

The report on the weather has been compiled at the Central Meteorological Office. It is unnecessary to say that it is both valuable and complete. The weather must always occupy an important place in the economy of crops, and it is very desirable that we should have a scientific record of it in connection with the crop reports.—*National Farmer*.

The following information regarding the commercial value of Fertilizers is taken from a communication by George H. Cook in the *National Farmer*, Washington, D. C., a weekly paper which is the ablest agricultural periodical published at the present time in the United States :

Prices for various constituents of commercial fertilizers, deduced from a careful examination of the market prices for the latter half of 1881, by Prof. S. W. Johnson, Director, and Dr. E. H. Jenkins, Chemist, of the Connecticut Agricultural Experiment Station, Dr. Chas. A. Goosman, Inspector of Fertilizers of Massachusetts, and the Director and Chemist of the station. Prices used at the station last year are put down for comparison.

	1881.	1882.
	Cents per lb.	
Nitrogen in nitrates.....	26	26
" in ammonia salts.....	2½	29
" in Peruvian guano, fine-stamped bone, dried and fine ground blood, tucal, and fish, superphosphates, and special manures.....	20	24
" in coarse or moist blood, meat or tankage, cotton seed, linseed, and castor pomace.....	16	18
" in fine-ground bone, horn and wool dust.....	15	17
" in fine medium bone.....	14	15
" in medium bone.....	12	14
" in coarse medium bone.....	12	13
" in coarse bone, horn shavings, hair and fish scrap.....	11	11
Phosphoric acid, soluble in water.....	12½	12½
" "reverted" and in Peruvian guano.....	9	9
" "insoluble, in fine bone, fish-guano, and superphosphates.....	6	6
" "insoluble, in fine medium bone.....	5½	5½
" "insoluble, in medium bone.....	5	5
" "insoluble, in coarse bone, bone-ash, and bone-black.....	4	4
" "insoluble, in fine-ground rock phosphate.....	3½	3
Potash, in high-grade sulphate.....	7½	7
" in low-grade sulphate and kalic.....	5½	5
" in muriate or potassium chloride.....	4½	5

A number of fertilizers very highly esteemed by farmers, and which found large use, are not included in the above list. They are comparatively bulky and of small cost at first, and the prices for them are mainly made from the expenses incurred in handling and transporting them. Lime, slacked and unslacked, green sand marl, shell marl, muck ground limestone, etc., are of this class. It is very rare that lime can be valued above a quarter of a cent a pound.

Muck contains a little nitrogen, but it is so combined that it is liberated but

slowly, and its mineral constituents are valueless. The chief value of muck must be found in its usefulness as an absorbent of liquid manures and in its effects in improving the texture of soils.

In many published analyses the ammonia is given instead of its equivalent, nitrogen. The following are the prices adopted for it in its different sources :

Ammonia in nitrates.....	21.4 cents.
" in ammonia salts.....	23.0 "
" in Peruvian guano, &c.....	17.3 "
" in coarse or moist blood, &c.....	14.8 "
" in fine-ground bone, &c.....	11.0 "
" in fine medium bone.....	12.4 "
" in coarse medium bone.....	11.6 "
" in coarse bone, &c.....	9.1 "

Every farmer is interested in the practical use of this table of prices ; for those who may not yet have practiced such calculations the following example is worked out :

ANALYSIS.

Nitrogen from ammonia salts.....	4.5 to 5 per cent.
Phosphoric acid, soluble.....	8.0 to 10 "
Potash, in high grade sulphate.....	6.0 to 7 "

All these percentages in the analysis are the same as the number of pounds in one hundred pounds of the fertilizer, the number of pounds of each constituent in a ton can be found by multiplying each of the constituents by 20. Thus, in the above example, there are in each ton :

Nitrogen from ammonia salts.....	90 to 100 pounds.
Phosphoric acid, soluble.....	160 to 200 "
Potash, in high grade sulphate.....	120 to 140 "

And the valuations made from these weights are found by multiplying the amount of nitrogen in the ton by 29, our price for nitrogen in ammonia salts ; the amount of phosphoric acid in the ton by 12½, our price for soluble phosphoric acid, and the amount of potash in the ton by 7, our price for potash in high grade sulphate. The valuations for the ton are then as follows :

Nitrogen in ammonia salts.....	\$26 10 to \$29 00
Phosphoric acid, soluble.....	20 00 to 25 00
Potash, in high grade sulphate.....	8 40 to 9 80
	\$54 50 to \$63 80

A little practice will enable any farmer to make similar computations from the analyses which are attached to packages of fertilizers in market, and, guided by these figures and his own good judgment in trade, and his experience of requirements of his soil and crops, he can make his purchases with enlightened confidence. It must, however, always be born in mind that these are only comparative valuations. The retail prices of fertilizers at any local market properly depends only in part upon the price of its constituents in the greater markets. The cost of transportation, credit given, amount of sales, etc., must necessarily be provided for in the price asked of the consumer.

THE APPLE CROP in Nova Scotia, which is every successive year increasing in quantity and importance, is rather irregular this season. The trees appear to have blossomed very full in most or-

chards, but it is only in some that there will be a heavy crop of fruit. The following account of the crops anticipated in the United States, France, Germany, Holland and Belgium, is from the *Garden*, a London publication :—

AMERICAN APPLES.—The reports which we have received from Messrs. J. W. Draper & Son, Covent Garden, the principal London agents for the sale of these fruits, indicate that the crop is most prolific this season. From personal observation we gather that in England the crop is comparatively a failure ; in France a poor half crop is calculated upon ; in Germany one-third crop only ; in Holland only half a crop ; and in Belgium not half a crop,—thus the prospects were never more favorable for shipments from America to England than they are this year. The American apple trade, formerly monopolized by Liverpool, has during the last few years (in consequence of direct steam communication) been gradually diverted to London, which market now competes favorably with that of Liverpool.

HISTORY OF THE PICTOU CATTLE DISEASE.

No. IV.

*Preliminary report on the Disease of Cattle at Pictou, Nova Scotia, and adjoining Districts, addressed to Hon. J. H. Pope, Minister of Agriculture, by D. McEachran, F. R. C. V. S., Inspector of Stock.*

[Continued from last Number.]

DEFICIENCY OF ALBUMENIDS IN THE FOOD.

A careful consideration of the information we possess with regard to the pathological conditions found in this disease, lead me to suspect that there may be an intimate relation between the disease and the inferior quality of the food on which the animals subsist, especially the hay, which, as a rule, is cut late, often after it has gone to seed, when it is well known it has lost most of the albumenoids. By reference to Professor Lawson's report it will be seen that "throughout the district the pastures are remarkable for the large quantities of weeds growing in them. The most conspicuous herbaceous plants in many of the pastures, with a single exception, were the native solidagos and asters, and other perennials that are usually avoided by cattle, although not known to have injurious effects. The most remarkable plant in the district is a European weed that has been naturalized around the town of Pictou, and in some cases fills whole fields to the exclusion of useful herbage." (Ragwort.)

From these remarks it will be seen that hay grown on such fields and under such a system of cultivation will be of the poorest quality.

It is a well-known fact that albumenoids are most abundant in the plant