

HIDE-BOUND.

Hide-bound is an expressive term, used to denote that dry harsh feel, which is so often seen in unhealthy beasts as an accompaniment of disease. It is dependent upon all absence of the *sebaceous secretion*—a peculiar, oily, product. Hide-bound is not a disease in itself, but merely a *symptom*, and as such, can only be treated by removing the primary cause of the animal's unhealthiness, and thus restoring the suspended functions of the skin. When it appears without any assignable cause, disease of the digestive organs may be suspected, and a mild purgative given, followed up by a course of alteratives.

It is to an absence or suppression of the *sebaceous secretion*, that, that dry, unthrifty look is given to the skin, in various diseases with which the skin sympathizes; and it is to a due supply of this agent that that beautiful glossy look is seen in animals laying on flesh and doing well.

Correspondence.

For the Farmers' Advocate.

Exhausted Soils and Artificial Manures.

MR. EDITOR,—In my perambulations thro' the agricultural districts in various parts of this Dominion, as well as in my conversations with farmers, I hear frequent remarks to this effect, that their crops are becoming light, and that their land is run out, or in other words it is exhausted. Now this is a most lamentable state of things, and I want to see, if with my small and feeble abilities, I cannot show a cause for this, and suggest a remedy. In the first place I think I shall be able to make and prove an assertion, that will remain uncontradicted as to what causes this decay of the earth to yield her quota year after year of grain. It is the system that prevails here of tilling crops of grain continuously season after season, without a change or rotation of a green or root crop. I am not going to assert that my arguments will apply to a piece of forest or virgin land. Experience has shown that for a number of years it is immaterial how many grain crops are grown and taken off this, each one as heavy as its predecessor, but after awhile we arrive at where? to a place called Stop!! And it is then the husbandman says, my land is exhausted, and I ask in all reasonableness, is this to be wondered at? The heavy and successive grain crops have absorbed those elements in the soil that are so necessary to sustain the growth of them. To enumerate, the straw of wheat contains a large quantity of flint, which it

annually exhausts from the soil, as well as lime, and it is when these elements of support are drawn out, that wheat begins to deteriorate. In barley and oat straw there is contained a less quantity of these matters, but a portion is essential and is required to sustain and mature them. When I was farming I tried I think as many experiments as but few, but I never found any system to excel what is known in England as the four field mode of cropping. We broke our Ley land (what is termed in Canada the sod) for Wheat, second year it was put into Oats, then the year after into Marigolds and Swedes. The ground was thoroughly cleansed of all grass and weeds, previous to putting in these, as ground can never be too clean for roots, and after the crop was well hoed and horse-hoed twice, the fourth year it was put into Barley or Oats, and then seeded down with Clover and Grass Seeds. This process is considered the best in order that land may be thoroughly cleaned before laid down to permanent pasture, but in carrying out this process, we never hear of land becoming exhausted or worn out (except with indifferent farmers) and the reason is this, that it is liberally supplied with fertilizers to support it, in the shape of artificial manures. These are legion, all more or less containing chemically what the soil requires, and what a crop delights in. First and foremost among these is Bone dust, one of the most valuable manures that can be administered to the earth. I have tried it on every description of crop, and have seen it used on worn-out land, and nothing can equal it in its stimulating properties. It causes a Wheat crop to increase, and the straw to stand stiff, and when sown in the Spring as a top dressing, it is astonishing to see its effects in the course of a short time, and what a black, green luxuriant color it will impart to it. It is equally efficacious on Barley or Oats, and for root crops of all sorts it defies competition.

I am sorry to find that there is so little of any kind of artificial manure used in Canada. This savors somewhat of carelessness and parsimony, as I see raw bones lying about in every direction, and there is no difficulty about getting any quantity. I have been making a careful calculation, and I find that a bone manure that costs in England now £8 stg., per ton, can be made here for about £5, or \$25 per ton. The trouble of making it is

little, and is within the pale of comprehension of the most ordinary person. The utensils required are inexpensive, so that every farmer can make his own, with the satisfaction of knowing it is genuine, and he can make it of what quality or strength he likes, and in proportion as he makes it of the latter, so it will take less of the former. The quantity required for Wheat is from three to six hundred weight per acre, Barley and Oats from two to four, grass land about three. For roots I have found the most efficacious way to use eight bushels per acre rough, or what is termed half inch, and two hundred weight of dissolved all mixed together. I will guarantee that nothing will be found so durable and lasting as Bone. I have seen its effects for fourteen years after, from a single dressing. This may be thought incredible by some, but all I have to say is, let those of your readers who are dubious or skeptical on the subject make a trial of it and they will be I think, like I was, astonished at its telling results, and lasting properties in the soil. I at first purchased my annual consumption, but after awhile discovered, that owing to a keen competition, some unscrupulous makers began to adulterate. Having a knowledge of Chemistry, I determined to make my own, and purchased the raw material, took it to a Bone mill, got it reduced to the proper size, got a few inexpensive articles made to make it in, and soon found that I could compound a much more superior article, for the same money, with the satisfaction of knowing it was genuine, and the advantage of making it any strength required.

Another thing to, farmers must use here, and that to in great quantities, is common salt. This is a most valuable manure, and Canada being so remote from the sea, the air contains no saline matter, so essential to the perfection of all crops. Moreover should any have a piece of strong land, into a grain crop, and are fearful it will become lodged, let them sow about four cwt. to the acre, and I will undertake to say that it will not cripple down. A liberal use of this on all grain crops, grown in strong land will cause it to stand up well, and this will as every farmers knows, cause the grain to mature properly, to say nothing in the extra time saved of harvesting. The cost is small, and those who use it will find its advantages manifold. It is just as telling on poor or worn-out land.