animals the choice morsels of flesh fatten with facility; on the contrary, the chemical composition of such morsels. in the majority of cases, differ but little whether the animals be fat or lean.

The animals on entering the show, are weighed; they remain six days exposed; they are weighed again on entering the slaughter house; the differences between the two weighings vary as much as 95 to 165 lbs. Evacuations cannot explain the difference; the heaviest animals represented the greatest loss in weight. If this loss were real, it must be at the expense of the fat, eliminated under the form of carbonic acid; but an animal weighing 19 or 20 cwts, does not give off during 24 hours, a quantity of carbonic acid representing 18 lbs of fat; physiology fixes that figure at 34 lbs The weighing machines then must be faulty. Of two oxen, one weighed 163 the other 171 cwts; both were of the same breed. Durham, but the second was six months older; the first yielded 66 per cent. of meat net, the second 71, the tallow being 15 and 153 per cent. respectively. The second animal was more profitable for the butcher; its choice morsels were greater; but the second ox was smaller, and its flesh rather superior. In the case of fat cows, there was a difference of 6 per cent. of water in their flesh, which means about 7 per cent. of in terstitial fat; while the prize oxen above alluded to, contained only 32 p. c. of such fat, the cows had 65-the difference not being comestible matter. The remarks apply also to sheep with equal force; a Southdown cutlet weighing 18 ounces, but only having a prime morsel of flesh of 11 oz., is more nutritive than a Dishley (1) cutlet of 32 oz. with only a mors el of 11 oz. of first class meat. In the fat of bovines, oleic acid amounts to 58, and concrete acid to 42 per cent. Also, as animals become fat the oleic acid augments. M. Regnard confirms, that the blood of these prize animals is very rich in red globules, thus indicating a large quantity of oxygen But the destruction of the nutritive combustible materials is not in a ratio to the respiratory capacity of the blood. Were it so, the high degree of fatting obtained would be impossible, with a blood so rich in oxygen. Calves become equally fat, and yet their blood is very poor in rich globules. But this anomaly does not affect the doctrines of futting-it strikes only the old doctrine of respiratory combustion.

Respecting the outery against trichinæ, and the embargo placed on American pork by the French government Mr. Bonley, the head veterinary inspector, has examined 600 cases of said pork at Havre, and has found them free from all disease. Milne Edwards repeats, that good cooking will destroy the trichinæ, and Boussingault adds, that in order to roast meat uniformly, metal skewers ought to be plunged into a joint, so as to conduct the heat into the interior.

The lambing season in France is arranged so as to take place between the last fortnight of January and the first fortnight of February; each ewe on the point of lambing is placed separately, and provided with good litter; she is aided, in case the lamb presents itself irregularly; if the mother refuses to lick the lamb, the latter ought to be dredged with salt, to induce motherly tenderness; some lambs are awkward in finding the teat, so they must be assisted, and where the mother refuses to be suckled. place her in a narrow space with the lamb, when she will soon change; if she have ro milk, place the lamb with a ewe that has lost hers, or feed it with the bottle on lukewarm milk. or milk slightly heated with water. At the age of 2 or 4 months, the lambs are weaned, and generally received a pint of oatr daily, till 5 months, then three-quarters till 8 months old, rising in pro portion. The ration of meadow hay is about 6 per cent. of the live weight of the animal. The increase in weight of

(1) i. e. Leicester. Bakewell lived at Dishley. A. R. J. F.

lambs, is from 24 to 3 oz. per day, during ten months; those intended for breeding should have moderate exercise, to develop their form and avoid obesity; after the age of a year, they must not be overfed, that would make them sterile, and affect even the fineness of the fleece; if extra-fine wool be the end in view, the young animals ought to be comfortably lodged, the litter kept very clean, and the shed warm, the rations good, and not excessive.

An egg farmer has two poultry establishments: in one the fowls are enclosed in a yard and fed on grains: each hen, during four years, lays 103 eggs annually and its keep is valued at \$1 per year. The second establishment allows the fowls to find their own food about the yards, and in a large cavalry manure pit; these hens lay 111 eggs each per annum; the birds are sold when in their fourth year. To mark their age, when 1 to 3 month's old, one toe, of the right foot is cut off; the following year, a second, and the next, a third; the fourth year tells its own tale. To preserve eggs during ten months and fresh, place them in a bath of whitewash; turning them every second or third day. The poultry shed ought to be swept once a week; fresh strew added, and the walls washed with a solution of one-twentieth of sulphurie acid and water.

The agricultural situation is satisfactory; the weather has been favorable for fields operations; grain fetches a fair price; lean cattle are in demand for fattening, and pigs are very remunerative. In same localities, the frost has affected the vines a little, and the phylloxera is not quite so destructive as heretofore; the insect is being clearly checked—preparatory, it is to be hoped, to being exterminated. The prospects of the wool campaign are bright. The extent of land under beet will be this year about the same as last, and everywhere the counsel is being given—select suitable seed, and success is one-balf assured.

Boussingault laid down, that the soil is richer in carbonic acid than the atmosphere, being poorer(1) in that acid, however, as it contains more of oxygen; Müntz & Schlosing showed, that the production of nitrates in the soil is due to fermentation. that is to the presence of animalcules; Wollny has now demonstrated, that these also produce carbonic acid.

Composition of the ash of sea-weed burned in the open air; mean of twelve analyses, by Professor Johnston:

Potash	17.40
Soda	12 70
Chloride of sodium (common salt)	16.50
Chloride of potassium	0 93
Iodide of sodium	0.95
Lime	7 39
Phosphate of lime.	7.24
Magnesia	9.89
Oxide of iron	0.24
Sulphuric acid	24.76
Silica (sand)	1.84

100.00

The above may be of interest in connection with the varech manure imported from France. by the Quebec Government, for distribution among the farmers of the province. I should like to see it tried by the side of the same value in bone-dust. It will be observed that this goëmon is about the same as the sea-weed so largely used on the coast in the West of England, in Fifeshire, Scotland, and in the Channel Islands,

(1) I think our correspondent must mean that, though the soil is the richer in carb. ac., that carb. ac. is of poorer quality ! A. R. J. F.