

Apple Trees Dying.

We have had reports of the destruction of many apple trees in Markham and Scarboro. The trees that have stood and flourished for the past thirty years, have, during the past year, died away in many places. Nearly half the trees in some orchards have been destroyed, though some of them are only partially damaged. The cause is scarcely known; some give one reason and some another. The loss is to be deplored, as apples were becoming valuable for shipping, and fears are entertained that fruit raising in that part of the country will become a loss.

Drouth is thought to be the cause by some. We would like information regarding this subject. The loss may be great in the eastern and northern parts of Canada.

Lucerne.

Mr. Eady, of Biddulph, is desirous for some information relative to Lucerne. Lucerne is a most profitable crop for feeding stock, but we have no reliable information of its having been grown in a climate such as that of Canada, and proving sufficiently hardy to endure our winters. It has been long known to agriculturists; two thousand years ago, when Virgil wrote his interesting work on farming and farm life, the value of Lucerne was appreciated. In France it has been cultivated with success for some centuries, and in the British Isles it takes part in the rotation followed by systematic agriculturists. There is no plant cultivated for the feeding of stock that yields a more abundant produce of nutritious food, and, instead of impoverishing it serves to enrich the soil, its roots drawing from a depth that other plants do not reach, and its abundant foliage absorbing from the atmosphere large supplies of plant food. By sowing it in drills, and cultivating it so as to keep it free from weeds for the first season; it may be cut for hay or soiling frequently during the year. It may also be sown broadcast—20 lbs. to the acre; great care is required to sow it evenly. It is said that it has been found to endure the winter on the shore of Lake Superior; and it is believed that where the ground bears its covering of snow through the winter Lucerne will succeed. Its productiveness is so much greater than that of ordinary grass, that an American writer states that one acre of Lucerne in the State of New York will produce sufficient food for four cows soiled, or for two cows if pastured, while three acres of ordinary pasture on the same land are needed for one cow. The ground for Lucerne requires deep ploughing and thorough cultivation. We would advise Mr. Eady to sow a small quantity in a favorable situation as an experiment. Such a place as he describes would be very suitable—a deep, rich loam, with a southern aspect, screened from the north winds.

Steaming Food.

Last month we gave the experience of Wm. Brennie in steaming food for cattle. When the merits of the system become better known to the Canadian farmer, we think it will come into general use. We would recommend farmers to try it.

The price of the machinery, we since learn, ranges from \$60 to \$80. To a 100 acre farmer it will pay for itself in the saving of fodder in one year, and such a season as last winter, when many cattle, both old and young, were stinted—which was a serious drawback to the young—it would have saved many dollars over the cost to those who had to sell their stock cheaply in order to keep the rest alive during the remainder of the year. By this means old mouldy hay, straw, &c., may be made palatable, nutritive food.

Not only with horses and cattle alone is the steaming of food great economy, but also to sheep and hogs. One of the many advocates of this system says that after a careful experiment he found that his hogs gained half a day more than when he fed dry food, and less food was required. He also says that when he fed the cooked food his corn was worth \$3.15, while, when fed dry, it was worth only \$1.60. The following results as to steaming food for cattle, given by one who has tested it for a number of years, will be found in the *U. S. Agricultural Report* for 1865:—

"1st. It renders mouldy hay, straw and corn-stalks perfectly sweet and palatable.—

Animals seem to relish straw taken from a stack which has been wet and badly damaged for ordinary use, and even in any condition except "dry-rot," steaming will restore its sweetness.

"2nd. It diffuses the odor of the bran, corn meal, oil meal, carrots or whatever is mixed with the food, through the whole mass, and thus it may cheaply be flavored to suit the animal.

"3rd. It softens the tough fibre of the dry corn-stalk, rye-straw and other hard material, rendering it almost like green, succulent food, and easily masticated and digested by the animal.

"4th. It renders beans and peas agreeable food for horses, as well as other animals, and thus enables the feeder to combine more nitrogenous food in the diet of his animals.

"5th. It enables the feeder to turn everything raised into food for his stock, without lessening the value of his manure. Indeed the manure from steamed food decomposes more rapidly, and is therefore more valuable than when used in a fresh state. Manure made from steamed food is always ready for use, and is regarded by those who have used it as much more valuable for the same bulk than that made from uncooked food.

"6th. It saves, at least, one-third of the food. We have found two bushels of cut and cooked hay to satisfy cows as well as three bushels of uncooked hay, and the manure, in the case of the uncooked hay, contained much more fibrous matter neutralized by the animal. This is particularly the case with horses. These have been the general results of our practice, and we presume do not materially differ from that of others who have given cooked food a fair trial."

Naturalized Weeds—Distribution of Seeds.

In the February number of the *ADVOCATE*, in the review of the essays on Wild Oats, we referred to the great number of weeds of species so generally met as to lead many to think that they are indigenous to the country. We now quote from the *New York Tribune* a brief item on this subject:—

NATURALIZED WEEDS.

"Two hundred and fourteen of our weeds have been introduced from foreign countries, and chiefly from England. In 1837 only 137 foreign weeds were enumerated in our catalogues. In 1872 a book entitled 'New England Rareties' gave a list of twenty-two plants, which the author spoke of as having sprung up since the English took possession. Among these the plain-tain, 'the white man's foot,' is mentioned. In 1758 the toad flax, or butter and eggs, also then known as the 'Rausted weed'—from the name of the gentleman who introduced it into Pennsylvania as a garden flower—had overrun the pastures of that Province, and had caused many anathemas by the farmers against the unlucky introducer. The common chick weed is said to have been first sown in South Carolina as food for canary birds, and the presence of the Scotch thistle is accounted for as due to the *amor patrie* of an enthusiastic Highlander, who brought it hither as an emblem of the pugnacity of his countrymen. Another record says we have the thistle through the carelessness of a clergyman, who brought hither a bed of thistle down, and on changing it for feathers, spread it and the seeds it contained broadcast over the country."

An incident that came under our own observation a short time since, shows how easily seeds may be brought from their native soil and propagated in another country. In the Indian Reserve at Oneida town in the vicinity of Delaware, Ontario, we saw a large plot of uncultivated ground grown thick with Canada thistles. All the adjacent land was free from them, while here they had undisputed possession. On enquiry as to the cause of their occupying the plot, we learned that some years since an Indian had come with his wife and family from the State of New York to the Oneida settlement and obtained a share in the Reserve. Among his goods and chattels that he brought with him to his new home was a mattress stuffed with straw. This he emptied on the spot where the thistles now grew so abundantly; the Canada thistle seed that was in the straw took root, and the forest of thistles we saw that day was the progeny of the seed inadvertently thrown on the untilled land many years ago.

The thistles were confined in a great measure to a limited area; the surrounded land though carelessly cultivated was, as far as we saw, free from them. We have since then observed in more than one instance a plot of ground grown thick, as the one at Oneida town, with Canada thistles, and like it confined to a narrow, circumscribed area. How are we to reconcile this fact with the opinion so generally held that the seeds of those thistles are borne on their wings of down that we so often see swept by the autumn breeze over the fields far and wide to new seed beds. In a field of eighty acres we have known their growth to be confined to a plot less than an acre, while in it they grew luxuriantly and held their own against the repeated attacks of plough and hoe. We have long held the opinion now entertained by a modern botanist—Mr. Kean, of Switzerland—that the down of thistles and other weeds was not designed for the distribution of seeds. Our observation of such facts as the above have led us to the conclusion that if the down from those weeds bore abroad the seed for their propagation elsewhere, the thistles would not be as we have seen them, confined to limited plots. We have come to the conclusion that though Canada thistles may be propagated from the seed, their propagation is chiefly from the roots, and that the seed is not distributed, as generally supposed, to any great distance, but falls beside the stem, and there such of it as meets a favorable bed, grows.

The difficulty experienced in exterminating Canada thistles is owing to the great vitality of the roots, every root left in the ground springing up a new plant. The aim of the farmer should be to destroy the vegetable life of the plant by cutting it out with the hoe or other instrument, not suffering it to breathe the air, without which it must in time cease to live.

An American journalist in expressing his opinion that the feathery matter attached to seed, does very little to the distribution of seed says:—"Take the common dandelion for instance. In early summer we may see the down in every direction floating in the air; but of hundreds examined we believe one has never been found with a seed attached. It has also been placed on record in American scientific journals that the down (pappus) of the Canada thistle is rarely if ever found floating with the seeds attached. There is near to the farm of the writer—not, in fact, fifty feet from his line—a piece of land over which he has no control. For the past ten years a patch of Canada thistles have flourished there undisturbed; but, although carefully watched, not a plant has ever made its appearance on this farm, or anywhere that the writer knows of but in the one original spot. Seeds or roots can be carried from place to place by men or animals, or by similar force; but the influence of wind has been much over-rated."

It is not only the roots of perennials that have a surprising tenacity of life; the vitality of seeds is equally great. The seeds of trees lie for many centuries concealed in the earth, secluded from air, and afterwards start into life on being brought within the fertilizing influence of sun and air and moisture. Nor is this vitality of seeds limited to trees. Cereals and even weeds have the same innate vital power. That common in view of my window had for years borne a thick sward of grass, and when ploughed last summer the fallow presented a dense growth of white muller, though not one plant of it appeared till the seeds that had long lain in the earth were brought by the plough within the influence of the atmosphere.

The Grangers.

Now is the time for Canadian farmers to unite. Mr. Eben Thompson, Deputy of the National Grange, is now in Western Ontario organising Granges. See what you can do in your section; and if you can secure enough members to commence with (9 men and 4 women) send him a card and he will go and get you in working order. His address will be for the present "care of the FARMER'S ADVOCATE Office, London, Ont. If you see any chance for a Grange in your neighborhood let us know immediately.

PLATFORM OF THE GRANGES.

As adopted at the national meeting at St. Louis.

Profoundly impressed with the truth that the National Grange of the United States should definitely proclaim to the world its general ob-

jects, we unanimously make this declaration of the purposes of the patrons of Husbandry:—

1st.—United by the strong and faithful tie of agriculture, we mutually resolve to labor for the good of our Order, our country and mankind.

2nd.—We heartily endorse the motto, "In essentials, unity; in non-essentials liberty; in all things charity."

3rd.—We shall endeavor to advance our cause by laboring to accomplish the following objects:—to develop a better and higher manhood and womanhood among ourselves; to enhance the comforts and attentions of our homes and strengthen our attachments to our pursuits; to foster mutual understanding and co-operation; to maintain inviolate our laws; to stimulate each other to labor to hasten the good time coming; to reduce our expenses, both individual and co-operative; to buy less and produce more in order to make our farms self-sustaining; to diversify our crops and grow no more than we can cultivate; to condense the weight of our exports, selling less in the bushel and more on hoof and in fleece; to systemize our work and calculate intelligently on probability, to discountenance the credit system, the mortgage system, the fashion system and every other system tending to prodigality and bankruptcy. We propose meeting together, talking together, working together, buying together, selling together, and, in general, acting together for our mutual protection and the advancement of the association may require. We shall avoid litigation as much as possible by arbitration in the grange. We shall constantly strive to secure entire harmony, good will and vital brotherhood among ourselves and to make our order perpetual. We shall earnestly endeavor to suppress personal, social, sectional and national prejudices, all unhealthy rivalry, all selfish ambition. Faithful adherence to these principles will insure our mental, moral, social and material advancement.

4th.—Our business interests. We desire to bring producers and consumers, farmers and manufacturers, into the most direct and friendly relations possible. Hence we must dispense with a surplus of middlemen—not that we are unfriendly to them, but we do not need them. Their surplus and their exactions diminish our profits. We wage no aggressive warfare against any other interests whatever. On the contrary, all our acts and all our efforts, so far as business is concerned are not only for benefit of producers and consumers, but also for all other interests that tend to bring these two parties into speedy and economical contact. Hence we hold that transportation companies of every kind are necessary to our success: that their interests are intimately connected with our interests, and harmonious acting is mutually advantageous. Keeping in view the first sentence of our declaration of principles of action, that individual happiness depends upon general prosperity, we shall therefore advocate for every State the increase in every practicable way of all facilities for transporting cheaply to the seaboard, or between home producers and consumers, all productions of our country. We adopt it as our fixed purpose to open out the channels in nature's great arteries, that the life blood of commerce may flow freely. We are not enemies of railroads, navigable and irrigating canals, nor of any corporations that will advance our industrial interests, nor of any laboring class. In our noble order there is no Communism and no agrarianism. We are opposed to such a spirit and management of any corporation or enterprise as tends to oppress the people and rob them of their just profits. We are not enemies to capital, but we oppose the tyranny of monopolies. We long to see antagonism between capital and labor removed by common consent and by the enlightened statesmanship of the nineteenth century. We are opposed to excessive salaries, high rates of interest and exorbitant profits in trade, as they greatly increase our expenses and do not bear a proper proportion to the benefit of the producer. We desire only self protection and the protection of every true interest of red by legitimate transactions, legitimate trade and legitimate profits. We shall advance the cause of education among ourselves and for our children by all just means within our power. We especially advocate for our agricultural and industrial colleges that practical agriculture, domestic science and all the arts which adorn the home, be taught in their courses of study.

5th.—We emphatically and sincerely assert the oft-repeated truth taught in our organic law that the grange, national, State or subordinate, is not a political or party organization. No grange, if true to its obligations, can discuss political or religious questions, nor call political conventions, nor nominate candidates, nor even discuss their merits in its meetings; yet the principles we teach underlie all true politics, all true statesmanship, and if properly carried out will tend to purify the whole political atmosphere of our country, for we seek the greatest good to the greatest number. But we must always bear it in mind that no one by becoming a grange member gives up that inalienable right and duty which belongs

to every American citizen in all the territory of the United States. It is in his power to legislate for the action of a nation; it is his duty to do so. It is his right to be heard in his own party to put trickery, to see full and honest stand by our order for all positions. We shall characterize every office should see office. We shall hold that difference of opinion is not a reason for exclusion. It is a right as a free man that will best be given. Our benevolence we cannot be excluded by or laborers, but we shall not be entirely direct into soil, or may have our purposes. zens for their c in our efforts to eventually remove the general desire of tyrannical compromise an omen of our

7th.—It shall to relieve any of brotherhood by Last, but not our purposes to tion of the ability indicated by ad position in our assistance of our in our work, we ful and harmon return by our justice, fraternal forefathers.

Crop

The *Market* looks the prospects of land, while summer seasons.

The result of rural operations wheat crop, which product of the year, is almost certain. It is partial, some favored with a the years 1871, been far from though the forage fair and animal at high prices.

Nor is the case a whole—so serious a market price; and this likely to sell high, quite unequal to

With respect to the weather-wisdom of the weather-wisdom know whether the able inference season in which there was not a ice strong enough vest of that year wheat was chief ward countries, with hopes, and adopt for his mind thing be despair about the return passed through than the present now presents.

Review of

Abridged from January, given the year, has any frost. We start in vegetation temperature, a cattle without herbage alone, record. What no indication h Continent from open season ha several market but still our supposed necessities