THE FARMER'S ADVOCATE.

FARMERS ADVOCATE THE AND HOME MAGAZINE

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and growing demand from cities and towns for milk and cream, and the good prices prevailing for cheese and butter, the temptation to keep more cows and secure bigger checks is still strong. But when the cost of labor, foods and the cows themselves are all counted, are the profits so great? Suppose it did resolve itself into a little less money and a little more comfort, we are not so sure but that the family would be greatly the gainers. Anyway it seems that the price of milk is going up, and it will probably have to rise higher still to leave a decent margin over the cost of production. We suggest the wisdom of avoiding any heavy plunges into cow keeping. There may be no immediate prospect of over-supplies of milk, but the situation will be made doubly secure by preserving a more even balance between the flocks and the herds. It is a mistake to suppose that sheep are only adapted to barren hillsides or cheap waste land. True, they will make such tracts rich and profitable, but as careful an authority as Joseph E. Wing tells us that great flocks of mutton sheep are kept in France on land worth \$250 per acre. Even with the help of the milking machine to lessen the toil on the dairy farm, a better day is due for the patient sheep.

anything domesticated with the animal itself and the process of the cultivation of plants.

But parents make a great many objections to nature study. They call it a "fad," "nonsense," complain of "waste of time on new-fangled notions," etc. It must be remembered, dear teacher, that the freest possible expression of the parent should be invited, for if we cannot find a nature study so full of human good that it will not meet and overcome all such objections, then we should devote our time to other subjects. But from the point of view of those who have had several years' experience all reasonable objections can be met, and a nature study so good can be found that this attitude of parents can be completely reversed and their interest and enthusiasm so thoroughly aroused that they will say, as Dr. Hodge says : "We had no chance to learn these things, but we wish our children might be given the opportunity and teach us.'

When the teacher has aroused the interest and enthusiasm of the parents, we shall bind home and school as nothing in the curriculum does at present. In this system of nature study, we shall have at least one subject that shall keep alive in the child the spirit of research,-under the impetus of which he makes such astounding progress in learning the great unknown of nature around him,during the first three or four years of life, instead of giving over our entire system of education to passive book-learning. If our lives are responses, the higher and more complete the response, the higher and richer must be our life. Since response presupposes knowledge, nature study must take its place in public education as one of the chief means by which the race may push forward toward the more perfect response to the order of nature, which shall be its more perfect life.

With more or less distrust in "book-larnin'," from how much impossible cram, mental assumption, moral rectitude and distress, such a relation with nature would relieve the teacher during his or her daily routine of work; without doubt, nature study would be an ideal and instructive recreation. The whole lump of our educational system would be sweetened and leavened when the natural, ideal relations of teacher to pupil would be brought out. How easy school life becomes, is the secret of nature-study teachers only. Such learning and teaching becomes transformed from a deadly mechanical grind to a living process.

Although the chief aim of nature study is to create and stimulate an interest in rural life in Ontario, yet there are many other beneficial aims. For the teacher and pupil it provides healthful exercise for body and mind, affording at the same time to the pupil an opportunity to direct his activities along useful lines; to develop at an early age habits of industry, respect for labor, a love for productive and constructive work, as well as importing useful information in agricultural sub-Being closely allied to manual training it iects. gives facility in the handling of tools and practice in garden craft. There is a great training for boys and girls to do work efficiently as well as to promote the desire to improve home surroundings. It encourages the careful observation of nature, enabling the pupil to understand his environment and to appreciate more fully the beautiful in nature. Lastly, there is the civic idea. The study of nature promotes the qualities that make for good citizenship, such as the responsibility of

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HORSES.

Do not torture your horse for the sake of complying with some fad as to correct appearances.

Chilly weather is now approaching, when the working horse should be stabled at night. Provided a good oat ration is fed, the farm work horse may be allowed to run on grass on fine nights up to the time the weather becomes raw, but to force a horse to pick his feed in a chilling wind and frosty air after doing a hard day's work, during which he perspired freely, is not in the best interests of the animal's health, and is not good practice.

A writer in the Agricultural Gazette attributes the habit or unsoundness of cribbing in horses, which ever you choose to call it, to the great change which takes place when a colt is brought in from the pastures where he eats and frolics twenty-four hours out of the day, and is placed in a stall where eating occupies a very short part of the time, and where he has nothing to do the remainder of the time except get into mischief. The smooth manger top being handy, he begins to lick it, and licking stimulates the flow of Licking leads to sucking and biting, and saliva. the habit is established. The writer referred to has nothing new to offer as a cure, the neck strap being the only known device, but as a preventive he recommends that the colt be not allowed to stand in the stall too long at a time.

We have had some reason to believe that in the recent past the horseless carriage was having effect upon the light-horse trade, but the some Horse World, a paper devoting practically all its space to light horses, particularly speed animals, has this to say of the outlook : "There appear to be the strongest reasons for believing that good stallions of every breed of horses will make big seasons next spring in every part of the country where horse-breeding is a feature. This applies to highly-bred trotting stallions as well as to stallions of other breeds, provided they are of the requisite individual excellence, have the right kind of ancestry, have proved it either on the turf or in the stud, and the public is made aware of the backing which their claims to patronage have. A good stallion with his qualifications presented to the public in the right kind of a way and through the right channels appears to be in the way of becoming an unusually good money earning proposition in 1913.'

Serious Horse-Feeding Problems

As a result of the long-continued wet weather during the summer, a large percentage of the grain and practically all the straw will be more or less damaged in quality; some to such an extent as to render it very unsafe for feeding horses. Owing to the difference in the anatomy of the stomach of the horse and that of the ox, and the consequent difference in the digestive process, the former is much more liable to stomachic diseases than the latter. Cattle can, with reasonable safety be fed on food of inferior quality if reasonable precautions are observed, but with horses the danger is much greater. Fortunately during early haying the weather was fairly good, and a considerable percentage of the hay was saved in fair condition. This fact will lessen the difficulty in the supply of bulky food, notwithstanding the fact that straw of a quality fit for food will be very scarce. We are afraid that grain of fair quality will be hard to procure. Those who have to buy grain will of course be careful to purchase only that which will be reasonably safe to feed, even though the price be high, but those who must feed that which they have grown will, in many cases, be forced to take all possible precautions in order to avoid serious digestive and other troubles. Probably the most seriously injured grain will be that which was taken into the barns when it should not have been moved. A considerable quantity of oats especially was housed when it was very damp, and should have been left in the field. The continued wet weather discouraged some farmers, and whenever there was a day or two of fairly fine weather, they drew in a few loads of grain that was only half ready. Others had more patience and decided that there was some chance for what was left in the field, but that which was put into the barn while still wet, had no chance whatever. The latter class, of course, were the wiser, as a few days of favorable weather came at last and the grain that was still in the field became dry, and while some of it had sprouted it will make reasonably good food.

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That Rural School Garden.

Editor "The Farmer's Advocate":

What about that rural-school garden for next spring, my dear teacher? Now is the time to think about it. Do not hesitate in your plans. Turn up the soil this fall and make preparations for a real school garden. Do not pass it off with the excuse that your curriculum hasn't time for Yes, your curriculum has; time is what you it. make it.

To know nature and man is the sum of earthly knowledge. The love and study of nature should be urged on every school curriculum to show how the love of art, science and religion has sprung from it. Your school will not be an ideal one unless you give nature study a central place among the other branches of studies. The important interest of nature study is two-fold : a which of the process of the domestication of anis expressed in the command in the Bible, "In a section of helpful relations, rather than

nublic property wnership respect for consider tion for the rights of others, and the principle of co-operation in seeking the common good. Also, there seems to me that a spirit of independent investigation in other hranches of study is promoted, and that the life and interests of the school are brought more closely into touch with the home life of the pupils.

This year was our first attempt in Dutton at school-gardening, and it has been a decided suc-Cess. As a result the "pedagogues" and schoolmams' convention was held in Dutton this fall instead of St. Thomas, as was the custom, to investigate our experimental work. No school is too small to have a garden of some kind. The area of the garden does not determine its success. The best garden is the one that the teacher and pupils have been most deeply interested in. The area of the garden will depend largely upon the area of the available grounds and the number of Our school garpupils taking part in the work. dens occupied about an acre, which was divided into small plots, 4 feet by 7 feet, and one large bed for each class, 10 feet to 20 feet square, known as experimental plots. Every garden should have a teacher's plot, which might be regarded as the standard of excellence. A walk at least 4 feet wide should run all around the garden with paths 3 feet wide between the class or experimental plots and the individual plots.

For the last time, dear teacher, think it over. Make up your mind to carry out the task and you will find a benefit to your school as well as to yourself. By dropping a card or letter to the Department of Education you will be willingly mailed a free book of "Elementary Agriculture and Horticulture and School Gardens," re this new subject on our school curriculum. JOHN A. FINLANSON.

Elgin Co., Ont.

DAMPENING WITH LIME WATER.

The danger of feeding dusty or musty food to horses is great. Dusty food fed for a length of time tonds to produce respiratory as well as digestive diseases, and when it is necessary to feed events of poor quality to horses it is safer to have it was set or relied. The process of milling has