

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

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DOMINION.

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Forestry Institutes be held on the ground where the planting is done, with a view to get together everyone interested to see and hear for themselves all that is necessary in the setting out and care of forest trees. It is hoped that next year a permanent department for forestry will be established at the college, so that students will secure information on the subject, both technical and practical.

We can see no good reason why men cannot also be trained at the above institution to serve as foresters upon the Crown Lands of the Province, without involving the greater outlay of subsidizing a college of forestry in the City of Toronto in connection with the University, as some have advocated.

Where to Locate the Ontario Forestry School.

To the Editor "Farmer's Advocate":

I read with much interest your article under the above heading in your April 7th issue, and I would like to make another suggestion. Some years ago a dairy school was erected in Strathroy. It is a fine building, and I believe would answer the purpose of this school or college of forestry; the dairy interest would be better served by having all the students attend at Guelph O. A. C., and have that department of the college fitted out with first-class apparatus. This would leave the Strathroy buildings for a forestry college. In connection with that, a primary school of agriculture might also be made a very useful adjunct to the more advanced work being carried on at the Guelph college.

W. K. M.
Middlesex Co.

Grand.

I would not like to be without the "Farmer's Advocate and Home Magazine" for twice the subscription price since it became a weekly. It is simply grand. We look for its arrival very anxiously each week.

CHESTER B. TIMMINS.
Dundas Co.

The Relation of the Botanist to the Farmer in Plant-breeding.

The botanist at many of the experiment stations or colleges has been content to let the practical agriculturist or experimenter oust him from his rightful work, and by so doing has allowed himself to be pushed out further from the good graces of the farmer than he should be. One reason for this has been the narrow views held by the botanists themselves, who imagined that unless they were classifying a plant never before classified, or with a high-power microscope were investigating the amours of various fungi, they were not doing scientific work. Nothing brings more clearly to one's mind the immense field to be exploited by the practical agricultural botanist (by the way, a new variety of botanist, obtained by the blending of science with agricultural practice) than the catalogue of Gartons, the noted English seed specialists. Therein are to be found pedigrees of cereals, roots and grasses, all bred with a particular object in view, e.g., a new barley, the Invincible, bred to resist smut, is derived as follows:

Chevalier	Golden Melon	Standwell
	Invincible	

We submit that it is of far greater value to the student at any agricultural college to be taught practical plant-breeding, with a view to farm conditions and suitability of different grains, than to have the matter of the ordinary text-book of botany drilled into him, even granting the laboratory work prescribed by such books is carried out. From an educational point of view, the catalogue mentioned above has considerable value; a description of each breed is given, accompanying the pedigree, which shows the origin of the breed, the seed which is sold being of a specified guaranteed germination. Not only this, but the various breeds have been originated with a definite object, and crosses made with grains possessing the necessary qualities.

This catalogue states that when new breeds of plants are raised from cross-fertilized seed, the tendency is, after the lapse of a few years, to deteriorate, as strikingly shown in the different varieties of potatoes which succeed for a few years, then fall out of cultivation, to give place to others of more recent origin. This is exactly what occurs in all other new breeds of farm plants which are produced by means of artificial fertilization. In the case of new breeds of grain, this deterioration is caused by nature's system of continual in-and-inbreeding. To arrest this deterioration and bring these new breeds back to their original productiveness, our system of plant improvement is each year applied to a number of individual florets, and from the grains thus produced a stock is raised which we term "regenerated stock."

Our contention is for a more practical application of botany at agricultural colleges, which will result if the botanist remembers that he is the plant husbandman. Nothing less will make the science of botany attractive and profitable to the farmer.

Dominion Educational Association.

The Dominion Educational Association is to hold its convention this year in Winnipeg. The dates finally announced for the meeting are July 26th to 28th, and those who think of attending will do well to make a note of the fact to guard against disappointment. The president of the Association for this term is Dr. D. J. Goggin, now of Toronto, and the secretary is Mr. W. A. McIntyre, of Winnipeg. As each of these gentlemen was engaged in educational work in Ontario before going west, the preparation of the programme and the arrangements for travel could not be in better hands.

It is a fortunate coincidence that the Dominion Exhibition will this year be held in Winnipeg, and the educational authorities have wisely made the two events coincident in time. This will give eastern educationists a chance to see for themselves a collection of the products of the great Western country, and for those who desire them excursions will be available to points beyond Winnipeg as far as the Pacific Coast. The railway rates and routes have not been definitely announced, but it is confidently expected that both will be exceptionally favorable.

HORSES.

Persistence of the Urachus in Foals.

In the unborn animal there is a tube extending from the anterior portion of the lower part of the body of the bladder to the umbilical or navel opening. This tube is called the urachus. After it passes out of the umbilical opening it expands and forms a sack that surrounds the foetus external to the inner membrane, hence forming part of the foetal membranes, usually called the afterbirth. The function of the urachus is purely a foetal one, viz., to convey from the bladder the urine that is secreted during foetal life. At or very shortly after birth, this function no longer being necessary, the canal, under ordinary circumstances, becomes obliterated. It, however, not infrequently occurs that from accidental causes not well understood, or as a consequence of malformations, it is only partially or not at all obliterated, and urine continues to escape by drops or in a small stream from the navel cord. This condition is more frequently noticed in male than female animals, and appears to be more dangerous in the former. While foals that suffer from the abnormality are usually weakly, the accident is often met with in smart, strong subjects, but if the discharge be not checked, the patient, in most cases, soon becomes weak and unthrifty. The condition also is in many cases accompanied by that serious disease called "joint ill," in which cases there are little or no hopes of successful treatment. At the same time, it is not uncommon to notice persistence of the canal without complications.

The symptoms are not difficult to detect. The subject may or may not be weak, but urine will be noticed escaping, either by drops or in a stream of greater or less volume from the navel opening. If the foal be weak and unthrifty it will usually lie most of the time, and instead of the navel drying up and the opening healing, there will be a constant wetness of the parts, and a refusal to heal. In some cases there is an almost constant escape of urine in small quantities; in others there is apparently no escape except when the subject is urinating, when, if the urethra (the normal channel for urinary discharge) be pervious, it will be noticed that liquid is escaping by both the normal channel and the umbilicus. The foal usually becomes listless, and gradually grows weaker and weaker, but there are exceptions.

TREATMENT.—Before treatment is resorted to, it is necessary to ascertain whether the urethra is patent. In some cases there is a false membrane occluding the entrance of the urine from the bladder into the urethra, and where this condition exists, if we prevent its escape by the urachus it cannot escape at all, and, of course, death will be the result, either from inflammation of the parts and exhaustion, or from rupture of the bladder. In cases where the foal has been seen passing urine by the normal channel, of course no further evidence is necessary, but where this has not been noticed, a small catheter should be passed, to break down the false membrane if one be present. If the umbilical cord protrude below the abdomen it should be disinfected with some good antiseptic, as a 5-per-cent. solution of carbolic acid or phenyle, or corrosive sublimate, 1 to 700, or even stronger; then, when the end of the urachus can be seen and taken up with a forceps, it should be tied with carbolized catgut or silk. Even where the cord is broken off close to the abdomen, we can sometimes secure the vessel by throwing the colt and holding him on his back. When the urachus cannot be individually secured, the whole cord may be enclosed with the ligature, but it is better, when possible, to secure the urachus alone. The parts should then be dressed three or four times daily with the antiseptic until healed. Clams may be used instead of a ligature. In cases where the canal cannot be secured in this way, some authorities recommend the operation of cutting down upon it through the floor of the abdomen and securing it, but this is a critical and, in most cases, an unnecessary operation, and one that requires an expert, hence it is seldom recommended or performed. In such cases the application of strong astringents or of caustics will be effective. Probably the most successful treatment has been the application twice daily with a feather of a few drops of equal parts butter of antimony and tincture of myrrh. In order to apply this properly, the foal must be held upon his back and the liquid carefully applied. Care must be taken to not apply the caustic too freely, or over a greater surface than that upon which we wish its action exerted. In cases where treatment for this trouble is adopted early, a recovery usually takes place, provided there are no complications, but when treatment is deferred or neglected until the patient has become too greatly weakened it is often unsuccessful. "WHIP."