AGRICULTURE IN FRENCH NORTH AFRICA

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THE countries comprising French North Africa are respectively Morocco, Algeria, and Tunisia. Morocco is a Protectorate of France and is governed by a Sultan. The Resident Commissioner represents the French Government. Tunisia is also a French Protectorate ruled over by the Bey of Tunis. The French act in an advisory capacity in both cases but are in reality the rulers. Algeria is, however, wholly under French administration and is incorporated now as a French Department under the direction of a Governor-General whose headquarters are in Algiers itself. The area of Morocco is 200,000 sq. miles, that of Algeria 847,500 sq. miles, and Tunisia 480,000 sq. miles, each with a population of five millions, six and a half millions (of which about a million are Europeans) and two and a half millions, respectively. The majority of these populations are Arabs or Moors. The coast line on the extreme west of Morocco up to Tangier which faces the straits of Gibraltar is bounded by the Atlantic Ocean. Thence Morocco, Algeria, and Tunisia border the Mediterranean. Morocco is the Arabic Maghreb al Aksa—the most westerly land of the setting sun. The Atlas Mountains in Morocco run in a north-east direction and some peaks are 15,000 ft. in height and capped with snow. Behind this range and to the south of all three countries lies the great desert of the Sahara extending over 3,500,000 sq. miles—a veritable sea of sand.

The rainfall varies from about 29·30 inches to over 36 inches. The latter figure ensures good crops. Periodical rains brought by the west and south-west winds fall from October to April. Rain falls on 70 to 80 days during the year but only a small proportion of these are entirely wet days and a considerable amount of the rain falls during the night.

The mountainous massifs in Morocco gullied by their rushing waters have little or no mould, while plains and valleys are on the contrary plentifully supplied with such. Black and heavy earth extends in more or less large patches, and though in some cases these lands are not sufficiently calcareous they are excellent for growing cereals being rich in potash and yield abundantly.

In contrast with Algeria and Tunisia, Morocco is irrigated by many rivers and streams and there is not the same lack of

water as obtains in many parts of the latter. Many of the rivers are fed by the snows of the Atlas Mountains.

In Western Morocco alone there are 200,000 acres under barley, 1,500,000 acres under wheat, 500,000 acres under maize and sorghum or millet, and 6,000 acres under oats. Viniculture has an area of 1,300 acres. Potato crops and beetroot do well. In addition large areas of waste land have been sown with castor plants which are self-producing and provide both lubricants for aeroplane engines and oil cake for manure. Castor is also grown in Algeria and Tunisia. Market gardening on the outskirts of towns is carried on very satisfactorily. Flax is grown on over 10,000 acres and beans and lentils occupy 98,000 acres and 23,000 acres, respectively. In some parts of Morocco cotton has been grown successfully. Chick peas are also grown in all three countries and form part of the ingredient to make a really good "*Kous Kous*"—the national dish. Rice is not grown nor are the inhabitants of Morocco, Algeria and Tunisia rice eaters. *Kous Kous* is prepared from very fine semolina or rulang—the heart of the wheat—with either mutton or fowl in much the same manner as a *Pillau* or *Buriani* and when well cooked is very delicious. Fenugreek, a leguminous plant, is also grown in all three countries. This is a condiment for human use and also a fattening substance for animals.

As regards fruit growing, nearly every kind of fruit grown in Central and Southern Europe do well such as the olive tree, orange and lemon, almond, walnut, apricot, pear, apple and pomegranate. Date palms grow in the oasis of Marrakesh at the foot of the Atlas, but the dates are of rather poor quality. Esparto grass or Alfa grows on the High Plateaux of Morocco, Algeria, and Tunisia and millions of acres are covered with this fibre. It is of course chiefly used in the manufacture of paper, England alone until recently taking 60 per cent. of the total export. Since wood pulp is now being largely used for paper making the demand for Alfa has fallen off. As far as cattle breeding is concerned Morocco appears particularly suitable. The Gharh and Zaian are specially well placed as far as horned cattle are concerned. The breed is characterized by small bones, a fine head and extremities and a certain fulness of the chest. Judicious selection would seem sufficent to transform it into a thoroughly good breed as regards meat. Experiments, I believe, are being tried by cross breeding with Durhams or Limousins which it is reckoned should have the effect of greatly improving the weight of carcases.

The pasture lands on the plateaux are well suited for cattle, sheep, goats, and camels. Horses, donkeys, and mules are to be found everywhere. There appeared to be, however, an absence of dairy farming and dairy cattle, although practically

everywhere in Morocco, Algeria, and Tunisia good milk is usually available. This may possibly be due to the universal use of olive oil for culinary purposes as is found in practically all southern countries of Europe. Pigs thrive exceedingly well in the lower lands and the export trade in this line has yielded good profits. Poultry too does very well and the trade in eggs for export to France in addition to local consumption has been organized for some time past. Indigenous apiculture is successfully carried on by the Arabs. The forests which are distant from one another are scarcely noticeable when travelling and yet form a very important feature in the economy of the country. Cork trees alone cover an area of 870,000 acres in the districts of Zemmur and Marmora. The forest of Marmora alone covers 330,000 acres and is itself equal to double the wooded areas of Tunis and to half the Algerian State forests. There are also some very fine forests of cedar in the middle Atlas, covering no less than 750,000 acres.

The export of cork from North Africa is a very important and profitable business. The cork oak when it has reached the age of fifteen years is stripped of its bark and this operation is repeated every ten years thereafter. After the age of thirty-five or forty years, it is reckoned that a single cork tree when stripped will yield several hundred pounds weight of cork.

The date tree of which there are hundreds of varieties requires great solar heat and can only be cultivated to perfection in or near the Sahara desert. There is an Arab saying that in order that a date tree should flourish it must have its head in fire and its feet in water. Biskra, a large and important oasis on the edge of the Sahara is one of the principal centres of date cultivation. The dates are large and honey-sweet like those of Egypt and great quantities are exported to many countries. Date gardens in fact bear a close resemblance to coconut estates. The larger properties are owned by wealthy Arabs and French Colonists. The trees flower in March and the fruit is ripe in October. The trees are usually between 30 ft. and 40 ft. in height and come into full bearing in twenty-seven years and flourish for about a century. It is a delightful experience to visit and wander round one of these large date gardens as I was fourtunate enough to do with the owner—a rich Arab Sheikh. Cultivation is assiduously carried out and every care given to the trees. The date palm, like the coconut, provides when cut down fuel and fencing and material for building purposes. The leaves are made into cord, sacks, mats, and baskets.

To reach Biskra from Algiers it takes either a whole night or a day by train or one can motor on the magnificent roads to be found practically everywhere in North Africa constructed

by the French. After passing between high mountains on either side one reaches the gorge of El Kantara. After passing through this the desert opens out before one with vivid suddenness. At the oasis of Tolga, sixty miles distant from Biskra, one cannot help but marvel at the work done by the French who have in many places installed a system of artesian wells. Around the oasis the desert stretches before one like a veritable ocean. In the distance are the rugged and stony peaks of the Aures Mountains rose tinted. At a central point in the oasis, water gushes forth copiously and is led by a system of channels made by the inhabitants to wherever it is needed to irrigate date palms and vegetable and fruit gardens.

The people look well fed and happy. It is strange to think that this fertile soil once part of the desert should have sprung into life and fertility by the magic touch of water. Reza Shah of Iran never spoke more truly than when he said : " Life depends on water." It is interesting to note also as regards trees that the rubber tree which was imported from Ceylon in 1863 has become quite acclimatized in Algeria in those parts where a moister and more humid climate prevails.

In Algeria there are three natural divisions : The Tell, the High Plateaux, and the Sahara. The Tell is a narrow strip of cultivated land hundreds of miles in length and from 30 to 100 miles in breadth between the sea and the mountains. The Tell is well watered by rivers and is in extent about 35 million acres. Passing through this country one sees the farms and vineyards of French colonists and also of Arabs. The French employ modern methods of cultivation using steel ploughs and tractors but the Arab for the most part is content to keep to the usage of his forefathers. The plough is of much the same pattern as that in India or Ceylon and is too superficial. Oxen and sometimes camels are used and I have seen myself in the case of a small Arab holder his women folk also employed and yoked to a plough. They do not clear their land sufficiently of weeds and employ but little manure which, however, is balanced by the natural fertility of the soil.

While in England the average production of wheat is from 22 to 27 bushels per acre, in Algeria it seldom exceeds 8 bushels. Every variety of temperate zone vegetables and fruit are grown abundantly and potatoes and onions yield two crops annually.

Roses, jasmine, carnations and other flowers of a temperate climate do exceedingly well in Morocco, Algeria, and Tunisia. Roses especially which require a dry climate are very fine. The Arabs use many of these flowers for the distillation of attar and perfumes. Besides flowers many herbs, such as coriander, cummin, carroway and henna, are cultivated by the Arabs.

Experiments with sugar cane and other tropical plants which require a continuously damp climate have not been very successful.

In all three countries fruit trees flourish—plums, apricots, cherries, pears, melons, bananas and strawberries. Figs thrive everywhere and are a common article of food. The finest tangerines, oranges and lemons are as delicious as they are plentiful and cheap and are exported in large quantities to France and England. In Algeria and Tunisia more attention is given to viniculture than in Morocco. In Algeria alone over 300,000 acres are planted with vines and over 40,000 acres in Tunisia. This industry is in the hands of French Colonists who, of course, thoroughly understand it. I have tasted some very fine wine, red and white in Algeria and Tunisia, practically as good as French wines. Indeed, I was told that large quantities of wine are shipped to France and sold there as French wine. The best brand of Algerian vine is known as Kebir and in Tunis the best wine is Carthage Royal. M. Dejeron who was sent by the French Government to examine the prospects of viniculture in Algeria in his report states :—" In my view the vine is a providential plant for Algeria ; it prospers everywhere, in the worst land, and on the most burning soil. In the three provinces I have not found a spot which is unfit for it ; everywhere, but especially on the littoral, I have tasted wine rich in alcohol. The vine will become the fortune of the country. Algeria possesses in its geological structure, in the rays of its sun, in the currents of its air those precious qualities which give to the product of the vine their tone, their colour, their delicacy and limpidity. It can produce an infinite variety of wines suited to every constitution and to every caprice of taste."

In some of the oasis cotton of fine long staple is grown very successfully.

Cows in Algeria and Tunisia are small and give but little milk. As a result of the Arab system of feeding calves on grass a fortnight or so after birth and withdrawing milk from their food as soon as it can be done the resulting veal is tough, has no flavour and is of inferior quality. Algeria and Morocco are the original homes of the Merino sheep. The flocks of sheep bred on the High Plateaux are a great source of wealth, many thousands being sent to Paris monthly during the summer. Besides which there is a very large export of this fine and valuable wool. The Arabs, too, use it largely to hand weave their burnouses and other garments. They also employ camel's wool for this purpose, and a burnous made of pure camel's wool is impervious to rain. Goats are very numerous and supply the Arabs with milk. Horses too are bred and are excellent; but except at the military studs it is difficult to meet with the

pure-bred original Arab steed. Practically all Arabs are magnificent natural horsemen and some splendid cavalry regiments—Spahis—have been recruited from among them. The Arab also makes a sturdy and hardy foot soldier and these comprise the infantry regiments of Tirailleurs. The majority of such units both cavalry and infantry are drawn as in India from the Arab peasantry, and are officered by the French and Arab chiefs.

To the Arab of the desert the camel is of course a most valuable animal and is considered superior to that of Asia. Quite good cheese is made from camel's milk. When the animals are old they are fattened for killing, the flesh being considered by the Arabs as very wholesome.

In both Algeria and Tunisia I noticed on many French farms and vegetable gardens the large extent to which aermotors are used in pumping water from wells for irrigation.

On the road to Korbous where there are large mineral hot springs dating from pre-Phoenician times and an important thermal establishment and hotel, I passed a huge acreage of land belonging to Messrs. Felix Potin of Paris—the French Crosse & Blackwell—where every kind of European vegetable was growing and large fruit orchards were cultivated. The land is entirely irrigated by aermotors pumping water from wells. These vegetables and fruits are exported to France in large quantities either in their natural state or canned and exported. It is in fact a huge and most profitable undertaking and says much for French initiative and enterprise.

Algeria and Tunisia are both rich in mineral springs and there are many thermal establishments for the cure of various diseases. All such places have hotels and an attendant staff of medical men. There are also in every case smaller and less luxurious places which are open to the poor and indigent. The Arabs have great faith in the efficacy of these waters.

South of Tunis are large deposits of phosphates and these are shipped from Tunis to all parts of the world.

There is no doubt that the three countries of Morocco, Algeria, and Tunisia form a very valuable possession for France, with their exports and imports. En route to Biskra it is worth while breaking journey at Batna and to motor out thence—about twenty-five miles—to Lambessa and Timgad, the remains of ancient Roman Cities. Lambessa was the military town whereas Timgad was the centre of commerce. The ruins are still in a wonderful state of preservation. The arch of Septimus Severus and that of the Emperor Trajan are alone worth seeing. In the neighbourhood of Timgad are the famous vineyards of St. Eugene. It is curious to consider that once this vast countryside formed one of the principal granaries of ancient Rome. The soil still remains fertile where the desert has not encroached.