

AGRICULTURAL.

EXHAUSTION OF LAND BY GRAZING. It is supposed by many persons that exhaustion of the soil is the result of cropping, and that it is impossible that the productive powers of the soil can be reduced if the land is kept for a lengthened period in grass. Because old grass land, when broken up, produces larger crops of oats than it perhaps did previous to being let out as pasture, it is inferred that pasturing has improved the land, and that grazing, therefore cannot be exhaustive. This improvement may be perfectly true as regards the production of a crop of oats, or even more than one crop, after pasture, and yet it may be incorrect with respect to the growth of those grasses which formed the pasture.

The clovers, fescues, cocksfoot, and other grasses which constitute our best pastures, and the couch grass, and knot grass, which prevail on inferior grazing lands, or the thistles, nettles and docks which abound everywhere, require inorganic food as much as oats or wheat in order to bring them to maturity. These plants consume large quantities of potash, phosphate of lime, and other varieties of inorganic matter as their food, and that food they draw from the soil. If the food required by the plant, whether it be wheat or thistles, does not exist in the soil, the plant will not grow. If the seed vegetates, the plant would die, just as a child would perish which was denied its natural sustenance.

But, it may be said, we reap our corn crops and carry them away, so that it is easy to understand how a succession of such crops will exhaust the soil, while, on the other hand, the grasses after a time die and decompose on the spot where they grow, thus yielding up their constituent parts to become food for another generation of similar plants. This may be true of grass lands which have never been marked by the hoofs of any grass eating animal; but it does not apply to the ordinary state of pastures which are regularly fed upon by cattle, sheep and horses. These animals consume the grasses, and carry away the substance of the plants in the shape of bones, flesh, hair, wool, milk, and blood. Hence, the consumption of grasses by animals is a direct means of exhausting the inorganic constituents of the soil. Young growing animals, milk cows, and draught horses require large supplies of phosphates to form bones, blood, milk and muscle, and as the necessary supplies can only be obtained through the grasses upon which the animals feed, there is no difficulty in understanding the reason why the phosphates in the soil of pasture land devoted chiefly to the grazing of such animals should gradually become exhausted. There is no manufactory of phosphates at work underneath to meet the exhaustive process repeated year after year on the surface. Fattening stock do not exhaust the soil to the same extent as store or dairy cattle; but if grass lands, even of the best quality, are meadowed, so that the produce is converted into hay and carried away, even those grass lands will speedily deteriorate, unless the exhaustion caused by meadowing is counter-balanced by the direct application of large quantities of manure in the form of top-dressing.

But some may argue that even where store and dairy cattle are grazed, the land is enriched by the dung and urine of the animals. This is true to a certain extent; and were it not so, the land would become sooner exhausted than it is under ordinary circumstances. It must be remembered, however, that the excrements of animals form but a small proportion compared with the amount of food consumed, and the dung is of less value fertilizing the pasture from the circumstance that it falls in small heaps, and being usually allowed to lie where it fell, produces only tufts of rank, coarse grass, which cattle do not readily eat. This may, of course, be obviated by spreading the droppings regularly; but this is a point in the management of grass lands which is rarely practiced.—Irish Farmers' Gazette.

Mail Directory. Arrives from the north daily at 12 m. Departs both ways at 10:30 a. m. From Portland via Taylor's bridge and Newberg, weekly. Arrives at 8 p. m. on Saturday. Departs at 7 a. m. on Friday. Dayton 6 times a week. Arrives at 3 p. m. Departs at 4.

Yamhill County Directory. County Judge M. M. Ramsey. Clerk R. H. Lamson. Sheriff R. P. Bird. Treasurer J. M. Kelly. Co. Commissioners Dawson Hulley. Surveyor C. Handley. Assessor I. Davis. School Supt. H. H. Hewitt. Coroner Dr. Johnson.

OREGON OFFICIAL DIRECTORY. EXECUTIVE DEPARTMENT. Governor L. P. Grover. Secretary of State S. F. Chadwick. Treasurer of State L. E. Elschner. State Librarian S. C. Simpson. Register of State Lands E. S. McComas.

LEGISLATURE. State Senator J. W. Cowles. Rep's T. R. Harrison. A. R. Burbank.

U. S. Senator James K. Kelley. Congressman J. H. Mitchell. J. G. Wilson.

FEDERAL OFFICERS. U. S. District Judge M. P. Deady. U. S. Marshal Thos. G. Young. Clerk U. S. Court R. Wilcox. Surveyor General W. H. Odell. Supt. Ind. Affairs T. B. Odneal. U. S. Assessor Thos. Frazer. U. S. Collector W. Bowley.

LAND OFFICERS. W. R. Willis, Register. Roseburg. R. Herman, Receiver. Jackson. Owen Wade, Register. Oregon City. Henry Warren, Receiver. La Grande. D. Chaplin, Receiver.

JUDICIAL DISTRICTS. First District: Jackson and Josephine. 2d District: Benton, Coos, Curry, Douglas and Lane. 3d District: Linn, Marion, Polk, Tillamook and Yamhill. 4th District: Clackamas, Columbia, Multnomah, and Washington. 5th District: Grant, Clatsop, Union and Wasco.

TERMS OF CIRCUIT COURTS. First District—In the county of Josephine, on the fourth Monday in October; Jackson, second Monday in February, June and November. Second District—Douglas third Monday in October, and second Monday in May; Coos, fourth Monday in May, and second Monday in September; Curry, first Monday in June; Lane, third Monday in April, and first Monday in November; Benton, second Monday in April, and third Monday in November.

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Circular to the Liberal Public.

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To Correspondents. Patients residing in any part of the State however distant, who may desire the opinion and advice of Dr. W. K. DOHERTY in their respective cases, and who think proper to submit a written statement of such, in preference to holding a personal interview, are respectfully assured that their communications will be held most sacred and confidential. If the case be fully and candidly described, personal nomination will be unnecessary, as instructions for diet, regimen and the general treatment of the case (including the remedies) will be forwarded without delay, and in such a manner as to convey no idea of the purport of the letter or parcel so transmitted.

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