

Corn Experiment in Lincoln County

EDITOR "THE FARMER'S ADVOCATE":
Under the auspices of the county branch of the Ontario Department of Agriculture, a corn variety test was conducted on my farm in Lincoln County this past season with a view to ascertaining the variety of silage corn best suited for the Niagara Peninsula. The corn was all planted on June 4, and cut on October 4. Following are the comparative results:

BAILEY.	
Weight at cutting.....	11 lbs.
Dry weight, two weeks later.....	7 lbs.
Maturity of ear at cutting.....	late milk
GOLDEN GLOW.	
Weight at cutting.....	8 lbs.
Dry weight two weeks later.....	5 lbs.
Maturity of ear at cutting.....	dough stage
WHITE CAP YELLOW DENT.	
Weight at cutting.....	8 lbs.
Dry weight, two weeks later.....	5 lbs.
Maturity of ear at cutting.....	ripe
WISCONSIN NO. 7.	
Weight at cutting.....	18 lbs.
Dry weight, two weeks later.....	12 lbs.
Maturity of ear at cutting.....	ripe
LONGFELLOW.	
Weight at cutting.....	11 lbs.
Dry weight two weeks later.....	9 lbs.
SALZER'S NORTH DAKOTA.	
Weight at cutting.....	11 lbs.
Dry weight, two weeks later.....	8 lbs.
Maturity of ear at cutting.....	ripe

Wisconsin No. 7, therefore, appears to be the most vigorous and able to withstand the drought better throughout the season than any of the other varieties.
Lincoln Co., Ont.
ROBT. W. DOUGLAS.

Britain Getting Anxious.

The effect of the labor troubles in the U. S. A. is being felt upon the food situation in Britain. Shipments of the new "pack" of bacon have been delayed by the strike. The British Government's imports from the States are chiefly wheat, butter and bacon, together with eggs and dried fruits in small quantities. Canned meats and fruits, condensed milk, wheat and oatmeal products are largely imported on private accounts. American wheats are now due to come forward in considerable quantities.

The St. Lawrence ports of Canada will soon be closed by ice, leaving only Halifax and St. John available, and these are places without facilities for handling large grain shipments. It is customary in the winter for much Canadian wheat to come to England through the United States, and so, if transport is obstructed and the situation becomes more serious, special measures will have to be taken to maintain our rather limited stocks. Grain would probably have to be given preference by the Ministry of Shipping in the arrangement of freights.

The British Ministry of Food is buying butter to the value of £1,500,000 in the United States, but if the country has to wait for this addition to its supplies, no serious ill effect will follow. Most people in England have grown accustomed to being without butter.

Bacon stocks are fairly good, but the quality leaves much to be desired. If the American shipments of bacon are suspended, our own export of bacon to other countries can be stopped, and the supplies reserved for home consumption.
ALBION.

CANADA'S YOUNG FARMERS AND FUTURE LEADERS.

How Boys and Girls Clubs are Conducted in Illinois.

With the increasing number of boys' and girls' clubs being formed in Canada during the past year or two, especially the calf, sheep and pig clubs, it is interesting to read a circular from the Illinois College of Agriculture, telling how these clubs are organized and developed in the United States. In Illinois the membership is open to any young person between the ages of ten and eighteen years. Each member of the club is supposed to enrol as a member, secure a calf, and keep monthly records of feed, gains, labor, and other interesting items, to exhibit the calf, and to file a final report with the leader of the club. The objects of organization are stated to be as follows: 1. To teach boys and girls the general principles of thrift, application, and perseverance; 2. To assist boys and girls to take part in the movement for better dairying; 3. To bring such agencies as breed associations, dairy associations, banks, and other commercial organizations, and the public school system, into close touch, in their effort to help boys and girls in work of community interest.

The following paragraphs are quoted from the circular, and explain the method by which the calves in this instance are purchased, and also give an idea of how club meetings may be conducted:

"Any plan for conducting a calf club should look to the education of the club member as well as to the development of the dairy interests of the community. It should assist the home and school in developing good citizens, as well as provide practical information in dairying.

EXTENDED OWNERSHIP PLAN.

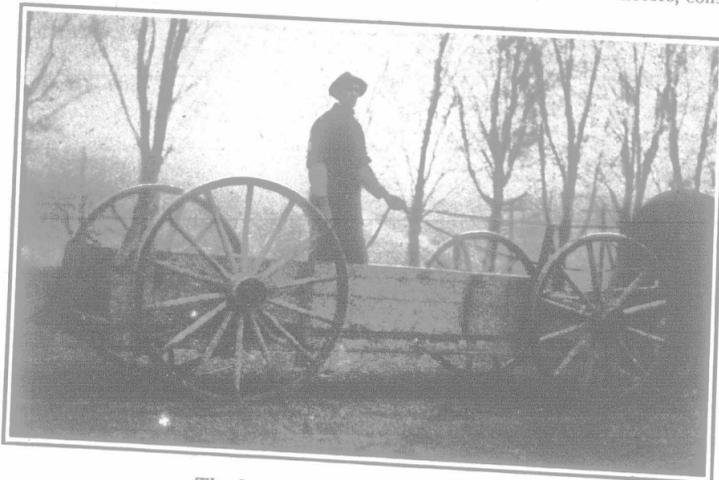
"In the extended ownership plan each club member feeds and cares for a heifer during a period which will extend beyond the time of first freshening. An opportunity is thus afforded for a more extended educational enterprise than is possible under the short-time plan.

"By the time the heifer freshens, the club member will have had considerable experience in caring for his animal, and as a member of a club he will have received, studied, and discussed the literature sent out by the Junior Extension Service. He should then be able to cope with the problem of the care of the cow at calving time. Information will also have been sent to him on the subjects of calf-raising, economical milk production, weighing and testing of milk, and the organization of testing associations. These subjects will have been thoroughly discussed in the regular club meetings.

"It will add greatly to the interest and ultimate success of a club organized under this plan, if some commercial organization will provide the club with one or more pure-bred bulls. In this way, the foundation may be laid for a community breed association.

SHORT-TIME OR AUCTION PLAN.

"In the short-time, or auction, plan, a bank or other commercial organization obtains the names and signatures of all boys and girls eligible for membership who wish to secure calves. Each member of the proposed club purchases a heifer and gives an approved note for the purchase price of the animal. The heifer is fed for a specified period, such as six months or a year. An auction is held at the end of the feeding period, at which each club member may sell his calf. The difference between the original investment plus other expenses, and the selling price, represents the returns for labor and profit. Each member reserves the right to bid in his own calf at the auction.



The Low-slung "Sloven" Wagon.
A handy rig for trucking about the farm.

CLUB MEETINGS.

"Organizing the club and securing calves for the members are only the first steps in a successful calf club. The club organization should embody educational as well as financial features. With this purpose in mind, meetings should be held at least once a month in a convenient place for the purpose of discussing the progress of the work. Increased interest in these meetings may be aroused by the occasional presence of an outside speaker to address the boys and girls on some special daily topic. The local club leader and advisory committee should assist the club officers in arranging for this part of the work.

"The following list of subjects is suggested. Information on these topics will be furnished upon application to the Junior Extension Service."

1. Care of the calf for the first six months:
 - a. Weaning the calf
 - b. Changing to skim-milk
 - c. Grain rations for calves
 - d. Roughages for calves
 - e. Calf diseases
 - f. Housing of calves.
2. Feed and care of the heifer from six months of age to time of freshening:
 - a. Grain, roughage, and pasture
 - b. Developing the heifer
 - c. Time and age to breed
 - d. Preparation for calving.
3. Care of cow and calf at time of freshening:
 - a. Economical milk production:
 1. Feeding, feed records
 2. Care
 3. Housing
 4. Weighing, testing milk, and method of keeping records.

5. The dairy sire:
 - a. Selection: type and pedigree
 - b. Care
 - c. Feed
 - d. Management.
6. Cow-testing associations
 - a. History and development
 - b. Organization
 - c. Economic and social benefits.
7. Community breed associations:
 - a. History and development
 - b. Organization
 - c. Economic and social benefits.

AUTOMOBILES, FARM MACHINERY AND FARM MOTORS.

The Horse as a Motor.

We hear a great deal about the gasoline engine, the tractor and the automobile, in comparison with the horse that for hundreds of years has been doing farm work all over the world. Very few people consider the horse as a machine, or a motor, for the simple reason that it possesses life. At the same time it is possible to consider the horse as a machine in which the feed consumed supplies the energy, which may be transformed into work when the horse is hitched to various machines or vehicles. Viewed as a machine, the horse is certainly a wonderful piece of mechanism. A self-feeding, self-controlling, self-maintaining and self-reproducing motor, it is at the same time capable of efficient service. Combustion must take place in the body of the animal, as in the interior of a motor, but because it takes place at a much lower temperature, a much smaller proportion of the heat value of the fuel is lost in the case of the horse than in the case of an ordinary engine. Consequently, a large percentage of the feed eaten by the horse is converted into work; a much larger percentage, in fact, than is possible with most motors.

The animal is really made up of a highly-complicated system of motors, consisting of muscles, which are aided

in their action by joints, and other provisions of nature which enable the animal to obtain a leverage during action. A muscle exerts its force in only one way, that is, by contraction, resulting in a pull, and for this reason muscles are arranged in pairs, as illustrated by the biceps and triceps of the forearm. This action of muscles has been likened to a steam plant, which, when working, converts a large amount of energy generated in the fire-box into mechanical energy, but as soon as the engine is stopped and the flow of steam from the boiler stops, the temperature rises rapidly.

The strength of muscles is considerable and may be illustrated by the biceps which acts upon the forearm. This muscle acts while at a right angle with the upper

arm as a lever of the second class, so-called, with a leverage of one to six. That is to say, the distance from the point of attachment of the muscle to the elbow is but one-sixth of the distance from the hand to the elbow; thus, a man is able to hold within the hand, when the forearm is held horizontally, a weight of fifty pounds, which necessitates an exertion of a 300-lb. force by the muscles. Sometimes the pull of the muscles as they act over the hock joint of a horse may amount to several thousand pounds. It is possible for the ox to develop only about two-thirds as much power as a horse, because he moves at a much slower speed.

The horse is well adapted to driving or overcoming horizontal resistance, but is not so well adapted for carrying loads. Man, on the other hand, can carry loads almost equal to that which can be carried by a horse, but even though the body is bent well forward he can drag but a small fraction of the load a horse can pull. The difference is in the shape of the skeleton; that of man being in the form of a column, suitable for bearing a load, while that of a horse is spread more or less horizontally so that he is able to draw upon a cart a load several times his own weight. The amount of resistance that a horse can overcome depends upon his own weight, his grip, his height and length, the direction of the trace, and muscular development.

The heavier the horse the greater the load he can pull, if only for the reason that he will adhere more closely to the ground. When a horse is pulling strenuously the tendency is to lift his fore feet from the ground, and occasionally it will be of assistance in enabling a horse to pull a heavy load, for the teamster to get on his back, thus helping the animal to hug the ground. One must, of course, use sufficient common sense in such a case and avoid doing more than giving the animal the necessary assistance. A weight heavy enough to become a burden, or interfere with the free drawing

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