

The Farmer's Advocate AND HOME MAGAZINE.

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back-yard gardener into thinking that he gains time, but it would hinder the farmer in his work if his hired help adhered to the new time and two sets of time make for much inconvenience. Therefore we say let the townspeople arise an hour earlier than they do and quit an hour earlier at night if they wish, but leave the clock run on as before.

Mixed Farming With a Speciality.

Ontario and Eastern Canada is a mixed farming country. The production on most farms one year with another depends very largely upon how well the farming operations are mixed. There is a difference between mixing and jumbling. The most successful operators of mixed farming generally figure on combining a number of branches which work well one with another toward a successful whole. There is very often a main branch or leader. For instance, on some farms dairying may be the leader with bacon hogs making use of the by-products resulting therefrom and a good second in importance. These require clover, corn, roots, grain and bedding which divides the work nicely over the season, permits of a rotation of crops on the entire farm, makes it possible to grow a little wheat in many instances which increases the supply of bedding and may leave a little grain for sale if not required for feed—the whole a mixed farm with a speciality or two, dairying and hogs. The same can be worked out with beef cattle and sheep with a few hogs. Each system puts live stock in first place as a speciality. Each system makes it possible to breed and raise a few horses and to keep a profitable flock of hens. They both make for maximum crops and returns from the land. Any farm operated on a mixed farming basis should, to be the best success, have a speciality in live stock. The mixed farm with no speciality is often a muddle. There is not enough of any one thing to make good returns and there is just enough of all to break even. A speciality such as outlined means more stock to the farm, more fertilizer, bigger crops and a better cropping system, all of which mean better farming and bigger bank accounts.

Corn and weeds cannot both do well in the same

Choose an Honest Job and Stay With It.

BY SANDY FRASER.

I hae been thinkin' sometimes that gin there's ony chance for a mon wha has become discouraged like, an' isna' makin' muckle o' a success o' his fight wi' circumstances, it's for him tae get hauld o' a story o' the life o' some mon that has been through the mill before him, an' wha has come out on tap o' the pile in the end. What has been done by one mon can generally be done by ony ither mon, gin he mak's up his mind tae it. I mind the time I wis a young chap, I used tae be pretty doon-hearted at times wi' a' the bad breaks I wad be makin'. I began tae think at last that gin there wis ony chance whatever tae dae the wrang thing, that wis the thing I did. But by guid luck I got hauld o' a book about that time, that gave a sort o' a life history o' a mon that wis about as guid as mysel' at gettin' intae scraps in his youthful days. But he stuck tae his job in spite o' a' kinds o' hardship an' he won out in the end. Sae I says tae mysel', "Sandy, gin you're no as guid a mon as that ither chap, ye want tae get tae wark an' find it oot, sae that ye can pit the blame on yer ancestors". There's naething like the force o' example tae get ye back on tae the track again, wi' steam up an' a' ready for anither run.

I wis readin' an account the ither day o' that chap across in the States that owns a' those five-an'-ten-cent stores in the different toons an' cities there. It seems that he is the biggest retail merchant in a' the world, or that ever wis in the world, an' that he owns the highest an' handsomest building in New York City, which is sayin' a good deal, as ye will ken, gin ye've ever been there. He has mair than forty thousand people warkin' for him a' thegither, an' his hale business is valued at about sixty-five million dollars. He isna' what ye wad class as a failure in his ain particular line at ony rate. In fact maist o' us think enough o' money tae let him pass for a success.

Weel, this same chap got off tae a vera poor kind o' a start. He didna' even ken enough tae stay on the farm on which he wis born, but he must gang aff tae the city tae mak' trouble for himsel' an' ither there. For some years he held the Grand Championship in the green class wi' na chance for the title tae pass tae ony outsiders. The first three months he warked for naething an' boarded himsel'. At last he struck a job at six dollars a month, but he made sic a poor fist o' the business that his wages were cut doon instead o' bein raised. Then he heard about anither place an' managed tae get it at ten dollars a week. This encouraged him tae get married an' start house-keepin'. But it wisna lang before his wages were reduced again. This wis mair than he could stand an' he made up his mind tae gae intae business for himsel'. His first five an' ten cent store wis no great success, an' juist aboot this time his health broke doon an' he wis aff the job for a couple o' months or mair. When he got gaein' aboot again he started up four or five mair stores, but three o' them went tae the wall, an' in his efforts tae keep things goin', oor young chap frae the country got himsel' intae the hospital again.

Hooever, he wis gettin' wiser a' this time, an' he finally came tae see that he wis warkin' along wrang lines. He quit tryin' tae rin the whole show himsel' an' started in tae act as general manager, pittin' the responsibility on ither, an' juist directin' things as he saw they needed it. His change o' fortune came wi' his change o' ideas aboot wark. Frae that time he has kept comin' ahead till noo it is his idea tae finally hae a store in ilka city in the world. I wouldna' be surprised tae see him dae it either, for there's na keepin' a guid mon doon, ye ken. Noo, as I said, it does a chap guid, at certain times, tae read aboot a mon like this. When things hae no' been gaein' weel wi' us there's aye some kind o' a deil in us that tells us tae throw the hale thing up an' quit tryin'. An' the maist o' us feel unco' tempted tae listen tae this sort o' thing. But gin we dae, we're done. It's by stayin' on the one job that we ever get enough experience tae mak' a success o' it. All things come tae them that wait—an' wark. I'm minded o' a chap that I knew some years back. At the time o' the rush tae the Klondike he threw up his job an' went aff wi' the crowd. He warked for a couple o' years up north, but the hard wark an' the cauld weather were ower muckle for him, so he sauld out an' cam' back hame. The mon that bought his claim didna' hae it mair than a couple o' weeks when he struck the gold that wis there waitin' for the ither chap, gin he had sand enough tae hae stuck tae his shovel an' pick. But hame he came an' bought a farm, an' started in tae mak' a fortune oot o' the dairy industry. Aboot five years o' it was enough for him. He cam' tae the conclusion that the hardest way ever invented to mak' a livin' wis by feedin' coos an' squeezein' the milk oot o' them ilka night an' mornin'. Sae there wis an auction sale o' live stock an' implements, an' anither move wis made. This time it wis to a fruit farm, an' it sounded as though it might be all right tae hear him talk aboot it. But it has turned oot tae hae its drawbacks like a' his ither ventures, an' I hear he wad move again gin he didna' hae tae tak' the farm wi' him. We've a' heard that three moves are as bad as a fire, but I think it's worse, for when a chap has moved that often he gets the habit, an' it's a bad one, but one isn't apt to get into the habit o' havin' fires. But that matter aside, the point is that there seems tae be juist one sure way tae get onywhere in this world, an' that is by choosin' some honest job an' then stayin' wi' it lang enough tae gie yersel' a chance tae climb tae the tap o' it. But that five-an'-ten-cent chap that I wis tellin' ye aboot learned anither thing that wis worth knowin', an' that wis that gin ye want

yer business tae grow tae a guid respectable size ye've got tae tak' on help an' ken how tae manage it. I dinna' think I'll be gaein' intae that matter juist at present, hooever. I may hae a word tae say on the subject later on, gin I think I hae had experience enough tae warrant me in expressin' an opinion. But the auld wumman has juist tauld me tae come tae my supper, an' since one way tae manage yer help is by keepin' them in guid humor, ye ken I mauna' keep her waitin'.

Nature's Diary.

A. B. KLUGH, M. A.

To the farmer, some knowledge of the sciences, such as botany, zoology, chemistry and physics, is most valuable. We might even safely say that such knowledge is absolutely necessary for intelligent agriculture, that without such knowledge farming operations are carried out by "rule of thumb," which is a very poor rule indeed.

Of these sciences botany is certainly not the least important and perhaps it is the most important. Botany is an extremely wide subject, wider than most people are apt to think. It is commonly thought of as a sort of ornamental study which consists in pulling flowers to pieces and giving a name to each little piece, and perhaps of collecting, pressing and mounting a certain number of plants. This idea of botany is undoubtedly due to the old and pernicious system of teaching the subject which was in vogue in the schools and which is now fortunately being replaced by a better system. Upon this point let me not be misunderstood; it is necessary that the student of botany should learn the parts of plants in order not only that he may understand their structure, but that he may be able to classify them—to tell the family to which a plant belongs, but this should be the foundation-work and not the aim and end of the subject, and any system which leaves off at this point is like teaching a man how to excavate a cellar and build a foundation without giving him the slightest idea how to proceed about the erection of the structure which is to rest upon that foundation. Botany takes in not only the study of the anatomy of plants and their classification, but also the conditions under which they live, the way in which they perform their life processes, their uses to man as crops and as drugs, their troublesomeness to man as weeds, the manner in which those forms known as fungi affect other plants which man is cultivating, the determination of those species most useful as food for those forms of wild animal life which it is desirable to propagate, the study of the forest and the improvement of the timber crop, and, in its broadest sense, even the vitally important study of bacteriology, since bacteria are really a form of plant life.

Many of these phases of botany are of great importance to the farmer, but the two which touch him most closely are the recognition and control of fungous diseases and weeds.

It is scarcely necessary in an agricultural country to define the term "weed"—every farmer knows only too well what sort of a plant is meant, but at the same time it is a word which is often wrongly used. The term is often applied to any wild herbaceous plant, even when it is growing in its natural habitat and is not intruding on agricultural land. A weed is often defined as "a plant out of place", so that in this sense a stalk of wheat in a cabbage patch would be a weed. But this is hardly a good definition and it seems to me that a far better one is "a plant which persists in growing where it is not wanted", as this brings in the character of persistency which is one of the main attributes of weeds. Without this persistency a plant cannot become a weed, and when we come to analyze this character we find that it may be due to one or more of many factors, the two most usual factors being hardiness and rapid multiplication. Practically all our worst weeds are immigrants from older lands, plants which have proved themselves successful in the struggle for existence for centuries in their respective countries and are continuing this success in the New World.

The ways in which weeds cause a loss to the farmer are manifold. They rob the soil of water and of plant-food; they crowd out useful plants; they attract injurious insects and harbor fungous diseases; some are poisonous to stock, others are injurious to animal product, as those which produce burrs to become entangled in wool, and those which taint milk; and all of them are a constant source of expense to the farmer in combatting them.

It is of much importance that the farmer should be able to ascertain the names of weeds which he finds on his land. Often an extremely noxious weed will first appear in a locality in the form of a single plant or a very small patch, but as nobody happens to know its name or its reputation, it is allowed to seed and spread until it brings notice upon itself by becoming a pest. If it had been recognized at first its inroad might have been literally "nipped in the bud". When travelling through the country I always make a point of drawing the attention of the owners to any weeds I notice just becoming established on their land, and in this way I have been able to prevent the introduction of some noxious species into many localities. In some instances the removal of a single plant has turned the trick.

In the recognition of weeds one of the most important things to acquire is the ability to tell at once to what family a weed belongs. When the family is known it reduces the number of possible species to comparatively few. Anyone who follows the description and figures of the different weeds with which I shall deal from time to time should soon acquire this ability to recognize families.