

ON THE LAND

MARKET REPORTS.

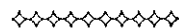
A large yarding of fat cattle came forward for last week's sale at Burnside, 280 being penned. Prices opened firm at the previous week's rates, but as the sale progressed showed a decline of from 10s to 15s per head. This drop was most noticeable in medium and unfinished sorts. Extra heavy-weight bullocks sold to £19 15s, prime £14 15s to £16 5s, medium from £12 to £13 2s 6d, lighter kinds from £9 17s 6d upwards, best cows and heifers to £10 15s, medium from £6 5s to £8 10s, others from £6 12s 6d upwards. Fat Sheep—There was an extra large yarding of sheep forward for last week's sale, 4418 being penned. No outside buyers were operating, and as the number forward was much in excess of butchers' requirements prices showed an average drop of about 2s and 3s per head. The drop was not so noticeable in heavy sheep, but medium and unfinished sorts suffered most. Prices for these in some cases were 4s per head below the preceding week's level. Extra prime heavy-weight wethers sold from 27s to 30s 9d, prime wethers from 23s 9d to 26s, medium from 17s to 20s, lighter kinds from 14s upwards. A pen of shorn wethers realised 21s 6d. Others sold at from 16s to 19s. Extra prime heavy-weight ewes sold from 18s 3d to 20s, prime ewes from 15s 9d to 17s, medium sorts from 12s to 14s 3d, lighter kinds from 11s upwards. Spring Lambs.—There was a larger yarding of lambs forward than on the previous week, 217 being penned. The quality was very ordinary, and, on the whole, the sale was not very brisk. Prices showed a decline on the preceding week to the extent of about 2s. Extra prime lambs to 26s 3d, prime lambs from 18s to 20s 3d, medium from 14s to 16s 6d, others from 10s upwards. Pigs.—A small number of pigs was offered. There was not sufficient for butchers' requirements. Competition was very keen, and prices showed an advance of fully £1 per head.



PLANTS AND MOISTURE.

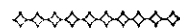
The plant is a living organism which derives its supply of moisture from the soil and dissolved in this the nutrient elements on which it lives; further, through its foliage or leaves, it, under the influence of sunlight, transforms the air which it breathes into food for its sustenance and for its reproductive system in producing seed. A plant in bright light mutates the carbon dioxide of the air into starch and distributes it to this part or that part which needs it, or, as in the case of the potato, stores it up in tuber form, and so passes on a vegetative stock, which, like a cut slip, will under favoring conditions of temperature and moisture, bud forth anew and give existence to a derived plant. Yet plants in the day time, while they drink in air through the fine openings or stomata which are scattered over the upper, but more especially on the under surface of the leaves, also pass it out—in other words, they breathe. Thus, while they assimilate strongly during the day, they in consequence freshen the air to animal life by the removal of carbon dioxide. This is the chief excretory product of all things living, whether animal or vegetable, which pollutes the air and needs constant removal if, as in the case of animals, at least a fully oxygenated blood supply is to be borne to the heart to keep the machine working effectively. Thus plants have a normal constructive process, and they have also an exhaust pipe or pipes through which they can, and do, dissipate the broken down remnants of their structure entailed by the very act of living. These twin processes of building up and breaking down wax and wane in sympathy towards each other as the night passes into the day and the day into the night. Building up or the production of starch is strong during the day hours of sunlight, and the ordinary breathing process or exhalation of carbon dioxide is reduced to the minimum, though the function never ceases, however it may dwindle. On the other hand, during the night hours there is a complete check to the manufacturing or assimilating functions of the plant, and breathing is then as normal as in the human being, who takes in the fresh air charged with oxygen to sustain his blood supply and breathes out the

broken-up products of his working system. These two functions of the plant are all-important so far as its relationship to the air goes; but its relationship to the soil and the mineral food which the soil conveys through the tiny rootlets which hug and intertwine the fine soil particles is as equally essential. Some plants and families of plants are great soil grubbers; their root system explores every corner of the soil layer in which by nature they prefer to forage, and suck up every trace of decayed organic or nitrogenous matter it contains, and also take full toll of whatever soluble mineral matter chances to be there.



DAIRY COWS REQUIRE GOOD PASTURE.

It must not be expected (says the *Farmers' Union Advocate*) that good stock can be produced on poor and scanty herbage, or milk either, and therefore it is most essential from every point of view to do our utmost to improve the quality of our poorer grass lands so that the work of our live stock improvers may not be rendered nugatory. Nature's law of equivalents lays it down that "something must be paid for everything, for it is impossible to produce anything from nothing." With regard to dairy cows, then, how can we expect them to maintain condition and give a reasonable quantity of milk on grass land which is so poor in quality that the animals can barely live. In this case we look to them to produce milk and flesh from food so poor in nature as to be in reality "nothing." Cows must, first of all, live before they can produce any milk at all from the food they eat, and about two-thirds of the food goes to keep them in fair condition before any milk at all can be made from it, and therefore if cows are grazed on pastures which carry only a poor and scanty herbage, they cannot supply the wants of the system, leave alone give any milk, and so with young growing animals when they are on poverty-stricken land and they lose their calf-flesh, their frames become stunted, their skins hard, and the only part of the body which makes any growth is the horns. All profit that comes either from a dairy cow or a grazing beast is derived from the food over and above that which is necessary to sustain life, and so a cow which gives no more than 300 gallons of milk in a season is kept at a loss, and a grazing animal which weighs no more at the end of the summer than when turned out in spring cannot possibly leave any profit; so that the quality and condition of our pastures has everything to do with the profitable breeding and raising of commercial stock and with economic milk production.



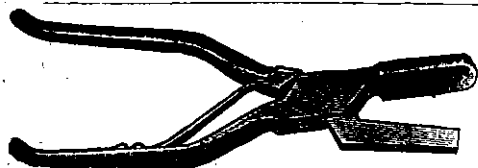
CARE IN THE HANDLING OF MILK.

No product demands to be handled with more punctilious cleanliness and care than milk. In the following paragraphs in a recent *Agricultural Gazette* (Australia) a cheese-making expert urges the importance of straining and cooling:—

After the milk is drawn it should be thoroughly strained into either cans or a vat placed over a pipe-cooler. Various kinds of strainers are in use. Those with one piece of gauze only in the bottom are of little value, as they do not collect small particles of dirt. The best strainer to employ is that with two gauze strainers, and a piece of lint placed between them. A fresh piece of lint should be used for each milking and the used one destroyed by burning. At a cheese dairy, if four thicknesses of cheese cloth are tied to the bottom of the strainer, good filtration will be effected. It is very necessary, if this method is practised, that the cloth be thoroughly washed and boiled, otherwise it becomes foul and contamination is sure to occur.

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