

ported to other countries for cattle feeding. Mulberry trees could be grafted and so produce food for silk worms, while the vine could be made to yield fruit capially suited for raisins, and hence meet the want now much felt in the manufacture of wine. Every domestic animal has degenerated in Egypt, save the ass, owing to want of adequate food, suitable care, and healthful conditions. Green fodder is much needed in the warm weather, and trench-preserved food would admirably fill the void. Ordinarily, there is not more than one head of cattle for every 30 acres, while in farming districts in other lands, one beast is estimated for 1 to 3 acres. The drawback is the taxation, which amounts to about one-fourth of the total revenue of the land: some holdings, and where the soil is of identical quality, pay four times higher taxation than the other. But this is the result of mal-administration.

M. Lodureau, director of the agronomical station at Lille, has published his annual report on experiments with beets, to show that richness in sugar and relatively large-sized roots are not incompatible. These desiderata can be obtained by cultivating the plants at close distances, securing good seed, and selecting appropriate manure, superphosphate of lime especially. These conditions fulfilled, the meteorological drawbacks can be counteracted. A question has been raised, whether the pulp, the result of extracting the juice by the now general process (in France) of *diffusion*, instead of the old practice of pressure, demands an increase of dry matter, such as hay, chaff, cut straw, etc. The pulp from the press contains but 70 or 75 per cent of water, while that from *diffusion* is as high as 88 or 90. The augmentation of hay, etc. ought then to be about 25 per cent.

M. Desprez, on his farm of Cappelle, near Lille, established a laboratory ostensibly to control the richness of the root cultivated on 250 acres, grown simply for seed; some 2,000 to 3,000 analyses can be made daily, and the beet found richest in sugar is kept for seed: from 12 to 15 per cent of sugar is what is anticipated: roots yielding less are thrown aside. Indeed it is every day becoming more and more a certainty in beet-culture, that success depends chiefly on the quality of the seed. This secured, the roots ought to be purchased proportionate to their richness.

The French government organises and subsidizes a series of regional agricultural shows annually: they are official, and so have many drawbacks, one of the chief being the constitution of the juries. The number of jurors is five, being two too many, and the jury that awards prizes to sheep does the same towards pigs and barn-door fowls. In the case of black cattle, matters are still worse: the same jury accords prizes to several different races of stock. It is proposed to nominate jurors with a special knowledge of each class of animals exhibited. It would be well to exercise greater severity towards exhibitors who merely purchase stock to fatten and carry off a blue ribbon.

Normandy is the region for cider; it is questionable if the reputation of that beverage is, to-day, what it was. There is first of all, less care displayed in the manufacture of cider: it is left in the hands of irresponsible servants, who employ the nearest water at hand, that in stagnant pools, and even that where soiled linen has been washed. Next, there is no judicious selection in the trees to be planted; every kind that grafts readily is accepted: the proprietor rarely superintends the planting of his orchard. The best cider producers are those who have a special nursery for their fruit trees, and personally look after everything. It is asserted that the natural cider has so much degenerated, that numerous persons prefer that prepared in Paris by processes wherein not a single apple enters. The same observation can also be applied to wines.

M. Lemoine has conducted a curious experiment to determine the ratio between the food consumed by barn-door fow

and the quantity of manure produced. He enclosed a cock and six hens of the Dorking breed. A hen, it appears, consumes annually 374 lbs. of food, of which it excretes, 272 lbs.; the remaining 102 lbs. representing that serving for the sustenance of the body. The value of the manure was only 1 franc.

Agriculture has now its exclusive minister, having been separated from the department of commerce. Great things are expected from the change, and may be realized if the parliament will vote the necessary funds, and the new minister show himself to be equal to the occasion. It is not agriculture that will ever ruin the finances of a state.

A school for training shepherds has been established in Algeria, where the pupils are instructed in all that affects the breeding and rearing of sheep, as well as their diseases and their treatment. Several notions are also taught of gardening and forestry, as well as of the elementary principles of general education.

The phylloxera continues its ravages, and some vineyard proprietors flatter themselves to have conquered the foe. The government is certainly not niggardly in its grants to experiment on all agents reputed efficacious to destroy the scourge. A very complete history of the plague has appeared, replete with illustrations of the insect in all its stages: its mode of propagation, of attack, and of its ravages: healthy and diseased vines are so grouped that it is impossible even for a child not to take in the history of the calamity. The volume speaks to the eye, and must be invaluable wherever a vineyard exists, or natural history is taught.

The Tax on Tobacco.

From certain articles published lately in the newspapers, we gather that a good deal of discontent is felt in some parts of the province in regard to the duty on tobacco grown for sale. We are the more surprised at this discontent, knowing that, in several counties, the cultivation of tobacco has considerably increased since the amount of the tax has been diminished. In the districts of which we speak, the number of acres in tobacco increases yearly, and it is proposed to form companies for the manufacture, solely, of Canadian tobacco; a proposition which, looking to the large profits to be derived from the manufacture, and the economy of giving up the use of all foreign tobaccos, cannot but commend itself to the minds of all well wishers to their country.

"But," we shall be told, "before we can get rid of the necessity for importing foreign tobacco, we must make sure that we can grow as good in our own country." Can we? I think so, and the way to do it is, to offer valuable prizes at our provincial exhibitions for tobacco equal in quality to the best now imported.

Let us see, when once we have arrived at this point, how large a profit our manufacturers will make in dealing only with Canadian tobacco. For this purpose, let us consider the following extracts from the list of importations of the fiscal year, 1880:

Tobacco imported, 1880 (unmanufactured), 9,528,905 lbs.

Value of the above; \$805,096.

Duty on the manufacture of the above, at 20 cts. a pound, \$1,903,781.

Thus, if we could grow as good tobacco as the imported, we should keep in the country the \$805,096 which we now send abroad. Now, what difference would there be in the amount of the duty payable by our manufacturers under these circumstances? He who would pay 20 cts. a pound for the working up of foreign tobacco, would only have to pay 14 cts. if he dealt exclusively in Canadian tobacco. Thus, supposing the same 9,528,905 lbs. were in question, the duty would be only \$1,334,046.70; a difference in favor of the manufacturer of \$571,734.30.