre has been increasing and, despite the fact that the province is on an import basis for grain, a cattle production increase of some proportion may well become a reality.

During September of this year, a Beef Promotion Fieldman was appointed by the local department of agriculture, and the emphasis now seems to be on the elimination of the Utility grades of steers and heifers, and the production of more Standard and Commercial grade cattle. Less stress is placed on the marketing of Choice and Good as a profitable endeavour, bearing in mind the narrow difference in price between these grades and the Standard.

The A.I. program inaugurated in 1956 is contributing much to the elimination of the poorer grades of beef. Approximately one-half of all cattle of all breeds are artificially inseminated in this province, and around 45 percent of these are bred to beef bulls. Many of the progeny resulting from this beef-dairy cross are ending up on the rail as Standards, while some are making the Good grade.

In addition to basic grants of \$300 to each breed of cattle, plus \$3 per calf registered in the herd book the previous year, a sire purchase policy, allowing for the payment of 50 percent of the purchase price on bulls up to \$100, is provided by the provincial department of agriculture. In addition to the financial assistance is given in the purchase of special semen from selected sires for breed improvement.

There is no participation by beef breeders here as yet on Record of Performance. Eighty-three dairy cattle breeders are on test, with breeds of Holstein, Ayrshire, Guernsey, Jersey, Shorthorn and Red Poll, in that order of numbers involved.

### SHEEP AND LAMBS

The Lamb Premium Policy and Wool Deficiency payments are programs carried out by our department. Joint policies by the Canada and provincial department of agriculture encourage the use of good sires, while financial aid is provided by the latter department in parasite control and in cases where sheep are killed by dogs. All the above programs have failed to halt the decline in numbers of sheep on our Island farms. Marketings have fallen off steadily this last five years from over 12,500 in 1959 to 8,872 for last year (1963).

Lack of interest by commercial producers to procure graded sires is demonstrated by the fact that of 62 rams graded in 1962 only 22 were purchased under the ram premium policy, while of the 43 rams graded in 1963, only 19 were purchased under the policy. This year 59 rams were graded, the number acquired by breeders is not available yet.

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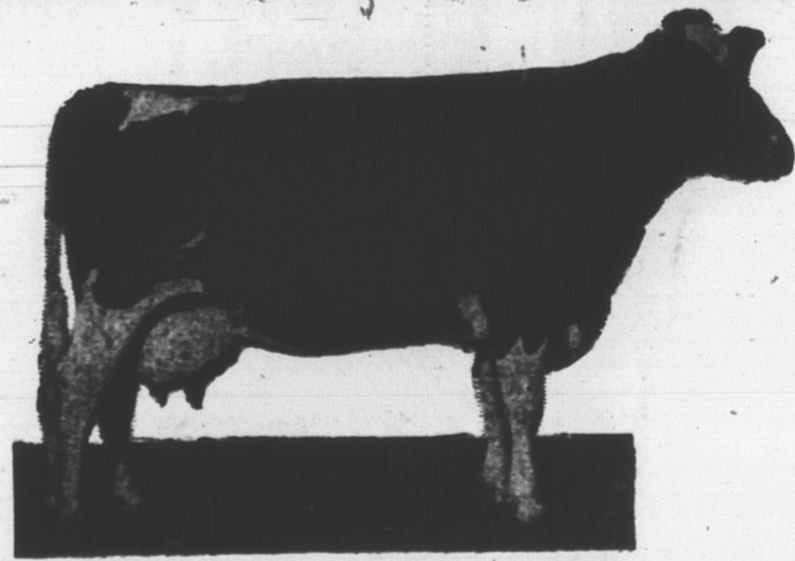
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