

FARM AND DAIRY & RURAL HOME

Vol. XXXI.

FOR WEEK ENDING JANUARY, 18, 1912.

No. 3

IMPORTANT CONSIDERATIONS ON THE SANITARY STABLING OF CATTLE*

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Fresh Air of More Importance than Warmth in the Dairy Stable. Sunlight and Outdoor Exercise Important Factors in Preserving the Health of Animals.

SOUND health is one of the most important attributes of either man or beast. There is probably not a man present who would purchase an animal for any purpose if he had reason to doubt the soundness of its health. Unfortunately, however, there are too many of us who are not willing to admit that it is necessary to observe the laws of health in the handling of cattle, for the reason that cattle are able to adapt themselves to a wider range of conditions, and to keep apparently healthy under favorable conditions for a longer period of time than most other kinds of stock. The average man, therefore, is very apt to believe that an animal which appears healthy and thrifty is necessarily sound, and it is this point of view which makes so many people careless in connection with the health of their cattle.



Prof. Geo. E. Day

It is time, however, that we look at these matters from a different standpoint. We must remember that all things are not what they seem, that the seeds of disease may be sown and largely developed before the animal shows any clinical symptoms, and that, in the case of slow moving diseases that are fostered under unsanitary conditions, it is usually too late to apply any remedy when the symptoms become apparent.

LIKE A THIEF IN THE NIGHT

Tuberculosis is a striking example of the class of diseases just mentioned. The man who fondly believes that no tuberculosis exists in his herd because there are no apparent symptoms, and therefore regards sanitary precautions unnecessary, is liable to receive a rude awakening some day. Many well advanced cases of tuberculosis show no clinical symptoms, and what appears to be a healthy cow may be a constant source of danger to the herd in which she is kept. We can never afford, therefore, to be lax in our efforts to maintain sanitary surroundings for our cattle, because we never know how or when disease may secretly work its way into our herd, and the wise man will aim to maintain conditions which are unfavorable to the development of disease germs.

Effective ventilation is one of the first requisites of a sanitary stable. Any system of ventilation which depends upon the opening and closing of windows can scarcely be regarded as satisfactory, for the reason that there are times when it is scarcely safe to have windows open, and consequently there are sure to be times when the stable has practically no ventilation. A good system of ventilation works constantly, because it is necessary to have the air frequently renewed during both day and night. No stable can be re-

garded as fully equipped without some reasonably thorough and systematic method of ventilation.

There are two methods of ventilation which are very generally approved. One of these admits the fresh air at or near the ceiling, and has the outlets so arranged that they draw the foul air from near the floor. It is customary in this system to have openings in the outlet flues near the ceiling which may be opened if the stable becomes too warm. The main difficulty we have experi-

The Best Varieties—Experimental Union Tests

Experiments	Varieties	Comparative Value	Straw (tons)	Yield per Acre (bush.)	Grain (lbs.)
Oats (87 tests)—					
	O.A.C. No. 72	100	1.25	39.81	1364
	Siberian	88	1.33	36.73	1217
	Regenerated Abundance	93	1.13	33.29	1272
	Lincoln	74	1.13	34.82	1184
	Six-rowed barley (35 tests)	100	1.08	—	1531
	Emmer	80	1.06	27.67	1358
	O.A.C. No. 10	100	1.88	33.87	1402
	Hull-less barley (3 tests)	100	1.53	31.21	1373
	Guy Marie	82	1.19	19.00	1176
	Spring Wheat (14 tests)	100	1.07	15.73	1204
	Wild Goose	100	1.06	34.24	1374
	Black Hull-less	79	1.07	15.73	1204
	Emmer & Speltz (3 tests)	100	1.23	18.59	1315
	Common Emmer	87	1.06	16.33	914
	Alstroum Speltz	53	4.00	23.43	1200
	Buckwheat (3 tests)	100	1.36	15.20	724
	Rye	95	1.71	10.96	327
	Silver Wheat (24 tests)	100	1.21	23.90	1428
	American Banner	96	1.20	23.94	1400
	Imperial Amber	100	1.20	23.90	1392
	Thomasian Red	91	1.20	20.73	1244
	No. 5 Red	65	1.20	20.73	1244
	Crimson Red	57	1.06	19.18	1151
	Winter Rye (2 tests)	100	2.91	24.83	1290
	Hammoth White	100	2.91	24.83	1290
	Common White	67	1.04	17.91	1003
	Spring Rye (7 tests)	100	1.04	17.91	1003
	Common	67	1.06	16.33	914
	Field Peas (27 tests)	100	1.35	17.89	1074
	New Canadian Beauty	100	1.05	17.84	1070
	Early Britain	85	1.23	18.59	1315
	Field Beans	96	1.07	18.25	1095
	Marrowfat	90	1.10	17.91	1074
	New Prize Winner	90	1.10	17.91	1074
	White Wonder	100	1.10	17.91	1074
	Whole Crop	100	1.10	17.91	1074
	Early California Flint	100	8.90	47.63	2667
	Greeneye Valley	59	6.18	45.20	2462
	Wisconsin Little Dent	82	4.91	41.94	2349

enced with this system of ventilation is to find some method of distributing the fresh air when it comes in near the ceiling without causing cold draughts upon some of the animals. It is also well known that the foul air, while it is warm, ascends to the ceiling, and consequently having outlets near the floor does not admit of removing the foul air immediately.

The other well known system removes the foul air through flues opening at the ceiling and running up through the roof of the barn, and brings in the fresh air through openings near the floor. The inlets are guarded both outside and inside, so as to prevent direct draughts upon the animals, and the outlets, opening as they do at the ceiling, are in a position to remove the foul air

immediately it ascends to the ceiling. The outlet flues are better to run perfectly straight from the ceiling out through the roof, and the top of the outlet should be higher than the peak of the roof.

THE SYSTEM PREFERRED.

Our experience leads us to prefer this system of ventilation to the one first mentioned, though it causes a lower temperature in the stable than the one wherein the foul air is drawn from near the floor. It is simple, inexpensive and effective, and when properly arranged does not permit of any draughts, which is an important consideration.

Many other systems of ventilation might be discussed, but it would scarcely be profitable to do so at this time, and the two systems mentioned are undoubtedly the two best systems known.

It is impossible to have a really thorough system of ventilation without materially lowering the temperature of the stable, and it is this fact which undoubtedly leads many people to neglect thorough ventilation, for the reason that they wish to maintain a fairly high temperature. Dairymen especially seem to be convinced that a high temperature in the stable is necessary to the highest milk production. There may be something in this contention, but, after all, it is worth while to run the risk of ruining the health of our whole herd in order to break a few milk records? From some incomplete experiments, indications are that a high stable temperature for dairy cows is not so necessary as many people suppose.

VERY WARM DAIRY STABLES NOT NECESSARY

If the air is reasonably dry and pure and the cow is accustomed to the conditions, results of our work would indicate that rather low temperatures apparently do not materially affect the milk yield. Of course if a cow were taken from a warm stable into a cold one she would suffer, but if she is placed in a well ventilated stable in the fall and gradually becomes accustomed to a lower temperature as the weather becomes colder, she does not appear to suffer much inconvenience. In fact, it will generally be found that the attendants are the ones who object to the low temperature, rather than the cow. Good, clean air, so long as it is not accompanied by draughts, is of far greater importance to any cow than a high stable temperature.

There is an advantage in having a fairly cool stable, in that it enables the cows to enjoy a short time out of doors each day without suffering any inconvenience; whereas, if they are kept in a very warm stable it is almost dangerous to turn them out at all, and the chances are that their milk flow will be affected if they are turned out, even for a short time, on a cold day. Outdoor exercise, though it may be for only a few minutes in very extreme weather, is an important means of maintaining the health and vigor of cattle.

OUTDOOR EXERCISE PREVENTS TUBERCULOSIS.

Those cattle which have regular outdoor exercise are much less liable to contract tuberculosis than those which are constantly stabled throughout the winter. Constant confinement in a

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*An address at the Guelph Winter Fair.