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Forty-four years in the harness business is assurance that our goods are right. We manufacture the strongest and best looking harness it is possible to make and we figure our prices as low as they can be sold for. Ask your dealer for Imperial Brand Harness, made by Samuel Trees & Co. He will recommend it. If your dealer does not handle Imperial Brand, write us direct for prices on any style of our guaranteed harness.

**SPECIAL** We have made an extra good Team Harness, No. 640, at a special price. **\$57**

NO. 640 Ask your dealer or write to us about it.

**SAMUEL TREES & CO., LTD. (Established 1866)**  
Manufacturers of Harness and Wholesalers of Auto Supplies  
43 WELLINGTON ST. EAST TORONTO, ONT.



### Three Thicknesses of Roofing

THE ROOF on this cosy little home in the Maritime Provinces, like thousands of others throughout Canada, is laid with Neponset Twin Shingles. It is giving perfect satisfaction and will for years to come.

#### NEPONSET TWIN SHINGLES

Asphalt Saturation - Slate Surfaced - Fire Safe

The only twin shingle manufactured, makes a roof that is positively weather-tight and fire-resisting.

Their size and shape—two shingles in one, enables them to be quickly laid; they require one-third less nails; they are laid close together, have the appearance of a slate roof and being laid four inches to the weather, provide a roof that is three thicknesses over the entire surface.

They will not crack or curl, and it is physically impossible for rain or snow to blow in under them. Neponset Twin Shingles have a crushed slate surface—red or green in color.

There is a Neponset dealer in your district. Write us for his names and a copy of our illustrated booklet "Roofing Canada."

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"Canadian made, Canadian made, should be used in Canada for Canadian trade."

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### Bake with BEAVER FLOUR

OBTAIN bread with that delicious home-made flavor—pies, cakes and pastry with tender, delicate, flaky crusts.

Beaver Flour is made from the finest of selected Ontario Winter Wheat combined with enough Western Hard Wheat to give it strength.

Beaver Flour is the original blended flour—and blended flour is recognized by all qualified experts to be the best flour for general baking purposes.

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Sold by your grocer.

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### SUNLIGHT SOAP

Imitated—never equalled

There is as much difference between Sunlight Soap and its imitators as there is between sunlight and artificial light. Why? Absolute purity with superior cleansing powers—more real soap for your money—you get them in Sunlight Soap.

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## Of Interest to Farmers

### THE LAWS OF HEREDITY IN ANIMAL BREEDING

During the last hundred and fifty years the development of the various breeds of live stock has been one of the great triumphs of agriculture. Strange as it may appear, the advance has been made without the application of scientific principles. Rather, it has been the result of the application of the breeder's art, a body of lore and experience handed down for generations among the breeders themselves. Back of all this lore, however, there lay a large number of unexpressed scientific principles which have only been formulated recently, and which are guiding the action of the advanced breeders of today. Many of the great breeders, acting by intuition, broke away from tradition, when they began mating animals of close relationship, possessing the qualities they desired to improve, a practice for which science has proved an explanation.

These old breeders were, however, handicapped by many age-long traditions which must have caused them at times severe disappointments and discouragements. The old-time breeder believed that in mating two animals the cross shows a blend of characters. Whenever exceptions occurred they were treated as exceptions, but Mendel showed clearly that blends do not always occur, but that frequently one member of a pair of characters dominates the other members.

Again, breeders did not understand the results when crosses were mated. Instead of blends some of the progeny will show the characters of the paternal grandparents and some will be like the parents. Further modern hereditary takes no cognizance of the theories of telegony and maternal impressions which fill the pages of the history of breeding. The modern breeders have been freed from such impediments, so that with the new conditions greater improvements may be expected in coming days.

We are often asked: "What have the new principles of heredity done for the animal breeder?" A full answer to this question would require many pages, so a short statement must suffice at this time.

The laws of Mendel lie at the base of all modern scientific breeding of both plants and animals. As they have only been known for twenty years, their applications have been made to but a few phases of stock breeding. The essence of these laws is the important fact that the quantities or characters are inherited independently of one another and that these appear in certain definite ratio in the second and following generations. For example, if a horned bull is mated to a pure polled cow the progeny will be polled, but if two of these hybrid polled animals are mated, the probabilities are that out of every four of the progeny there will be one pure polled, two hybrid and one horned; and again, if a pure bred shorthorn is mated to a pure white shorthorn the progeny will be roan, and if roans be mated the progeny will likely be 1 red, 1 white and 2 roans. If a white polled animal is mated with a red horned animal the progeny will be roan polled, and if such roan polled animals are mated the probabilities are that only one pure bred polled animal will appear in sixteen of the progeny. In this case two characters are combined.

While color and horn characters are not the important characters in cattle breeding, the fact that their behavior in breeding has been fairly well determined has encouraged investigators to determine the laws of heredity for other more important characters such as the quality and quantity of milk. These characters however, are more complex, for many things enter into milk production—capacity, temperament as well as the glands. It is likely, therefore, that the inheritance of milk production has to do with several factors. This difficulty may be made clearer when it is known that when only one pair of characters is concerned, as in the instances given above, the chances of getting the desired character in the second generation is one in four; the chance of getting a combination of two desired characters is one in sixteen; one of three characters, one in sixty-four; and of four characters one in two hundred and fifty-six. Another serious difficulty lies in the relatively small number of progeny possible from a single pair of cattle. If cattle bred like rabbits or fowls or plants the breeders could get results much more quickly. Still another difficulty lies in the invisibility of many of the characters that determine the real worth of a cow. Color, horns, and flesh are externally evident, but milk productively is not. This is one reason why the show ring has hampered rather than helped to bring out the best dairy cows.

The Performance test must be made at every turn in developing a high producing strain. The Mendelian laws of heredity furnish the only means of ascertaining the real worth of a cow and of indicating the germinal content of an individual produced by any long-continued system of inbreeding. They show the weakness of basing the real worth of a cow on pedigree alone, for in most cases matings have occurred which do not keep up the standard of excellence. Most exceptional individuals may be expected in the progeny of average parents, but not even the majority of the descendants of exceptional parents will be exceptional. In fact the progeny of the matings is always somewhat lower than the parent stock. In the best of strains, therefore, the "drag of the race" is so common that only the most vigorous test-

### Quality In Dairy Products

C. E. MacKenzie.

With the warm weather, milk and cream troubles increase, and every can of sour or off flavor milk and cream injure the industry as well as the individual.

Good goods stimulate the demand and further, when the customer is assured of a good article the dealer has no difficulty in selling larger quantities. One bad dose is generally enough for the consumer and in fact he buys less or tries a substitute.

The farmer should control the quality and price of butter. If he furnishes cream of good quality, he makes possible the manufacture of good butter, which commands the highest price on the market. But if the quality is poor which means small returns. Now the dairy farmer has a reputation to maintain that is the standard of his products. Therefore the care he gives the cream and milk on the farm determines the returns from the butter and cheese and in turn these returns determine the prosperity of the dairy farmer because the price of butter fat is regulated by the quality of the finished article offered for sale.

Lack of proper care of milk and cream on the farm helps to lower the price of cheese and butter as well as increase the sale of substitutes, and in the end reduce the returns to the producer.

These unsatisfactory conditions can be overcome by proper care of milk and cream. To turn out a first class product, cleanliness should be the watch word of the farmer. Separators must be clean and sanitary; the cream must be cooled quickly; must be delivered frequently and protected in transit.

The separator is the collector of many of the impurities found in cream, hence if a good cream is secured, the separator should be thoroughly cleaned after each separation. Unless this is done, a first class cream cannot be produced.

Do not blame the separator for all the trouble, as attention should be paid to cleanliness and care of milk before separation. Milk produced under unsanitary conditions will not produce good cream, even if passed through a clean separator.

In the production of good milk, clean stables, clean cows, clean milking and clean utensils are essential. Yet all these are of none effect unless the milk is the milk is run through a clean separator and from reports of inspectors and butter makers, unsanitary milking and separators have been the chief detriment to the progress of the industry. Another point that should appeal to every up-to-date farmer is that the thoroughly cleaned separator and other utensils last much longer than those that are left dirty hence another save and increase in dividends. When the cream comes from the separator, the conditions are ideal for decomposition and spoiling, but if cooled quickly, your cream will keep for a reasonable length of time and the lower the temperature it is cooled, the longer it will keep in normal condition. This is not

possible by merely letting it stand in the open air. The can should be placed in water, as water cools about 30 times as fast as air if you have ice (and all dairymen should have a supply) by placing a quantity in the water you are able to get a much lower temperature.

Do not mix warm and cold cream, as you are sure to spoil it all. Always use a cooling tank as it not only cools your cream more rapidly, but serves to take the animal heat out of it and ensures a better product.

Another point to be noted is, that low testing cream spoils more rapidly than high testing cream and often by the time it reaches the creamery, it is unfit to make good butter; it makes more buttermilk and it is in this way a certain quantity of fat is lost. About 30 per cent fat makes the best quality of butter. Heavier cream loses on account of the amount sticking to the cans; it also makes it more difficult for the maker to make accurate sampling and tends to yield incorrect test.

Cream should be well cared for in transit and should be covered with a wet blanket if it has to stand long at the station, or on the way.

As long as our creameries receive low grade cream, so long are they knocking the industry. Good cream will enable them to build up a reputation for good butter, which means increased demand, higher prices and larger returns to the farmer.

### THE PRESENT COST AND SELLING PRICE OF HOGS

When a man states that there is no money in hogs he bases his contention largely on more or less accurate records of feeding costs, and feeding costs only. If the market hog cannot even pay for his feed, what then of interest on investment, labour, risk, losses, marketing expenses, etc., etc.?

The feed cost to produce one hundred pounds of pork may be calculated by including the cost of maintenance of the breeding stock responsible for the market hogs. Applying this method, one hundred pounds of pork would require about 600 pounds of meal.

American farm survey figures indicate even a higher meal cost—615 pounds. Valuing meal and grain at \$70.000 per ton which is conservative enough, the herd feeding charges per hundred pounds of pork would amount to \$21.00 on the 6 to 1 basis. Even this does not cover all farm costs.

Figures available from herds on the Experimental Farm System compare very closely with those obtained in farm survey reports, i.e. that approximately 78 p. c. of the cost of pork production is for feeds and the remaining 22 p. c. to cover farm costs exclusive of shipping charges. To produce 100 pounds of pork under average Canadian condition requires from 450 to 500 pounds of grain or the equivalent. At \$70.000 per ton for meal this would represent a feed cost per cwt. of pork of \$16.62 which figure represents only 78 p. c. of the total cost. One hundred per cent of the feed plus the farm charge, would amount to \$21.28 per cwt.

The above figure may appear startling. There are hundreds of small feeders who can feed a litter or so of pigs on a much cheaper basis. Otherwise there would be very little pork produced. Why can a few hogs be raised comparatively cheaply on the farm? Simply because of the fact that a considerable proportion of the feed is in the nature of a by-product or perhaps home-grown. Multiply the swine activities on the farm and it is necessary to purchase more meal and grain at market prices. The cost to produce mounts alarmingly. So with the farm flock of poultry.

What shall we feed hogs? Grain, mill feeds and by product feeds are becoming scarcer than ever. Wheat by-products are practically off the market. The feed markets of the future are most discouraging in prospect. The wholesale price of hogs has not appreciated correspondingly. The man who can feed hogs profitably TODAY MUST HAVE A COMPARATIVELY CHEAP PRODUCT OR BY-PRODUCT to replace meal as largely as possible. Such are scarce. Milk products form the greatest of all. City and hotel refuse is another. Green feed intelligently used, soiled or under the right conditions, pastured, is a third. Barley is one of the best of Canadian hog feeds—too little appreciated. Elevator screenings, if of standard quality, must be utilized wherever available. The man who is raising young pigs, who plans to feed them almost entirely on a grain ration, who has

## ROSE BRAND DELICIOUS READY-TO-SERVE MEATS



### Meals in Tune With Summer Appetites

IN summer, heavy foods are as out-of-place as heavy clothing. The appetite longs for light and tempting dishes—dishes that satisfy—the delightfully appealing dishes that can be quickly prepared with Rose Brand ready-to-serve meats.

Rose Brand cooked meats are culinary triumphs. Delicious, delicately-cured ham, jellied tongue, pressed beef, or any of the other dainty Rose Brand meat treats are prepared by skilful chefs so as to preserve all the natural goodness and flavor.

With them, you can prepare a meal to suit all occasions—a meal that any hostess might well be proud to serve, and any guest delighted to partake.

**CANADIAN PACKING CO. LIMITED**

### Sunday School Lesson

August 15—The Sins and Sorrows of David.

Printed Text—"Whatsoever a man soweth, that shall he also reap" (Gal. 6: 7).

Historical Setting. 1013-1014  
Time—1043 and 1023. B. C. Place, Jerusalem and vicinity.

Setting—First passage from Nathan's speech denouncing David's sin during the Ammonite war, not long after Mephibosheth incident. Second passage, Absalom, David's third son, born in Hebron of a royal heathen mother, indigently treated by David, handsome, popular, treacherous, ambitious, unfaithful, rebels, followed by almost the whole nation. David flees to Mahanaim between Gad and Manasseh but gathers a company of the faithful. David is one of the strongest, most attractive characters in history, stained by some heinous evil traits, marred by some pathetically weak ones.

### COMMENTS

12:9, 10. The first part of this lesson has to do with one of David's sins. A distinguishing feature of the Bible is that it records both the sins and the righteous acts of Biblical characters. The incident here referred to is described in Chapter II. The purpose of introducing it is in verse 10 and concerns the punishment to be visited upon David and his house.

18: 1, 2. Read the preceding chapters. After the events recorded in the preceding chapters, it became necessary for David to defend himself against his own treacherous son.

Verses 3, 4. The mountaineers quickly responded to the call of their king. David was soon heading a considerable army. The soldiers did not allow him to take the field in person.

Verses 5. These were trusted generals under David, but Absalom must have had a much larger army. David in his heart could not quite turn against his own boy.

Verses 6-8. This was Israel against Israel, regulars against regulars, loyal against loyal. Both armies were east of the Jordan. But Ephraim's woods continued across the river, and it must have been here that the battle was fought.

Verses 9. Josephus is responsible for the tradition that Absalom was hung by his hair. According to the Bible account, his head must have become wedged in the forks of a limb.

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### 2 in 1 WHITE SHOE DRESSING

LIQUID AND CAKE

THE BIG VALUE PACKAGES

KEEP YOUR SHOES NEAT

For Women, Children and Men's Shoes.


Continued On Page Ten.

little or no milk or green feed available, will almost certainly be forced to place a high valuation on manure and experience it if he is to get an even break next fall.

**G. B. ROTHWELL,**  
Dominion Animal Husbandman.

### Summer Skin Troubles

are smoothed away by **ABSORBINE JR.** Sunburn, chafing, itching, mosquito and fly bites, stings of insects are all soothed and healed by



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As one patient expressed it: "It makes one exquisitely clean and makes one feel as clean as a whistle."

**ABSORBINE JR.** is equally valuable for disorders beneath the skin—for abscesses, boils, carbuncles, swollen glands, various rashes, open sores, ulcers, eczema, brulures and rheumatic, neuralgic and other painful conditions.

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