

day of the Congress the cattle
y, Secretary of the Shorthorn
was no easy task to decide
the competition. In aged
with Augusta Star, an animal
tario breeders. G. W. Brown,
nd with Governor Butterfly, a
with quality and condition.
e two-year-old class for S. G.
iller Bros., of Claremont, Ont.,
A. Wright, of Saskatchewan,
yearling class with Clarence,
re competitor was Columbia
harp Bros., of Alberta. Both
ce. The junior and grand
to Myrtle Beau, the deep-set,
ch headed the junior yearling
d by J. B. Davison. This
s. Scotland's Delight was the
nd went under the hammer at
the senior champion and sold
s, of Manitoba, were first
h Rosebud 2nd a beautiful
id lines. She realized \$1,225
was won by Royal Minnie, a
by Hon. Duncan Marshall.
er at \$1,100. P. Talbot &
the two-year-old class with
sold for \$600. Miller Bros.,
the senior yearling class with
square, blocky individual
ought \$3,000 in the sale. The
Miss Clara 2nd, a strong
rib. Dale's May, the highest
topped the junior yearling
pion. The Lady Lancaster
champion. The following
together with name of pur-

Zentz, Cando, N. D.	\$1,000
n, Methven	600
J. Clark, Manitou	600
ann, Bangor	675
Codina	500
McAnley	625
Conquest	525
aw, Gainsboro	425
Sintaluta	575
Dumas	375
in, Bienfait	400
ver	450
Bluff	600
ines, Alexander	775
nitou	800
Deloraine	500
'Appelle	310
ark Manor	1250
Cando, N. D.	210
Oxbo	700
sen, Weyburn	450
ixford	700
rie, Cando, N. D.	700
ald, Oak Lake	350
ly, Somerset	280
ed Jacket	350

Heifers.	
De Winton	3,100
rk Manor	925
g, Kemnay	375
& Sons, Winnipeg	390
Sintaluta	350
ing, De Winton	1,100
Bradwardine	650
Somerset	1,100
De Winton	575
g, De Winton	900
rh	400
Bros, Duval	475
apinka	375
s, Poplar Point	975
Logan, Tuxford	1,000
aham, Roland	775
rk, Manitou	400
rk, Clark Manor	600
, Poplar Point	1,025
al	875
son & Son, Winnipeg	300
Winton	600
Darlingford	500
olmfield	375
on, Weyburn	435
tt, Rouleau	925
worth	1,225
Rolla	260
an, Bienfait	200
Bienfait	265
ching, De Winton	3,000
ton, Ninga	450
re	350
Manor	335
Winnipeg	400
Goodwater	510
	750
	375
Innedosa	275
g, Manitou	355
illan Bros, Poplar	575
s, Poplar Point	550
insworth	600
s, Poplar Point	425
	550
Kemnay	600

Snowdrop, G. R. Sherman, Bienfait	\$ 200
Roan Rose, G. R. Sherman, Bienfait	450
Fancy Lady, W. F. Drewery, Rolla, N. D.	500
Miss Ramsden 13th, C. G. Beeching, De Winton	625
White Hall Nan	400
Lady Hesper 2nd, Jas. Alexander, Goodwater	200
Lily of the Valley, A. C. Little, Hamiota	550
Claret Cup, Thos. J. Clark, Manitou	375
Rosebud Gem, Geo. Kinnon, Cottonwood	500
Shenley Rosemond, McMillan Bros., Poplar Point	950
Dora, A. J. Quigley, Sintaluta	310
Isabella 14th, McMillan Bros., Poplar Point	675
Mabel D., Thos. J. Clark, Manitou	275
Isabella D., J. G. Clark, Clark Manor	300
Velvet Queen 2nd, A. S. Gee, Cupar	430

How to Train a Dog.

EDITOR "THE FARMER'S ADVOCATE":

I herewith venture to give my ideas on how a puppy should be handled to make a good farm dog of him. To begin with you must have a dog of the proper breeding. You cannot take a Percheron or a Clydesdale and train it for a trotting horse and expect success. You cannot take a Jersey and expect to make a beef animal of it. Neither can you take a bull-dog or a hound and expect to make a good sheep or cow dog of it. You may think you have them fairly well trained, and then—just when you least want it or expect it—they will run amuck. The Collie is the only breed that there is any place for on our farms. He has been used for hundreds of years on the stock farms of Scotland and England; only the puppies from the very best dogs were raised and at present the Collie is as near perfection as a working stock dog as it is possible for the breeders to make them. The average Collie takes to handling stock as naturally as a duck does to water. In writing this I am taking it for granted that the reader has a Collie to start with.

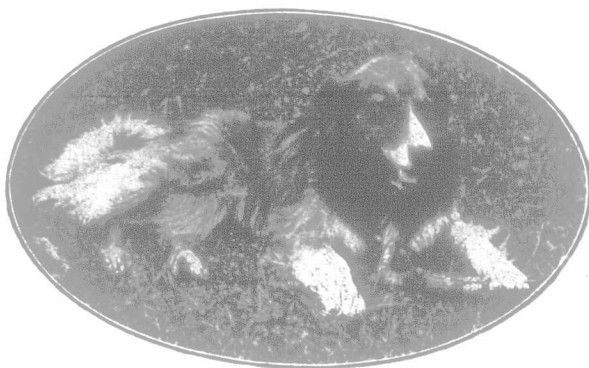
It is quite easily understood that before you can teach anybody or any thing you have to know something yourself. Some people have trouble teaching a dog for the same reason. They don't use "horse sense." The average person has at least a smattering of "horse sense" and should be fairly successful in training a dog. The average healthy puppy is always busy. If you don't find something for him to do he will himself, and it will not always be something you appreciate either. Your rubbers may be carried off and chewed up—your hens may be exercised—the cat gets a good mauling or is forced to climb trees—the harness suffers if he can reach it; in fact "the devil always finds work for idle pups to do." For this reason if the pup is not with you he should be tied up where he can't get into mischief and learn bad habits. Dogs are like boys, they learn bad habits when idle. The most mischievous pups usually make the best dogs if they get proper training.

A Collie is a very sensitive animal. A large number of our best dogs have been ruined by men who believed in that old adage "spare the rod and spoil the dog." In a few instances whipping may be necessary, but the average Collie is so intelligent that he can tell by the mere tone of your voice if you are displeased with him. If you are kind to him he will do everything he can to please you and it isn't necessary to thump him to impress it on his mind that you don't want him to do a certain thing. A little kindness will make a lot better dog of him than a lot of whipping.

A pup should never be used for driving cattle when it is too young. If a young pup is kicked it takes some time for it to overcome that fear of the cattle's heels, and the tendency will be for it to go to the cattle's heads—which you don't want it to do. After the pup gets about six months of age it will not hurt him if the old cow does howl him over a few times; he will have his mind made up enough to know he can be boss, and if he is kicked will usually proceed to impress the fact that he is "boss" on the animal which kicked him. Take the pup along as soon as he will pay any attention to the stock but keep him back away from their heels. A young pup will wander right up to a cow's heels and

he is kicked so quick that he is not sure whether it was you or the cow that did it, and will always fight shy of the rear end of an animal afterwards.

It is impossible, or next to impossible, to train a pup properly if there is an old dog along. The pup will want to play with the old dog all the time. When you tell him to do anything he will run and pile on the old dog, and the same thing will happen if you tell the old dog to do it. In a very few cases the old dog will keep the pup in its place and teach it something. An old dog must



An Intelligent Dog Which Will Respond to Training.

know something itself before the pup will learn anything useful from it. As it is possible to make a much better dog of the average Collie pup than the average dog is, it is a good plan to dispose of the old dog before starting unless he is an exceptionally good one.

A lot of people object to a pup playing with children. I would much rather a pup was playing with them than have it out around the fields chasing birds or doing some other similar foolishness. It will at least learn to take care of the children if it plays with them.

Sometimes a young dog is too harsh with stock and drives them too fast. This can be overcome by



A Pair of Sheep Dogs.

tying up one of his front legs or keeping him on a leader until he learns better. Using a leader is about the best and easiest way of breaking a pup of going to the cattle's heads.

The practice of castrating or unsexing both the males and females cannot be too highly commended, both from the breeding and utility standpoint. The average farmer could castrate the males, but the females should be taken to the veterinarian. If this is done the females make really the best dogs. They are quicker to learn and are often the best workers. Castrating a dog before

he is fully developed usually prevents and often cures that rambling instinct. Some people claim that an unsexed dog is lazy but some of the best dogs I have ever seen were unsexed males and females.

In Ontario the dog question is quite a serious one. The number of undesirable dogs kept does not seem to decrease in proportion to the increased dog tax as much as we would like. In my mind there is no reason why a dog should be taxed any more than a cow or a horse. As the present system of dog taxation has had no appreciable results, why not try something else? The system I would suggest for controlling the number of undesirable dogs would be to tax all the dogs which are not unsexed, and not tax those which are. The tax for one year would pay the veterinarian's charges for the operation, and it would certainly pay to have the dogs unsexed unless they were worth keeping for breeding purposes. When it came to a matter of dollars and cents only the sex of our very best dogs would be preserved, and in a few years the mongrel, the cur and the undesirable breeds would be conspicuous by their absence throughout the province.

Prince Edward Co., Ont.

G. E. DE LONG.

THE FARM.

Factors Governing the Use of Fertilizers.

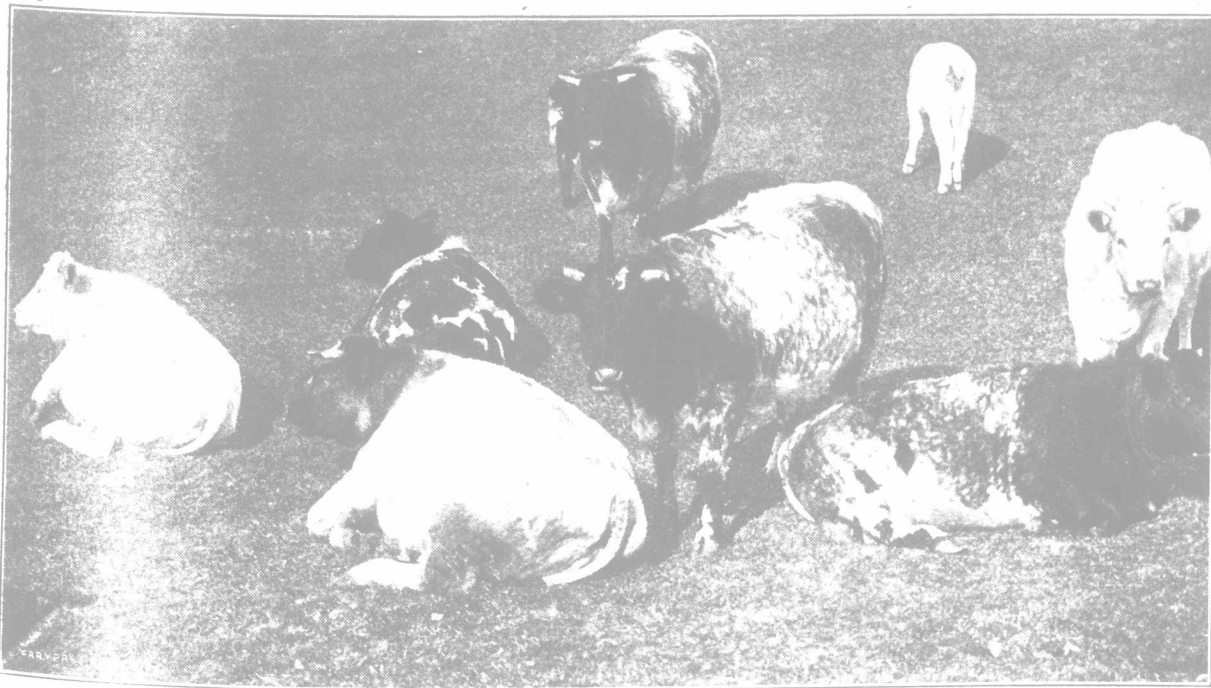
BY PROF. R. HARCOURT, O.A.C., GUELPH

Judging from the nature of the questions asked by correspondents this spring, we may conclude that many farmers, market gardeners, and others are deeply interested in fertilizers. They are looking well to the question of food, and it is an important point; but, plants, like animals, require more than food if they are to make good growth. They must also have water, plenty of sunshine and air, and they must be comfortable. One of the first things a good feeder insists on is comfortable surroundings for the cattle he is feeding. Only then can he hope to get the best results from his feed. The same is true with plants. The soil is the home of the plant, and in that soil the roots must spread in search of the food and water they require. There may be an abundance of air around the leaves of a plant, but, if the soil is not open and porous, there may not be enough in contact with the roots, for it is worthy of note that air in the soil in which crops are growing is just as essential to the life of plants as air in the stable is to the animal. This ventilation of the soil is necessary to supply oxygen required in the germination of seed, to permit roots to live, for they, too, must breathe, and to supply this life-giving element to the millions of organisms in the soil whose work it is to prepare soluble food for the plant. These conditions are controlled by drainage and cultivation, and they are fundamental. The application of fertilizers cannot take their place, nor can the plants make proper use of the food supplied unless good cultural methods are followed, and the surroundings of the plant made comfortable. It must not be forgotten then that while fertilizers are valuable in proportion as they contain good forms of plant food, the results that will be got from their use is influenced by the condition of the soil.

Aside from the above considerations, to make good use of the fertilizers, we must know something about what the soil is most deficient in, what the crops to be grown have most difficulty in securing, and something about the fertilizers themselves.

The soils of this province are quite diversified, but so far as we have been able to gather results from the first part of our soil survey work, the two constituents that our soils are most deficient in are decaying organic matter and lime. Lack of phosphoric acid comes next.

The importance of having an abundance of decaying organic matter in a soil is hard to overestimate. If it is derived from leguminous plants so much the better; but in any case, it is the natural source of the most of the nitrogen to the plant; it very definitely improves the physical condition of the soil, and in its decay acids are formed which bring the insoluble mineral plant food of the soil into an available form. Consequently, where there is plenty of decaying organic matter, there is, if other conditions are right, plenty of nitrogen, good physical condition, and some use is being made of the stores of plant food in the soil. In connection with the last point, let me further emphasize the matter by stating that chemical analysis of the various types of soils collected in our survey shows that most of the soils of this province carry nearly 2 per cent. of potash and from 0.10 to 0.15 per cent. of phosphoric acid. These do not seem like large quantities, but the weight of soil in an acre of land is so enormous, that even these small proportions of plant food may amount to very considerable quantities. Thus an arable soil, clay or loam, to the depth of six and two-third inches over one acre, will weigh, when dry, about 2,000,000 pounds. If it contains two per cent. of potash, there would be 40,000 pounds of potash in the plowed land of one acre, and there is probably as much in each succeeding six inches of the subsoil. Phosphoric acid is not so abundant, yet even of this there is from 2,000 to 3,000 pounds in the surface soil of one acre. When we take into consideration that a 30-bushel crop of wheat, straw and grain, takes from the soil less than 40 pounds of potash and only half that amount of phosphoric acid we see how immense are the stores in our soils. A 22-ton crop of mangels, leaves and tops, will, however, take from the soil as much as 300 pounds of potash and over 50 pounds of phosphoric acid. Even this amount seems negligible when we consider the enormous quantities there are to draw upon. But these stores of plant



A Contented Group of Shorthorns.