

supervision, and to numerous stringent regulations concerning details as to the prohibition to sow any other seed than that furnished to him by the administration, the mode of planting, &c.; and, in addition to the surveillance as to these matters, two official inventories are taken of the growing crop—the first to ascertain the extent of land under cultivation and the number of plants, the second to determine the number of leaves for which the planter will be held accountable. When the tobacco has been gathered in a manner described by regulations of minute detail, the planter takes it to the magazine of the Régie, where it is subjected to the inspection of a commission of five disinterested experts, who separate the leaves into three portions, according to quality; the planter is then paid for each portion in accordance with the tariff of prices promulgated by the Minister of Finance. Foreign tobacco is obtained through contract with private parties, after published proposals by the Minister of Finance through the French Consular Corps abroad, and through a special government agency established at Havana. At present a little over one-third of the tobacco purchased by the Régie is of French growth; over one-half consists of foreign leaf, mostly obtained from the United States, and the remainder is made up by importations of cigars from Havana and Manilla, and by cigarettes and miscellaneous productions of various countries, and by custom-house seizures. The magazines distributed throughout the country are of two sorts, “magasins de transit” for foreign tobacco, and “magasins de culture” for indigenous tobacco. In the “magasins de transit” the foreign leaves have not to

submit to any other manipulation than the sampling of packages, after which they are forwarded to the factories in such quantities as may be demanded. With the indigenous tobacco the course is different; this when received from the hands of the French grower is usually very imperfectly dried, and has to be subjected to a curing process. After the bundles are thoroughly thrashed, they are put in heaps according to maturity, and fermented in a temperature as high as 30° to 40° Centigrade. This maturation lasts from six to nine months, depending upon the locality, and the condition of the leaves as received, and is interrupted from time to time by the operation of shaking and turning in order to prevent too great fermentation. When this fermentation is concluded, those leaves containing less than twenty per cent. of water are ready to be packed. At this point certain of the leaves undergo a stemming process; they are then packed by hydraulic pressure in bales and hogsheads weighing from 400 to 500 *kilo.* each, and in this state they remain stored in the magazine for some months to acquire further ripeness. It is usually 15-18 months after they are gathered that the leaves are considered to be in a fit condition to be sent to the manufactory. Upon arrival at the manufactory, the packages are sorted and emptied; the leaves are spread out in large bins or receive a preparatory wetting with water containing 10 per cent. of sea salt, in order to produce flexibility and prevent powdering. This process occupies 24 hours. Then follows the sorting according to quality, and the distribution to the various workrooms for composition.

When intended for the manufacture of snuff, the leaves

are put into machines and chopped into strips of the width of a finger; they are then moistened with pure water or tobacco juice of various strengths, the necessary quantity and quality of which is determined by chemical analysis. These strips are then piled up in masses containing from 35,000 to 40,000 kilogrammes, in rooms where a high and even temperature is maintained by steam-pipes and ventilators. Here they remain to ferment during a month or six weeks, when they are dried, ground into powder, and sifted. This powder then receives a wetting, is packed in stout wooden bins, in quantities ranging from 25,000 to 30,000 *kilo.*, and so remain to ferment for several months. During the course of the final fermentation, the powder is tested and moved from one bin to another from time to time, in order to ensure a successful issue of the process. When the samples taken from the bins indicate maturity, the snuff is packed in barrels and casks, and is ready for the market. For the manufacture of smoking-tobacco, the leaves, after the stemming process, receive their first moistening, which lasts 24 hours. They are then neatly arranged, with their edges parallel, and are taken to the chopping machines; the machines in use at the Régie are capable of chopping 220 lb. per hour, the knives being renewed twice during that time. The tobacco, on leaving the choppers, contains about 25 per cent. of humidity, and is immediately conveyed into one end of a revolving drying cylinder, heated to a uniform temperature of 203° Fahrenheit, from the opposite end of which it issues, at the expiration of fifteen minutes, in a dried state and freed from albumen. It is then put through a second cylinder, similar in construction to the last, but which

subjects the tobacco to a strong draught of cold air to eliminate all dust and heat. The tobacco is then packed in well-aired bins, where it remains from four to six weeks, after which it is carefully overhauled by hand to remove the pieces of stems and foreign matter that may have escaped notice in the previous operations. It is then put up in packages, varying in weight from 40 grammes upwards. These packages are surrounded with a paper band, upon which are printed the Government tax stamp, the date of manufacture, the weight, the price, and the letter "H," followed by figures. The last mark signifies the amount of humidity contained in the tobacco at the time it was put into the packets. Consul Scidmore says that in no instance since its inauguration has there been a year without enormous profits to the tobacco monopoly in France, and in a table appended to his report, it appears that from the date of its foundation (1811) to the end of 1878, the net total gain to the French Government amounted to 287,703,881*l*.

The following table from a recent report shows that the consumption of tobacco in France has been steadily increasing:—

Year.	Population.	Amount consumed.	Amount per Head.
		Kilogrammes.	Grammes.
1815	29,250,000	8,981,403	307
1826	31,673,853	11,595,084	366
1831	32,731,256	11,071,088	338
1841	34,018,715	16,461,934	484
1851	35,546,919	19,718,089	555
1864	37,133,424	28,019,803	755
1866	37,807,203	30,627,663	810
1872	35,844,414	27,031,000	754
1876	36,643,087	31,188,846	851

The amount consumed in the different departments varies very much. Snuff-taking is most practised in Oise, Seine Inférieure, Eure, and Eure-et-Loir, at the maximum rate of 375 *gram.* per head; and least in the departments of Doubs, Pyrénées Orientales, Nord, Haut Rhin, and Haute Savoie, where the average is but 100 *gram.* In smoking, however, there is rather a reverse order of things, the Nord, Haut-Rhin, and Pas de Calais consuming at the rate of 2 *kilo.* per head, while the minimum is found in Haute Savoie, Cantal, Corrèze, Creuse, Aveyron, Dordogne, Lot, and Lozère. Ten departments only consume tobacco above the average, while 70 are actually below it. If all France smoked the same quantity as do the people of Nord, Haut-Rhin, and Pas de Calais, the consumption for the whole country would be 73,286,174 *kilo.* instead of 31,000,000; and *vice versâ* it would be only 6,265,968 *kilo.* if calculated according to the average of Lozère, which is only at the rate of 171 *gram.* per head.

The department of the Nord, in 1884, had 449 *hectares* (of 2.47 acres) under tobacco, the yield of which was 1,168,206 *kilo.*

Germany.—The total area of land engaged in growing tobacco in Germany in 1878 was about 44,520 acres; nearly two-thirds of this total was distributed among Rhenish Bavaria, Baden, S. Hesse, and Alsace-Lorraine. The total consumption of tobacco in the German empire in that year was 2,196,000 cwt. The home production was 596,776 cwt., the remainder being imported.

The aggregate area of land cultivated with tobacco in the States of the German Customs Union did not vary

considerably during ten years, being 21,509 *hectares* in 1863, and 20,918 in 1872, to which must be added the newly annexed provinces of Alsace and Lorraine, which bring up the total to 24,745 *hectares*. It appears that, with particular regard to the year 1872, the cultivation was carried on in 4067 different localities, by 94,916 taxable growers, and by 83,675 smaller growers, whose production, owing to its limited extent, was exempt from taxation. By far the larger number were small growers, the area cultivated by each not exceeding an average of 10 *ares*. In Prussia the aggregate of land cultivated during the year 1871 amounted to 5925 *hectares*, or 26 per cent. of the entire territory of the kingdom; the aggregate yield of the harvest in the same year was 198,890 *centners*. It appears that the extent of tobacco-growing land has, during the last fifty years, been gradually diminishing in Prussia, and that accordingly the expectations entertained in the beginning of that period of a great future development of this branch of agriculture have not been realized. The reasons for the gradual decline are considered to be, on the one hand, the growing competition of the South German growers, and the increase in the importations of American tobacco; on the other hand, the fact that the cultivation of beetroot for sugar, and of potatoes for distilling purposes, has proved to be a more profitable business than tobacco production. It has, moreover, been found by many years' experience, that whilst the quality of the tobacco cultivated in most parts of Prussia is not such as to enable the growers to compete successfully with the importers of foreign, particularly North American sorts, the labour

attending its cultivation and its preparation for the market, as well as the uncertainty of only an average crop, are out of proportion, as a rule, to the average profits arising therefrom. The cultivation of the plant has consequently gradually become restricted chiefly to those districts of the country where either the soil is peculiarly adapted for the purpose, or where it is carried on for the private use of the producer.

In Bavaria, as is well known, tobacco is cultivated very extensively, particularly in the Palatinate and in Franconia, viz. the districts around Nuremberg and Erlangen. The area of land in 1871 was 4721 *hectares*, which produced 144,153 *centners*. In Saxony but little tobacco is grown, the total area planted therewith in 1871 not having exceeded 6 *hectares*, upon which 130 *centners* were produced. Although in parts of Wirtemberg the soil and climate are said to be very favourable to the growth of the plant, the area of land cultivated is, upon the whole, a very limited one, and did not exceed 178 *hectares*. The yield of the harvest is given at 5571 *centners*. In the year 1858 the extent of production in Wirtemberg is stated to have been four times as great as it is at present. The Grand Duchy of Baden has at all times been the chief tobacco-growing part of Germany, and as far back as the end of the seventeenth century special laws for regulating the cultivation, preparation, and warehousing of this article were in force. The great importance accordingly attaching to this branch of agriculture and industry for so large a proportion of the inhabitants of Baden, renders it but natural that any project of increasing the tobacco tax should meet with

very strong opposition amongst most classes of the Grand Duchy. The most prominent tobacco-growing districts of Baden are those of Carlsruhe, Mannheim, Heidelberg, Badenburg, Schwitzingen, and Lahr; the quality of the plant grown in these parts being a very inferior one. The produce of the districts mentioned is therefore applied chiefly to the manufacture of "cigar-wrappers," and is exported in considerable quantities to Bremen, Hamburg, Switzerland, Holland, and even to America, for the use of the cigar-makers. The prices of the best kinds of Baden tobacco are consequently also, on an average, much higher than those realized by other German growers. The area in Hesse was 979 *hectares*, the chief district being around the town of Darmstadt; the production was 31,311 *centners*. The most prominent amongst the Thuringian States as regards tobacco production, is the Duchy of Saxe-Menningen; the land cultivated in 1871 in all of them put together was 202 *hectares*, the yield of the harvest in that year having been 4806 *centners*. In the two German states of Mecklenburg, 6106 *centners* were raised from 165 *hectares* of land. The most important district is that of Neu-Brandenburg, in Mecklenburgh-Strelitz. Only a small extent of land, viz. 69 *hectares*, is used for tobacco in the Duchy of Brunswick, the same being situated near the town of Helmstadt; the amount raised was 2391 *centners*.

In the recently acquired provinces of Alsace-Lorraine, tobacco cultivation has been extensively carried on for many years, more especially in the country around Strassburg, Mülhausen, Schirmeck, and Münster, and to a

smaller extent near Metz and Thionville. The aggregate area of land cultivated in 1871 in both provinces is given at 3159 *hectares*, upon which 115,518 *centners* of tobacco were raised. According to the statistics and information furnished by Consul Ward, the quantity of tobacco produced in Germany in the year 1871 amounted to 713,845 *centners*, the whole being estimated in value at 60,284,210 dols., or about 9,042,613*l.* sterling.

A Consular report of March 31, 1885, remarks that one of the most prominent branches of agriculture in Baden is that of tobacco, of which about 300,000 to 350,000 cwt. annually are grown, whereof large quantities are exported. Owing to the comparatively high tax on production of 22½ marks per 50 *kilo.*, the grower has been forced to seek a more rational system of cultivation, and a more careful treatment of the plant and the curing of the leaf. Government pays particular attention to this culture. A Commission has been appointed for the purpose of studying and investigating the treatment of tobacco in Holland, and the results are to be adopted and propagated, so far as the climate admits.

It is very doubtful whether the labours of the Commission will greatly influence the farmers, who are of a very conservative disposition; moreover, there is a greater obstacle to struggle against, namely, their desire to increase the quantity of the production, and with it their income, without regard to the question of deterioration of the quality of tobacco; the peasantry, like other classes, participates in the desire to better its material condition.

The surface of land occupied by tobacco plantations represented in 1883 for the whole of the empire the con-

siderable figure of 22,068 *hectares*; this year a reduction is to be noted, as official reports bring the total to 21,108 *hectares* only.

The Grand Duchy of Baden participated in the above figures with 7788 *hectares* for 1883, and 7647 *hectares* for 1884.

Notwithstanding this difference, the result of the crop will not essentially be smaller (as regards the weight of the total), the new produce proving heavier in weight and in substance. While in 1883 the hectare produced about 1900 *kilo.*, it is supposed that for 1884 it will yield from 1800 to 2000 *kilo.* These figures tend to prove that the 1884 tobacco is richer in quality, and consequently more durable, and less capable of treatment than that of the preceding years; although the quality is somewhat inferior to that of 1882 and 1883 it may fairly be considered as good.

The subjoined remarks deal with the tobacco trade of Bremen. The number of casks of Kentucky tobacco sold in 1884 fell considerably below that disposed of in 1883. This is explainable by the circumstance that lugs and cuttings were altogether wanting. The prices of leaf on the whole remained steady, except in October and November, when they soon regained their firmness through no more supplies from America being expected, owing to the continued demand for strong tobacco in that country. Business in Virginia tobacco also suffered from the want of inferior qualities. Prices, considered high from the beginning, showed even a rising tendency at the end of the season. Transactions in Maryland and scrubs exceeded the average of the last five years. Ohio and Bay

suffered, as hitherto, from the protection afforded to home growths. Operations in stems were, considering the depression in trade, not unsatisfactory.

A good business was done in almost all descriptions of tobacco in serons, chests, bales, and baskets, and sales surpassed those of previous years.

The subjoined table presents a comparison of the transactions in the various sorts of tobacco during the last two years:—

Description of Tobacco.	Description of Packing.	Imports.		Sales.	
		1883.	1884.	1883.	1884.
Kentucky	Casks ..	20,828	12,084	20,012	12,514
Virginia	" ..	3,937	5,250	4,848	5,196
Maryland	" ..	4,929	5,615	4,579	5,811
Scrubs	" ..	383	1,363	383	1,027
Ohio	" ..	581	1,155	566	1,174
Bay	" ..	101	136	234	134
Stems	" ..	5,013	7,332	8,163	5,403
Havana	Serons ..	16,127	15,027	13,121	11,967
Cuba and Yara ..	" ..	22,467	22,259	29,297	17,383
St. Domingo	" ..	83,836	59,665	58,121	44,065
Seed-leaf	Chests ..	17,070	18,723	77,000	18,203
Porto Rico	Bales ..	1,133	300	1,137	2,210
Esmeralda	" ..	705	549	776	599
Columbia	{Serons and bales}	11,862	21,041	14,032	22,659
Varnias	{Leaves and rolls}	922	2,065	3,174	2,065
Brazil, in leaves ..	Bales ..	131,982	185,061	139,397	189,246
Paraguay	" ..	2,672	2,601	2,879	2,819
Rio Grande	" ..	4,571	..	10,199	1,340
Manilla	" ..	50	77	21	106
Mexican	"	10	..	10
Turkish and Greek ..	" ..	6,155	6,825	8,235	8,105
Other varieties ..	" ..	1,496	2,017	1,441	3,357

Good qualities of Havana fetched adequate prices. The demand for Cuba, Yara, Carmen, and Domingo was brisk;

Brazilian and Felix found ready buyers, owing to the last good crop, the prices rising towards the close of the year. The stock of Porto Rico was realized at a low figure. In seed-leaf Pennsylvania plants were chiefly imported, and, being of a good quality, were for the most part promptly disposed of. Much inclination was shown for Turkish tobacco, and the same remark applies to business in Paraguay, of which the supplies might have been greater. Chinese tobacco, very brisk at first on account of its fine quality, later on fell off again considerably.

The value of the tobacco consumed in Germany in 1878 is calculated to have been 353 million marks, or 17,650,000*l.* sterling, the total return to the revenue being 26,383,966 marks, or 1,319,198*l.* The quantity consumed in that empire in the year is stated at 2,196,000 cwt., or rather more than 100,000 tons. Of this quantity 582,600 cwt., or upwards of 29,000 tons, were consumed in the form of cigars. Reckoning a hundred cigars to a pound in weight, the number of cigars consumed in Germany in 1878 would be upwards of seven thousand millions, which would give two cigars a day all the year round to ten million smokers. But besides cigars the Germans smoked in the year 1,327,200 cwt., or upwards of 60,000 tons of tobacco more or less manufactured. In the form of snuff they took 160,600 cwt., or 8000 tons, in the course of the year, while in the way of chewing-tobacco they limited themselves to the moderate quantity of 14,200 cwt., or about 700 tons. Rather more than one-third of the total weight of tobacco consumed was grown within the limits of Germany, the quantity so produced in 1878 being 596,776 cwt., while the imports amounted to 1,768,855 cwt. of tobacco leaves,

4827 cwt. of roll tobacco, 14,170 cwt. of cigars, 8321 cwt. of stems for snuffs, 513 cwt. of snuff, and 101 cwt. of chewing-tobacco. The total area of land engaged in growing the plant in 1878 was 18,016 *hectares*, or about 44,520 acres. Two-thirds of that quantity was grown in Rhenish Bavaria, Baden, South Hesse, and Alsace-Lorraine, in which districts 11,623 *hectares* were employed in the cultivation of the plant.

Great Britain.—The proposal to re-establish tobacco culture in the United Kingdom has called for the following sensible article in the *Planters' Gazette*.

“The question of growing tobacco in the United Kingdom is not so simple as patriotic Irishmen and enthusiasts of acclimatization might think. Tobacco has been classed, like tea and coffee, as among those necessities of life which could not be grown with any advantage in the United Kingdom, and might therefore be freely taxed for revenue purposes. It is, indeed, true that a passable herb may be grown and called tobacco, in many parts of the United Kingdom, but the fact has been generally recognized that competition with more tropical countries is practically fruitless, and therefore to be abandoned. It is easily to be understood that so aromatic a crop, monopolizing so many of the best and rarest qualities of the soil, would require high manuring; and that, just as is the case of any other crop—such as hops, or even wheat—one could get nothing of the special excellence of the herb required but what one has previously put into the soil. But, to be profitable, the plant requires good heat as well as good soil. This, therefore, is the whole economical question, and upon that the matter mainly hinges. The

claim to grow real tobacco in England or Ireland is based upon the allegation that the herb can be grown at a profit. The best evidence furnished to the House of Commons on Monday evening on this point was that of Lord Harris, who affirmed boldly that Ireland and parts of England were prepared to enter into a fair competition with the recognized productive colonies. The Government, and with them, Lord Iddesleigh, are in favour of an experiment largely granting all that is asked, and carefully observing the result. Then, when the British tobacco comes upon the ordinary market, let it be taxed as any other similar product would be. The Government could not view with anything but dismay the prospect of a fall in revenue; and there is no question, therefore, that the home-grown tobacco must pay duty to the full. The *crux* of the question is how such duty can be enforced without an army of revenue officers, whose practical duties would bear no reasonable proportion to their probable cost. Our own impression is that tobacco can never be grown in these islands on any large scale to compete with the growers within the tropics, and that the expense of collecting revenue would be out of all proportion to the amount collected. At the same time, it ill becomes us as a Free-trading nation to shut out any class of our own countrymen, by duties distinctly prohibitive, from following a branch of agriculture which they think they could make profitable. It is against our principle to offer a bounty on the forced cultivation of exotics, such as tobacco undoubtedly is when grown in these islands, but it would be still worse to maintain, on merely pedantic grounds, a prohibitive import on a crop which many men think the

smaller tenants could produce to the great advantage of their holdings. We are by no means sanguine of their success; but that is no reason why they should not try."

Greece.—The production of tobacco in Greece is about 4 million *okes* (of $2\frac{3}{4}$ lb.) annually. Patras, in 1878, exported 300 tons to Holland, Austria, and Turkey, at a value of 25–30*l.* a ton. The values of the exports from Syra, in 1879, were 3503*l.* to Great Britain, 2325*l.* to Turkey, 88*l.* to the Danubian Principalities, 236*l.* to France, 554*l.* to Austria, 436*l.* to Egypt, 1605*l.* to Russia; and in 1878, 1528*l.* to Turkey, 1875*l.* to Great Britain, 93*l.* to the Danubian Principalities, 441*l.* to Austria, 334*l.* to France, 266*l.* to Russia, 39*l.* to Egypt.

In 1884, Nauplia exported 13,000*l.* worth of tobacco; and Calamata, 2400*l.* worth. The value at Patras was 45*s.* per cwt. Syra imported 439*l.* worth of tobacco and 305*l.* worth of tumbeki from Turkey; but exported 10,459*l.* worth of tobacco to Turkey, 697*l.* worth to Great Britain, 17,723*l.* worth to Egypt, 200*l.* worth to Russia, 120*l.* worth to Roumania, 2963*l.* worth to Italy, 1176*l.* worth to France, and 200*l.* worth to Austria.

Holland.—There were 4117 acres under tobacco in Holland in 1878, which produced 3,132,875 *kilo.* The imports of tobacco into Holland in 1878 were as follows:—Maryland, 5249, Kentucky, 500, and Virginian, 107 hogsheads; Java, 87,998, seed-leaf, 100, Sumatra, 33,671 packages. In 1876 and 1877, there were 5900 and 3993 packages respectively from Rio Grande. The exports of leaf from Holland in 1879 were 3,900,000 *kilo.*