

Agricultural.

Agriculture in France.

Paris, September 4, 1875.

Although harvesting operations are nearly terminated in all France, yet the exact result cannot be stated with accuracy till threshing operations are completed. General opinion believes the yield will be a mean average of about 28 million quarters for wheat. In exceptional years, double this quantity is produced. Some 24 million quarters are required for home consumption, and four for sowing; thus no wheat can be exported of this season's crop, but such can take place from reserved stocks, which are large.

The importance of the vine-bug, or phylloxera question, to France, may be estimated by the fact that the insect, which covers the roots like a bark, has already destroyed nearly half a million acres of vineyard, and threatens with ruin two millions of acres more. For three years a Government Commission has been occupied at Montpellier experimenting with all suggested remedies, on an affected vineyard several acres in extent. It may be safely said the Commission, composed of practical and scientific men, has discovered no cure; it has, however, demonstrated the happy action of manures in prolonging the life of the vine, without preserving it. The submersion of the vines, for thirty days at least, in autumn or winter, with running water, and the subsequent application of fertilizers—known as the Faucon plan—is the sole efficacious remedy up to the present demonstrated, and so highly is it appreciated, that a project is on foot to construct a canal, to be fed from the Rhone, so as to enable several million acres of vineyards to be temporarily inundated. A special commissioner has left for the United States to study a variety of American vine-stocks known in Pennsylvania as the "corn-grape," and reported capable of resisting the phylloxera.

It is becoming the custom in France to present the farmer who offers his wheat to be cut by a competition of reaping machines, with the prize reaper—the latter being purchased for that purpose by the local farming society. Not less noteworthy is the progress made in the adoption of threshing machines. For large farms, steam machines, of course, are employed; but in the case of small holdings, the little Swiss machine is preferred. It is portable, and so passes from neighbor to neighbor. If worked by a horse, ten bushels of grain per hour may be threshed; if turned by two men, one-half that quantity.

A fresh impulse has been given to hay farming by the employment of machines for compressing the fodder. A cubic yard of hay, ordinarily bundled, weighs about one cwt.; by pressure, and well corded and wired, five and six times that quantity can be forced into the same space. It is thus that Cherbourg sends hay to Paris, and the same facilities prevent a region from suffering from any penury of fodder. The presses are of various sizes, the portable ones being hired out.

Reports of late have been very unfavorable to the giant maize of Nicaragua, so much esteemed for green feeding. On examination it has been found that the seed had not been imported from South America, but raised in the vicinity of Marseilles. The seed germinated very unequally and sickly, and was found to be black in the centre and suffering from a dry rot. Apart from any question of degeneracy, the climate of France cannot ripen this maize, and hence our farmers are falling back on the variety known as "horse tooth." M. Goffart, who has become the authority on the preservation of green maize and rye in trenches, for winter and spring feeding, asserts that the plan has never failed where the instructions have been minutely followed. The amount of moisture contained in the plant is no obstacle to its preservation, as maize contains 80 per cent. of water when put in the trench, and revealed on analysis the same per centage four months later, when taken out to be consumed. M. Goffart thinks that the reason why so many complain of green rye not conserving well is owing to its being relatively dry, containing but seventy per cent. of water, and hence one reason, perhaps, why a watering with salt in solution proves so beneficial. The colder the state in which green stuff is put into the trenches the better; thus after filling some pits in December, M. Goffart found that such as had a layer of ice on the surface before being covered in, maintained the desired low temperature to the last.

Belgium is very much occupied with the means to increase the breed of horses, to supply the deficiency caused by foreign purchases. The favorite plan is to award annual prizes to the best stallions, aged from four to nine years, and which shall have covered thirty mares at least, in the locality. France, in addition, gives prizes for the best brood mares, but which must not be exported. Belgium, being very rich, can afford to pay good prices. There the rent per acre of land is 90 francs, and for its purchase, 4,000 francs. The land is fertile, excepting the heath district of Campine, and 15 quarts of milk is the expected yield of a Dutch cow. When the quality as well as the quantity diminishes, the animal is at once fattened for the butcher. It is by means of beet pulp that Belgian farmers are able to fatten so much stock.

To destroy the terrible bug worms which attack the young hop stems, M. Breithaupt pours some carbolic acid on a heated shovel; the fumes cause the worms to fall dead in masses.

Canadian poplar seems to be prescribed for roadside planting. Instead, ordinary poplar is recommended for humid soils, elm for strong clays, and oak for land unsuitable to any other tree; the distance between each tree to be 33 feet.

It is alleged that one of the obstacles to the rearing of horses in France is the absence of oats. In the southern parts of the country barley is the favorite grain for horses, as is practiced at present in Spain, Algeria, Arabia, &c. The Romans fed their cavalry horses only on barley. A new variety of oats, called Salines, has been introduced in the neighborhood of Lille, which yields over 80 bushels per acre, where formerly half that quantity was produced; hence the cultivation of this grain crop is now rapidly spreading. Oats sell at 11 to 14 francs per cwt.—*Abstracted from Correspondence of the New England Farmer.*

Large or Small Farms.

There is no mistake more common or more injurious than that of supposing the more land a man holds the greater must be his profits, for profits do not arise from the land itself, but from the manner of using it. The best soil may be made unproductive by bad management, and the worst may be rendered more profitable by the opposite course; but without sufficient capital no land can be properly cultivated. At the same time, there is nothing to which capital can be applied with greater certainty of a fair return for a liberal expenditure when correctly employed, than in land. In fact, assuming that the expenditure be directed with judgment, it will be found that the profits upon the outlay increase in more than a proportionate degree to its amount; thus, supposing that twenty-five dollars be the lowest and fifty the highest sum that can be employed in the common culture of the same acre of land, it is more than probable that if twenty-five dollars would return at the rate of ten per cent., the fifty dollars would yield twenty per cent., or an intermediate sum in the same ratio. Admitting this to be true, and no experienced agriculturist will doubt it, it follows that a capital of five thousand dollars expended in the cultivation of two hundred acres, will only yield a profit of five hundred, while if it were applied to one hundred acres, it would produce one thousand dollars; therefore it is evident that this profit would be increased by diminishing the quantity of his land.

Many a man has been ruined by a large farm, who might have acquired a competency on one with half the number of acres. Most farmers are anxious for large plantations, and many are thus betrayed into the error of attempting to work a greater quantity of ground than they have the means of managing to advantage—some in the delusive hope of acquiring these means by future savings, others from the vanity of holding more land than their neighbors; hence arises a deficiency of stock, imperfect tillage and scanty crops, with all the train of rent in arrear, wages ill-paid, and debts unsatisfied, and final ruin.

He who prudently commences with only such a number of acres as he has power of cultivating with proper effect, is certain of raising the full return from the soil; and his engagements being in accordance with his means, he enjoys present ease of mind, and lays the surest foundation for future prosperity. It therefore behooves a man to weigh well the charges with his means, and never allow himself to be seduced by any ideal prospect of gain into the imprudence of entering upon a larger farm than his capital will enable him to manage with the spirit necessary to insure success. Truly did Judge Buel say that "large farms are the curse of

our country," and perhaps no one had better experience from which to draw such an expression. If a farmer has one hundred acres, it would be much better for him to put the price of another hundred on it than to buy one hundred more, and make the same labor produce double the crops, and not have double labor for double crops, as is usually the case with us.—*Germantown Telegraph.*

A Model Farmer.

Originally Mr. Johnston's farm was a strong and heavy clay, and previous to his ownership it was, in the language of the neighbors, "run down," and, as a former owner of the part told him, the "cream had all been taken out of it," receiving for a reply—"I will make butter from it yet." An old barn, standing amid the accumulated manure of many years, told the story of its management. Though the land was by no means springy—in fact I believe there was but one permanent spring on the place, and that was away from the lake shore—yet it was full of water that could not find its way through the tenacious clay. Mr. Johnston became the owner of this land when he was by no means a rich man. He purchased in pieces, as his means and credit permitted, until he had 300 acres (since reduced to about 100). He now tells the story of certain careful bankers lending him money without security, on his note for eighteen months to drain this land. He does not yet see how they dared to trust him for such large sums to invest in what was considered by most of his neighbors as a wild scheme of "burying crockery" in his land, as they deridingly talked when they passed by, wagging their wise heads. "But, Mr. Johnston, did you pay that large note by the time it became due?" "Long before," was the prompt reply. The two crops of wheat that came in during the time, by their increased yield wiped the debt all out, and gave him and some others confidence in his policy—which may be summed up by saying that he first took the stagnant water from his land, and then made all the barn-yard manure he could by feeding sheep and cattle during the winter, and turning into the ground great crops of clover and grass, when he plowed his pastures and meadows, to raise wheat. The immense work he performed will be best comprehended when it is stated that he laid about forty-five miles of tile drains—and this, too, on what is called uplands, not, as has been said, made wet by springs, but by the water that fell upon it from the clouds—and he is recognized as the very father of the now so generally practised system of upland draining in this country.

The prejudices he encountered may be understood when we are informed that to do the work thoroughly on one of his fields it was necessary, for an outlet, to make a drain through a field belonging to a neighbor, and that he could not obtain consent from the owner to do so. "Why," said he, "if you should cut a ditch through my field two or three feet deep, you would take all the moisture out of it and ruin it." He had to purchase this field, which he was only able to do after long negotiation. Once in his possession, the whole field was speedily cut into strips two rods wide, bounded by tile drains. The immense crops that followed astonished the former owner, so that he might be seen very early of a morning, when he thought he was unobserved, looking over the new line fence upon the once wet, soggy land, that would give him very little but aquatic plants and nearly worthless grasses. How our venerable friend loves to tell this story.

He had a field of forty acres that was seeded to clover, and most of it (all but three or four acres in one corner) had been drained, which he wished to put into wheat, and he did not wish to plow it until the clover had become fully grown. To this end, he purchased, in the early spring, three pairs of strong oxen, intending to put on each plow a span of horses and a yoke of oxen, a boy to drive and a man to hold the plow. Acquaintances, as they passed along the road, began to ask why he did not plow his summer fallow; but he bided his time, pasturing ten sheep to the acre after the clover had become well grown, and until quite late in June. Then, with his three span of horses and his men, he went to the field, sending in another direction for the oxen. For some reason there was delay in bringing the oxen, and having nothing else on hand, he started a team of horses before one of the plows, and was surprised to find that two horses on a plow were enough, and no oxen wanted. So when the oxen came, the boys were told to drive them back, and let them get fat to be sold for beef.—*E.*