FARMING

In this department each week will be given general information to farmers and stockmen. No attempt will be made to criticize the work already being done by Canadian farmers; but an effort will be made to present to the farmers of the country summarized information contained in government reports, and the actual experiences of men and women who have achieved success in farming by following modern methods. Farmers who have found new "wrinkles" or have made a success in any special line of agriculture are invited to send short letters to this paper giving their experiences, or criticizing any of the information contained in these columns.

Vegetable Growing

TURNIPS.

Turnips grown in the garden are of superior quality to those grown in the field. The vegetable growers aim to secure early turnips of medium size and good flavor. Seed should be sown in drills 15 inches apart as soon as land is in good condition. Thin to 6 inches. Late varieties are planted a month or six weeks later, usually after some early crop such as spinach. Late white turnips may be planted as late as August 15th, and if thinned to 6 to 8 inches in the row will yield well.

Early turnips are pulled when quite small and sold in bunches of three. Late turnips are harvested by pulling and cutting off tops and selling in boxes or bags.

WATER CRESS.

This crop can be grown on any soil that is moist. Low-lying land on the edge of a swamp or on the side of a slow-running stream is best. It can be grown from seed or from divisions of the plant barely planted in the moist soil. It could be grown in the witchen garden if it were thoroughly watered every day throughout the season. It is much more profitable where a natural supply can be had. When long enough the leaves and stems are cut off with a sharp knife and made up into a small bunch. Once established a bed will last a number of years.

WATERMELONS.

This crop is not grown extensively in any district in the Province. The bulk of the watermelons sold in Ontario markets are imported from the Southern States. All vegetable growers annually plant a few hills of this crop and quite a few kitchen gardens also have a small bed of this crop.

Soil.

Watermelons thrive best on a fairly open soil, well drained. A sandy loam is best, although a clay soil which is not too heavy will grow good melons. The best soil is a light sand.

Planting.

Almost altogether the seed is sown in hills 6 to 8 ft. apart. Seven or eight seeds being planted and three plants being allowed to grow. Very few gardeners start the plants in hotbeds or greenhouses as directed for muskmelons, although the same method may be followed to secure large early melons. Some growers place a fork full of well-rotted manure under the hill. This helps to supply plant food.

Cultivation.

The same cultivation as given for muskmelons, cucumbers, etc., is advisable for this crop.

Harvesting and Marketing.

Watermelons should be harvested when they are fully developed and mature. For local markets they are usually hauled in in bulk. For shipping they are loaded into cars in bulk.

List of Standard Varieties of Vegetables for Ontario. Recommended for Both Commercial and Amateur Gardeners.

Artichoke—Red or White.

Asparagus—Palmetto, Conovers Colossal, Reading Giant.

Beans — Wax—Golden Wax, Davis White Wax. Green—Valentine, Refugee.

Beets—Flat Egyptian, Detroit Dark Red.

Broccoli—Walcheren.

Brussels Sprouts—Dalkeith.

Cabbage — Early—Jersey Wakefield, Copenhagen Market. Main Crop—Glory of Enkhuizen, Short Stem Ball Head. Savoy—Chester Savoy, Green Globe Savoy. Red—Red Rock.

Carrots—Chantenay, Danvers, Half Long, Scarlet Nantes, Ox Heart.

Cauliflower—Erfurt, Snowball.

Celeriac—Large Smooth Prague.

Celery—Early—Paris Golden, White Plume. Winter—Winter Queen. Red—London Prize Red.

Chives—Common.

Citron—Colorado Preserving.

Corn—Early—White Cory, Golden Bantam. Main Crop—Perry's Hybrid, Stowell's Evergreen.

Cucumber—White Spine, Improved Long Green Chicago Pickling.

Egg Plant—Black Beauty, New York Purple.

Horse Radish—Bohemian.

Kale—Dwarf Scotch.

Kohl Rabi—Carentan.

Lettuce—Grand Rapids, Non Pariel, Big Boston. Trianon—Cos.

Muskmelons — Paul Rose, Osage Burrell's Gem.

Onion — Seed — Southport Yellow Globe, Southport Red Globe, Danvers Yellow Globe, Red Wethersfield. Pickling—Silver Skin, Barletta. Green—White Welsh, Egyptian. Transplanted—Prizetaker.

Parsley—Champion Moss Curled.

Parsnip—Hollow Crown.

Peas—Early—Gradus, Sutton's Excelsior, American Wonder, Thomas Laxton. Late—Strategem.

Peppers—Ruby King, Chinese Giant, Large Long Red.

Potatoes—Irish Cobbler, Early Ohio, Delaware, Early Eureka.

Pumpkin—Quaker Pie, Connecticut Field.

Radish—Ne Plus Ultra, Scarlet White Tip Turnip. Winter—China Rose, White Chinese, Round Black Spanish.

Rhubarb—Victoria, Linneaus.

Spinach—Viroflay, Round Leaf Summer.

Squash — Green Hubbard, Golden Hubbard, Boston Marrow, Vegetable Marrow, Bush and English Marrows.

Swiss Chard—Silver.

Tomato — Red — Earliana, Bonny Best, Chaulks Jewel, Red Rock, Red Canner. Pink—Byron Pink, Imperial.

Turnip—Golden Ball, Early White Six Weeks.

Watermelon—Coles Early, Peerless.

Questions Asked About The Making of Butter

Which is the best way to obtain the cream?

The best way is by using a separator. But a separator requires scrupulous care and intelligence and some experience in handling. The deep setting cans are the next best, and have been used with excellent results for years. The milk is kept at a low temperature by setting the cans in cold water, which affects very greatly the quality of the butter. Setting milk in shallow pans is the method least advisable. Uniform results cannot be obtained because the temperature is higher, a large surface of the cream is exposed to the air and consequently to dust and of the bad odors.

How does scalding the scream affect the butter?

It gives a distinctly rich, creamy flavor, but the butter will not keep longer than a few days.

How should the cream look and taste when it is ready for churning?

It should be thick like molasses, free from lumps and with a smooth, glossy appearance as it is poured out. It should taste pleasantly acid and have a clean sharp smell. As far as possible the cream should be kept sweet until the day before churning. If then it does not sour naturally, stand the cream jar in a pan of slightly warmed water until sour, when it must be cooled again in readiness for churning.

What should be the temperature at churning?

This depends upon the time of year: it should be two or three degrees higher in winter than in summer. Rich, closely skimmed cream requires a lower temperature also. The lower the temperature, the firmer and better in quality the butter. The butter should come in thirty-five to forty minutes, and the temperature should be regulated accordingly. It will range, according to conditions, from 50 to 62 degrees Fahr.

How can I make the butter come when it takes longer than forty minutes?

By adding some slightly warm water. If butter takes a very long time to come, it is likely that the cream was too thin to begin with.

What should the butter look like when it is ready to be separated from the buttermilk?

It should all float to the top of the buttermilk in granules like wheat, or a little larger. If finer it will be difficult to seprate. If churned to a lump the buttermilk cannot properly be washed out. Rinse with cold water; strained through a cloth twice will be sufficient if the grain is kept open to permit thorough washing away of the buttermilk.

How can I prevent butter sticking to wooden utensils?

By scalding them thoroughly and then plunging into cold water.

What causes a mottled appearance in butter after it has been worked up?

Insufficient working and uneven salting. To work butter properly it should not be warm enough to form a greasy mass, nor so cold that great difficulty is met with in working in the salt. The best way is to keep the butter cool and use a little extra work upon it.

Why is my butter very light in color?

This depends upon the breed of cows kept, also it may be caused by churning at too high a temperature. If the quality is right, there is nothing against its being rather light in color.

Why is my butter soft?

Probably because it was churned at too high a temperature. Also the feed of the cows has some influence. Succulent food has a tendency to make softer butter.

What should the butter look like when done?

It should be fairly firm, though it will attain its right degree of hardness after being set away in a cool place for a few hours; in tint it should be like the rind of a lemon or a little deeper. It should have a fine grain, not poor and greasy through overworking, nor with holes and cracks from underworking.

How can I make my butter keep?

It is impossible to keep first class butter. People just will eat it and will pay top price for it. If you use care and cleanliness from the milking of the cows to the wrapping of the butter in its white parchment paper you will have no worry about its keeping.

POULTRY

Selecting the Good Layers.

In view of the soaring prices of feed the importance of the most careful culling of the flock to be carried over to another year cannot be overestimated. The birds to be kept over should not be chosen according to age alone, especially hens intended to be used as breeders. Many birds become poor producers during their first year, while a large proportion of the good layers are two or more years old.

A hen that is laying in October of her second year is a good hen to keep to breed the next season. Having come through two seasons of the strain of laying, with a good constitution, it is desirable to reproduce her. The average person who keeps more than fifty hens cannot afford the time necessary to make trap-nest records. The following method, though not providing individual records, has given good general results in the selection of the most productive birds. As soon as the egg yield begins to decrease in the summer, the hens are examined while on the roosts on one night each week, until the middle of November. Hens with empty or only partly filled crops, in summer or early fall, are rejected; they are usually troubled with impaired digestion and are not fit to carry over. Early molters are among the poor producers. Some of them lay a few eggs in the early part of the winter, but in the long run they are expensive to carry another season.

The hen that retains her old feathers until late in the fall, and has a full crop at night; warm but not hot shanks; breathing regularly with beak closed; pelvic bones pliable, admitting two or more fingers, should always be kept over. Two-year-old hens with these qualifications can be depended upon for breeders for another year. The last half dozen hens, to answer these tests in November, are given a distinguishing leg band. In the following spring they are mated to a strong, well-developed cockerel, a son of a proved layer. Cockerels raised from this mating are used for breeding in the main flock.

Cold shanks usually denote poor circulation, and hens possessing them, except in extremeely cold weather, seldom pay their board. If the pelvic bones are firm, covered with fat, and so close at the bottom that the thumb cannot be inserted, the hen has stopped laying or is about to stop. These birds are among the poor layers, since they generally stop laying early, though they eat their share of feed.

In yellow shanked varieties it has been accurately established that the heavy layers "lay out" the coloring matter from shanks and beak. Therefore the hens with pale shanks and beak in the late summer or fall are kept. These birds generally prove to be excellent layers the following year. By following this method of selection, the work of trap-nesting during the day may be eliminated; the cost of feed consumed gradually reduced as the summer and fall progresses, while the value of the egg yield is kept up until late in the fall.

The writer desires to impress the fact that a good hen two, or even three, years old can be profitably kept another year, while it is wasteful of feed, labor and house room to carry over a poor yearling.—J. Ernest Place.

The Mongrel as a Forager.

The question in the minds of most farm folks who are considering replacing their flocks of mongrels with given breeds of poultry is: Have these well-bred fowls the ability to take care of themselves and forage for a living as the average mongrel must do?

Speaking from observance of actual cases I may say that fowls of known breeding are every bit as capable in this line as the mongrel hens, provided they have been hatched and reared on the farm under the particular conditions. Poor results are likely to be had when mature fowls, unused to farm life, are purchased and put out on the farm to shift for themselves. Such hens don't know how to care for themselves and are too old to learn; they must be brought up under the particular conditions, then the breed adopted will show every bit as much ability in foraging lines as does the mongrel.

There is one thing, however, that the farmer must remember: In rearing a given breed of fowls he cannot expect to have the extraordinary birds of the show room unless he is willing to give the birds special attention and feeding, for such stock is chiefly the result of special care.—J. R. K.

Summer Purgative.

The practice of giving the adult stock regular purgative treatment during the hot months of summer is coming into favor more and more each year. The birds go off their feed very easily at this season, and the beneficial effects of a mild purgative are very noticeable when the flock gets sluggish.

The remedy most commonly used is ordinary Epsom salts, given about once a month in a moist mash at the rate of a liberal teaspoonful to every two birds. When such a mash is given it is well to withhold the morning scratch feed, so that the birds will be hungry for the mash.

Skim Milk and Substitutes for Swine

Skim-milk and milk products generally are considered to be the cheapest and best foods available for swine. Frequently, however, conditions and feeds are found suitable for hog raising, where no milk product is available. Are there efficient and economical substitutes? Before considering these let it be once more emphasized the value of milk for the hog. The production of milk bids fair to be one of the greatest of live stock activities,—in the ascendancy this year. There is no equivalent for milk products for the hog. There are only substitutes. Every effort should be directed toward the conservation and proper use of milk. High prices and scarcity of feeds at any price are the prospect. Milk products promise to be fairly plentiful.

Milk Substitutes for Weaning Hogs.

The weaning period is a critical one with the little pig. For the best results milk is practically a necessity for a few weeks after weaning at least. Much has been written regarding the efficiency of tankage as a substitute for skim-milk with the little pig. Several years' work at the Central Experimental Farm with skim-milk and substitutes revealed the following facts:

Pigs fed grain and milk required 1.54 lbs. meal per lb. gain; pigs fed grain, oil meal and milk required 1.39 lbs. meal per lb. gain; pigs fed grain, tankage and milk required 1.64 lbs. meal per lb. gain; pigs fed grain, tankage and water required 2.59 lbs. meal per lb. gain.

In other words:

1. The milk fed pigs made cheapest gains. (a) The addition of 10% oil meal to a meal and milk ration was an improvement. (b) The addition of 10% tankage to a meal and milk ration was a detriment. Therefore as an addition to a ration already containing milk oil meal is apparently superior to tankage.

2. That a direct replacement of milk by tankage resulted in lowest gains and highest cost of production.

3. That the use of tankage was not indicated in a ration already balanced and of fair variety.

Little pigs to be weaned without milk should be left with the sow as long as possible. When they are about a month old they should be supplied with a small trough in a creep and fed small quantities of dry rolled oats which may later be changed to a mixture of ground oats, (sifted, if possible), middlings, equal parts, 10 per cent ground corn and 10 per cent oil meal. The pigs may be fed from a self-feeder from this time on. Or the little pigs may be started with an oat meal gruel and gradually changed to a slop of milldings, ground oats and oil meal to which might be added 6 or 8 per cent blood meal. **Until the little pig is 10 or 12 weeks old his rations should be as free of fibre as possible and contain, if at all possible, some skim-milk.**

Milk Sugstitutes for the Growing Hog.

Milk by-products for the growing pig, while not so vital a necessity as in the case of the weaner, can not be entirely replaced. Pasture, green food roots and vegetable refuse, oil meal, tankage and fish meal may, any or all, be profitably used as partial substitutes. Tankage again has been widely recommended. As an addition to a corn ration or a ration low in protein, it will show surprising results. In one experiment which might be mentioned a ration of grain only was responsible for .92 lbs. gain daily; grain and tankage, 1.39; and last but not least, grain and milk 1.57 lbs. Similarly grain self-fed with milk fed separately was responsible for gains with growing pigs of 1.05 lbs. daily. Where the milk was replaced with tankage with pigs of similar age the daily gains dropped to .52 lb.

What is the Value of Skim-Milk To-day?

There are several interesting and, in the light of experimental evidence, more or less reliable methods of arriving at the value of skim-milk for hogs.

When corn is worth $30 per ton milk is worth 32 cents per cwt. (Fed 1 lb. corn to 3 of milk). In other words milk would now be worth about 80 cents per cwt.

2. Multiply the market price of hogs by 5 to arrive at the value of skim-milk fed alone. Multiply by 6 where fed with corn or barley. On this basis skim-milk would be worth from $1 to $1.20 per cwt.

3. A very old rule, 100 lbs. of skim-milk is worth half the price of a bushel of corn where fed with the latter, or about 90 cents at the present time.

4. With meal at $10 per ton, milk is worth 20 cents per cwt., from 65 to 80 cents at present.

The foregoing are general rules and capable of wrong interpretation or application. Experiments in Canada show the value of skim-milk to be at pre-war prices of mixed meal, (about $28) from 28 cents with heavy hogs to 79 cents with light, growing animals, 400 pounds of skim-milk has consistently been worth about 100 pounds of meal.

Milk products are valuable. They should be conserved. One pound of meal to three of milk is a safe rule in the feeding of young pigs. For the 100 pound hog from 5 to 8 pounds daily shows the most economical returns.—Geo. B. Rothwell, Dominion Animal Husbandman.

SAVING HOME GROWN SEED.

Although the cost of seed that is used in planting a vegetable garden is small compared with the returns, it is very easy to grow the seed one's self, and, moreover, if pure seed of a good strain is produced at home, one is surer of having what is required.

Seed of most varieties of vegetables can be grown at home of as good or better quality than is the imported seed, but to ensure having good seed, it should be saved from the best plants rather than from those which happen to have been left in the garden unused.

A few plants of peas left to mature without picking any green pods from them will furnish enough seed for the garden next year.

Reserve a few feet of the row of beans for seed, or, better still, mark a few productive plants which are free from disease, and do not pick green beans from them. Quickness of drying is important with beans and peas, as with most seed, and it should be cleaned and kept dry until the following spring.

If seed is damp it is liable to mould and lose its germinating power. For this reason it is particularly important in the case of corn to dry the seed thoroughly and rapidly. When corn becomes ready for use, a few of the earliest and best developed ears should be marked to be left until ripe for seed.

One cucumber will contain enough seed for the wants of the home gardener. A specimen which is typical in shape and color of the variety grown or the type desired should be left on the vine until it turns yellow, when it is cut open and the seeds spread out thinly and dried and put in an envelope until needed.

Seed is readily obtained from lettuce. One plant will produce more than enough seed for home use, and no doubt some radish plants have gone to seed, which may be left until teh seed ripens.

The seed of tomatoes for home use should be saved from the plant bearing the largest crop of early and best fruit. The tomatoes are cut in half and the pulp pressed out into some vessel, adding about one-third its volume of water. Put in a dark room until fermentation sets in, which will be in about two days, when the seed will separate readily from the pulp. It is then washed out and spread out to dry, but not in the sun. When dry, store in paper bags until needed. —W. T. Macoun, Dominion Horticulturist.

KEROSENE EMULSION.

Kerosene emulsion is one of the best lice killers on plants and animals. It is easily prepared and cheap. Made as follows:

Dissolve half pound soap in gallon of boiling water. Add 2 gallons of kerosene and stir very vigorously, or better yet, churn with a force pump for a few minutes. For use, dilute one gallon with 9 to 10 gallons of water. If only a small quantity is wanted, use 1 to 2 ounces of soap, 2 quarts of boiling water and 1 pint of kerosene and dilute to 2 gallons. Stir well; it is best to use rain water.

SHORTHORN BULLS GET GOOD CALVES

But They Must Be Pure Bred in Order to Make Money for the Farmer

A bull will sire anywhere from one hundred to several hundreds of calves during his lifetime.

Suppose we place the number of calves at one hundred, and suppose the calves by one bull are worth an average of $5 per head more than the calves of another bull, what would this mean?

It would mean that the one bull would be worth to his owner $500 more than the other bull, except the small difference in interest on investment.

If the difference in value of the calves was $10 per head, the difference in the value of the bulls would be $1,000 and correspondingly greater for wider differences in the value of the calves.

There are cases where steers by a good bull have brought $50 per head more than steers of the same age by inferior or scrub bulls.

These figures should make any man pause before buying an inferior bull merely because the price is low.

It is true that merely paying a high price for a bull does not make him a good one, and excellent bulls are often bought at very modest prices; but it is equally true that really good bulls are always worth the money paid for them, while inferior bulls are dear at any price.

No man can afford to use a scrub bull. A good bull at $1,000 is cheaper than a scrub bull received as a gift, as the figures given above amply prove.

It is also worth noting that steers by Shorthorn bulls have "topped" the open market in Canada and the United States, and still hold several open market high price records.

In a test at the Kansas Experiment Station, steers by Shorthorn bulls were the only ones which showed a profit.

Add to this, the fact that Shorthorn steers not only produce beef as cheaply as any other kind, but give greater weights for age than any other breed.

Surely the thoughful farmer will see to it that the bull he uses in future must belong to the Shorthorn breed, the breed which will give him more beef, more milk, and more profit.—G. E. Day, Secretary, Dominion Shorthorn Breeders' Association, Guelph.

HUMANE METHODS IN HORSE TAMING

British Army Officer's Watchword is Kindness in Dealing With Equine Outlaws

"The Reforming of Dangerous and Useless Horses" is the title of a new book on an old subject by Lieut. Mike Rimington of the British Army. After a career in the far east the author served in France with the Indian cavalry during the great war, and was in charge of a depot where unmanageable horses and mules were sent to be reformed or shot. His experience was thus broader than a horseman could hope to have in times of peace, and his statement that kindness, patience and determination, combined with common sense, constitute the keynote of his system, is gratifying to those who believe that horses are seldom if ever vicious, but are made so by mismanagement or cruel treatment.

"The Arab is the most wonderful horse master in the world," he says. "He governs his horse by the law of kindness from the moment they are foaled. They live with the family. The consequence is they have become more intelligent than any other breed of horses, and have developed such a deep and lasting affection for their masters that they will obey their voices. I reform the savage outlaw on exactly the same principles as I educate nervous horses and colts that have never been handled. There is, I regret to say, a firm belief with a good many grooms and others that the one and only method to show refractory colts who is master is by cruelly ill-treating them whenever they do wrong. This system has the opposite effect, and makes them more savage than ever.

"I have two equally humane methods, and adopt either or both, according to the circumstances of the case. The first I apply to colts, nervous horses and some that are on the verge of becoming vicious. The second is used for the dangerous horses and the few horses you fail to reform by the first method.

"First method: Cause your horse to see, smell and touch with his nose everything that he does not understand, until he is satisfied that it will not hurt him. Get him to follow you about loose by kindness and by making much of him. When riding him apply the correct aids to show him what you want him to do. Reward and caress him when he obeys your aims and wishes. Never on any account cause him pain or be rough with him. In a very short time he will willingly obey you.

"Second method: Tie some hay securely around a stick eight feet in length, and let him eat and rub his nose with the end the hay is attached to. Hold the other end out of striking distance, so as to give you a chance if he attempts to savage you. Do not attempt to enter his box until you have persuaded him to eat the hay from the stick, which is long enough to reach any part of him from outside the box. Rub gently, talking to him all the time, every part of his body, fore and hind legs. Continue to rub any part that he resents till he stands quietly and leaves off kicking, etc.