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SOME SYSTEM OF VENTILATION NEEDED IN FARM STABLES

Hg. Glendinning, Ontario Co., Ont.

Few Canadian Stables Have a Satisfactory and Efficient System of Ventilation. Foul Air is at the Floor. A Practical Method of Removing it. Unventilated Quarters Favor the Spread of Disease.

BETTER ventilation is one of the great needs of the Canadian farm stable. Rarely can one find a stable that is well ventilated and at the same time, warm during cold weather.

Ventilation consists of open feed chutes, doors, windows and tile along the top of the walls. Any or all of these will give a fair amount of satisfactory ventilation when the weather is mild. An open chute or door leading to the barn above, however, will take away the hot air near the ceiling and cause a downward draught of cold air that chills any animal that may have the misfortune to be kept near it. The same may be said of the tile in the wall, the cold air will come from the side from which the wind blows.

CAUSE INJURY TO MILKERS.

If windows are opened from the bottom they give a downward tendency to the air current which is very injurious to milch cows. Many a case of garget in heavy milkers can be attributed to draughts from such windows. Having the window to open from the top by sloping inwards, is better, but it allows much of the warm weather to escape that should be retained.

A common fallacy is the belief that warm air is foul and cold air is pure. It is neither hot nor cold that makes air foul or pure. It is thought by some that if there is no smell of manure, decayed roots or silage in the stable, that the air must be pure. What

is properly known as foul air is that which has had the oxygen taken from it, by the animals in the act of breathing, and has been charged with carbon dioxide or carbonic acid gas thrown off from the body through the lungs. This gas is poisonous. Carbon dioxide is about one and a half times as heavy as pure air, consequently it settles to the floor of the stable.

A SIMPLE EXPERIMENT.

This point can be settled by means of a simple experiment. Take some ground limestone and place it in a common glass fruit jar. Then pour a few drops of hydrochloric acid on the limestone. It will be seen to bubble and throw off gas. This gas is colorless. If a lighted match or tapers is put

into the jar the fire is at once extinguished. This colorless carbonic acid gas may be poured from one vessel to another not unlike water. It may be allowed to stand in a quiet room in an uncovered jar over night and even then it will extinguish a lighted match in the morning.

Any place where a light will not burn is death to animal life. This simple experiment demonstrates that we have to deal with an invisible, deadly foe to animal life in our stables, and that this "poison" is found in the largest quantities near the floor.

GETTING RID OF POISON.

Our aim should be to take this away from our stables without allowing the warm and purer air

that it will shoot the air towards the ceiling when it enters. This fresh air is heated by the warm air near the ceiling before being breathed by the animals. The hinged door can be made use of for closing the intakes when there is a strong wind blowing from that direction.

CAUSE OF TROUBLE.

Complaint is frequently made concerning the flies leading from the stable to the roof in that they fill up with frost. This usually occurs from two causes. First, from the flies being too small, second from not having a full supply of fresh air coming into the stable to make a rapid current out through the intake pipe.

The blocking of these pipes is on the same principle as that of the kitchen stove that has the damper closed by the housewife whenever there is a good fire, and a good draught in the chimney. The closing of the damper causes a slow circulation of the smoke. This condenses and forms soot, which leads to a burn-out every three or four weeks. If the damper had been left open there would have been little soot from and no resultant burn out of the chimney.

CAUSE OF DISEASE.

The day of keeping our stables tightly sealed up and making no provision for an effective system of supplying fresh air cannot too soon pass. Disease, such as tuberculosis, is becoming more and more prevalent, and, in a measure at least, its spread is due to the unhealthy condition of the atmosphere in which much of our stock is kept.

Lessened Production

August records received at Ottawa from members of cow testing associations indicate that in most districts the flow of milk is well up to the average.

In some localities there is but a very slight decrease from July yield of milk, so slight, that the increasing richness shows a trifle higher yield of fat.

In other localities, unfortunately, there is a very marked shrinkage, as much as 120 lbs., and even 180 lbs. milk per cow less than in July. Many dairy farmers have, accordingly, vowed that next year will not see them caught without any provision for maintaining the flow, but they have determined to provide some soiling crop, and if possible build a silo, so as to ensure succulent feed for probable hot spells in July and August. Such men are wise.

(Continued on page 12.)



The Residence in Connection with a Noted Quebec Farm

The house illustrated is on the farm near Montreal, belonging to Mr. J. N. Drummond. This farm is a part of the farm owned by the late John Drummond, grand uncle of the present owner. It won first prize in the "sixties" as the best farm in the Province, gold medal in the "eighties," when farmed by James Drummond, father of present owner, and has several times since won prizes at the best managed farm in the County of Hochelaga.

near the ceiling to escape. Such can be accomplished through ventilation by means of a large abated pipe extending from the roof down to within about 10 inches of the floor. This will take the poisonous air out of the stable, but in order to work properly it must be replaced by pure air from outside.

If we make our opening for the fresh air near the floor or at the lower part of the windows, it is liable to cause a draught. This can be avoided by making an opening near the ground on the outside of the wall and conducting it through a flue or box in the wall and liberating it in the stable near the ceiling. It is well to have a small door at this opening hinged on the under side, so