THE FARMER'S ADVOCATE

comes to the surface) would grow. He found must have a regular circulation of air. We have a good system of ventilation, it would pay you

Some Points on Stable Ventilation.

One has only to call to mind the entrance into some stables on a cold or even a mild morning in winter, to have it brought home to him how necessary a thing ventilation is, and how little provision is made for it in the average stable. The reluctance to admit a sufficiency of pure air ofter finds its foundation in the fear of the temperature being brought too low, the to do anything. The windows were in two parts not start with that much outlet, but we found opinion being arrived at without the aid of the thermometer.

The Agriculurist of the Central Experimental of stables to a gathering of dairymen, and the could not do that very well in very cold weather. provided. ideas therein contained are worthy of considerattion :

that a sufficiency of air, that source of all health, without which no life can exist, is a great thing. To get a sufficiency of air, you say, is easy enough; but, judging from the odors which we find when those in the main stable, where we had a fairly darkness, to get into them. Conditions are we enter the large majority of cow stables- it good ventilation system-which, I think, proves greatly improved in that respect, I know, but is only cow stables we are talking about—you conclusively that the little expense necessary to there are still too many poorly lighted stables. would think it was a mighty scarce commodity. Every good cow stable should have about eight ment. hundred cubic feet of air space per cow. That sounds like a big space, 800 cubic feet of air space to keep our animals at a comfortable temperature per cow. It is not, however, too much space; if we have a large circulation of air going on?" than good sunlight, and if you can get your you should not have your cows all dumped up We are experimenting along that line also at stable facing the south-or better still if you have in a heap. And I would not advise you to have Ottawa, and our experiments so far go to show the end to the south and the windows facing east the air space all above the cattle. Have it all that there is very little difference in the apparent and west all along, so that the morning, noon and arvond them; that is, have good wide passages comfort of the animals whether the temperature after noon sun will come in in large quantities and give the cows lots of room in their stills, is kept at about forty or about sixty degrees. Do not crowd your cows down to $2\frac{1}{2}$ feet, but give We have two stables there, and in one of them we and make working in the stable a pleasure than them three feet, or 31 feet better still. I speak have retained the old system of ventilation and anything else I know of. If there is one thing from experience when I say that that kind is a the cattle this winter have been in a uniform the average farmer should take more pride in profitable stable. I have seen both kinds tried, temperature of about fifty-four. In the other than anything else, it is his stable. He should where the ventilation was practically equal, and stable they have been during the past month also spend more time in the stable, and it is a where a much larger space whs given the cows at a uniform temperature of about forty. they were in much better health. I have in course it has been very warm weather, and it mind two farms in this very province, in the would probably have gone down to thirty if the county of Vaudreuil, where in one, I should weather had been colder, although we can conjudge, the air space was about 700 feet, not quite trol the temperature in the stable fairly well. up to the standard, and in another dairy stable. We have been keeping that temperature at forty, I should judge there is about 300 feet of air and we have obtained milk in large quantities space, a long way below the standard. In one on about the same consumption of feed so far. get right down and stay with them. It is not the cows are continually getting sick, and the Our experiment so far seems to show that milk only the cows we are considering, but ourselves. milk is not up to the standard of quality or production in winter either does not necessitate It is not only the comfort of the cows, but of our quantity. In the other stable there is never any a very warm stable, or that it is very materially own purses we are considering when we get these complaint about the health of the animals, or the helped by perfect ventilation. I don't say which things right. Nothing will conduce more to the quantity or the quality of the milk-just as a is responsible, whether it is the increase of pure full developing of the milking powers than to keep result of having sufficient air space.

that wheat cut in the milky juice, June 26th, been experimenting along that line, to see what to do so. It might lessen your feed bills. vielded eleven bushels per acre and grew a plu- the results would be. We have noted the ob- would certainly lessen your doctor's bills. It mule six inches long. When cut July 4th in jection the farmers raise when they are recom- would certainly increase the comfort of your the dough stage, it yielded twenty-five bushels and mended to ventilate their stables, and that is, it animals. There is much less danger from lung had a plumule nine inches long. Wheat cut costs too much, it is a great expense and there is troubles and other diseases, and there is much July 10th, full yellow ripe, yielded thirty bushels no adequate return. Now I just want to say less danger from troubles with the digestive orand grew a plumule 10.1 inches long; while wheat right here that that is not exactly true. There gans, when the air conditions are perfect. That cut July 12th, when dead ripe, yielded twenty- is an adequate return from every improvement is not theoretical, but practical, from what I have eight bushels and had a plumule eleven inches in ventilation and in space given to our cattle. seen at the stable at the Experimental Farm long. While the dead ripe seed will not yield Just let me give you an instance. Some seven and in dairy stables throughout the country. The quite as many bushels of wheat, probably due to years ago we had at the Experimental Farm a system of ventilation we are using should be in shelling, it furnishes more vigorous seed. ______ stable that had been intended for sheep, and, of every stable where there is no horse-fork overcourse, the doors being always open, it was not head. The air comes in under the wall in openings necessary to have any ventilators, and no ventil- along the wall, three on each side, and goes out ators were there. It was turned into a stable at one main shaft in the center. We have in for cattle, when the returns from the farm were that stable twenty head of cattle, and we have sufficient to warrant the keeping of more stock. six square feet of inlet and seven of outlet, giving When it was turned into a cowstable no system you some idea of the space for the admission of of ventilation was introduced. When I went to air and the outlet of air necessary in order to the farm the cattle were in there and were not do- keep the temperature down to a certain point. ing any thing. We were never able to get them Now if this winter had been cold we would not to do anything. The windows were in two parts have needed nearly so much. In fact, we did was about forty-five feet long and thirty feet it necessary to increase it-on account of the wide. When the weather was favorable we damp winter, I suppose-at least we could not

> We never got the cattle to do anything worth while. Three years ago I introduced a system

The average farmer will say, "How are we going Of air or the fact that they do not need to be kept the cows in good sanitary conditions. In stables

used to lower the windows at the top; but we get it as low as necessary with the outlet first

IMPORTANCE OF LIGHT IN STABLES.

Another important thing is light. How many "In the first place I think you will all admit of ventilation there previously described and dairy stables we see all over the country where illustrated in this paper, and that year and since they are willing to have only a few windows! I then we have succeeded in getting the cattle in was in two a short time ago where you had to that stable to do quite as well, if not better than grope your way down a sort of root-house, in the procure good ventilation is a profitable invest- When a man gets about three windows on each side of his place he thinks he has a perfectly lighted stable. You cannot have too much light in your stable. There is no greater sanitary force you will do more to make your animals happy pleasure for him to do so if everything is comfortable and clean. If you had those conditions I know that you would like it. If we are going to have the cows do their best and keep them in the cheapest possible way, we must make them comfortable, and there is no more likely way than if we stay right with them. We have got to But that is not enough. We must have in very warm. Evidently, one or the other. I where the ventilation and facilities for lighting are deficient, there should he attent

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addition ventilation, because, although 800 cubic think that if you are at all able to so modify your feet of air space per cow is a great advantage, we stables as to get more air space and to introduce before freeze-up. The test of the value of a stable



PULLING STUMPS ON THE FARM OF P. J. MULLEN, MILLET, ALTA.

is during the winter months.

Notes on the Sugar Industry.

Students of the sugar beet industry in this country will be interested in the progress made on the other side of the line. There are now in operation fifty-two factories with a slicing capacity of over 45,000 tons per day. Four factories are closed on account of a scarcity of raw material and twelve new ones will be open for this fall's campaign. Nearly \$100,000,000 is now invested in the beet sugar business. Michigan leads with sixteen factories and Colorado comes second with twelve. It is estimated that the total production this year in the United States will reach 1,037,300-000 lbs. In fact so great has been the development of the industry that it is confidently predicted that the United States will soon be able to export sugar. When we note the fact that nearly all the beet sugar development has taken place within the last decade we can realize how uncle Sam is making progress.

The sugar consumption per capita in England is the largest in the world, 81.3 lbs.; in the United States it amounts to 70.4 lbs. per head. The average consumption of the civilized world is 34.9 lbs.