

The annual production of cotton is shown in the following table.

	Kilograms.	Value.
Lower California.....	110,057	\$ 8,369
Chiapas.....	680,672	50,111
Chihuahua.....	1,702,918	128,960
Coahuila.....	9,607,677	2,710,000
Colima.....	16,224	1,058
Durango.....	7,975,256	1,337,126
Guerrero.....	1,679,905	136,500
Hidalgo.....	2,819	675
Jalisco.....	72,556	20,975
Michoacan.....	134,623	12,350
Nuevo Leon.....	78,530	12,322
Oaxaca.....	881,010	109,447
Puebla.....	18,732	2,496
San Luis Potosí.....	5,178	1,725
Sinaloa.....	596,251	69,320
Sonora.....	456,862	173,400
Tamaulipas.....	2,031	200
Tepic.....	368,198	32,000
Veracruz.....	3,062,375	275,497
Total.....	27,451,874	\$ 5,082,531

Cocoa [*Theobroma cacao*] a very superior kind of this is cultivated in the hot and humid parts of our sea-board, that from Tabasco and from the district of Soconusco in the State of Chiapas being of the very best class, and considered very superior to all that is cultivated in other countries.

The annual production of this useful plant is as follows:

	Kilograms.	Value.
Chiapas.....	411,451	\$ 342,426
Colima.....	856	800
Guerrero.....	1,427	1,152
Carried forward.....	413,734	344,378

	Kilograms.	Value.
Brought forward.....	413,734	344,378
Michoacan.....	2,803	3,790
Oaxaca.....	2,950	2,663
Tabasco.....	574,470	454,518
Veracruz.....	5,377	5,079
Total.....	1,099,334	\$ 810,428

Indigo [*Indigofera*] is cultivated in Chiapas, Oaxaca, Guerrero, Michoacan, Colima and Jalisco, and although the eastern coast is perfectly adapted to the cultivation of this plant, and it is found there growing wild, the plantations of this useful article are limited to the coasts of the Pacific. This is an annual plant and during its life is cut two or three times; it does not require any great expenditure either of money or of labor for the extraction of the coloring matter.

Of the different classes of indigo which are known, that from San Salvador is the most highly valued, and after that, those of the Republics of Guatemala and Mexico. The annual production of this country is shown in the following table.

	Kilograms.	Value.
Chiapas.....	199,229	\$ 209,740
Colima.....	9,430	20,500
Guerrero.....	2,877	3,500
Jalisco.....	17,073	24,100
Michoacan.....	11,851	27,600
Oaxaca.....	36,935	47,320
Total.....	277,395	\$ 332,760

The hot country produces many other useful plants, amongst which may be cited the zarzaparrilla [*Smilax medica*] which is abundantly propagated; Tabasco pepper [*Eugenia pimenta*], manioc [*Iatropa manihot*], which produces starch, the mafafa, [*Xanthosoma robustum*], with a tuberculous root and the ma-

ranta arundinacea, from which is extracted the fecula of arrow root.

A very great number of plants are produced in the hot country which are useful both in medicine and in the industries, as well as many kinds of lichens which are useful for dyeing purposes, one of them being the *orchilla*, found in lower California which to-day forms an important article of exportation.

The zone which extends between the elevations of 1,000 and 1,600 metres, more or less, is that in which nature shows herself in her true richness and prodigality, having not only the vegetation that belongs to its own altitude, but a great deal that belongs to the Torrid Zone and the cold Zone. On the upper part of this zone we find large forests of oak, adorning the hills with their many colored leaves, whilst in the valleys we find thickets of myrtle, laurel, euforbiaceas, and kindred plants in rich variety. The valleys are full of forests of the beautiful liquidambar [*Liquidambar styraciflua*], which elevate their handsome tops, and give shelter to numerous flocks of birds, amongst them the *clarin de la selva* with its enchanting trumpet like note.

Like the hot region, this Temperate Zone produces many trees which are highly esteemed both for their fruits and precious woods, whilst the trunks and branches are covered with vines and creepers from which hang beautiful flowers and the orchids which grow in every little hole in the bark display their handsome colors and increase the beauty of the scene.

When this zone extends itself in to the heart of the mountains, its beauties are further increased by the water-falls that are so frequently found in the streams, giving the landscape a peculiar beauty which disappears at a greater altitude when it begins to be covered by the resinous plants.

The undulating crests of the high mountains are covered by coniferous trees, and the same may be said of the edge of the great Central Table-land, which is situated at an altitude of about 1,600 metres. The plains over this table-land which are

partly broken up by the ranges which radiate from the great Sierras, are covered with rich crops of wheat, barley, or corn during the Summer months, and especially is this the case in those spots where the agriculturist finds natural irrigation which enables him to cultivate all the year around. These lands are known as "irrigable lands" in contra-distinction to the dry spots which are known as season lands.

The great elevation of the Central Table-land, and the formation of its ranges with their perpendicular slopes, often covered with rocks of a volcanic formation which favor the filtration of the water, are the reasons why the interior of the country has comparatively few streams which can be utilized in agriculture, and especially is this so in the Northern regions of the country, where the traveller only finds a few brooks or water-holes here and there leaving the rest a desert.

The presence of the resinous plants indicates the complete transition from the Temperate to the cold zone. From an elevation of 2,700 to 3,000 metres, we find a rich and endless variety of conifers; but above that limit the vegetation begins to show a want of vigor until it completely disappears at an elevation of 3,980 metres, giving place to a short grass that in its turn disappears entirely at 4,180 metres.

Beautiful forests are formed of the ahuehuetes [*Taxodium distichum*], the pitch-pine [*Pinus communis*], the white cedar [*Eupressus Lindley*], the oyamel [*Pinus religiosa*], the mountain cedar [*Chamoecypares thurifera*]: giving to the mountains by their orderly distribution, particularly of the oyameles, a picturesque conical form, which is peculiar to the cold region.

Some mountains are found to be covered by dwarf oaks, and mimosas, whilst on the plains one of the principal trees is the Perú [*Schinus molle*], tejocote [*Crataegus mexicana*], agaves and cacti which grow in many parts of the Republic, and some of which can be said to form forests on the mountain side, such as the prickly-pear [*Cactus opuntia*], or scattered on other slopes, such as the small and large biznaga [*Mamillaria mani-*

mama and *parvimama*], or else forming fences in the villages like the organ, [*Cactus exagonus*] and the pitahaya [*Cereus pitahaya*], whilst the garden fences and walls are covered with the dwarf prickly pears [*Cereus phillantus*], with magnificent red or white flowers, the magueys [*Agaves*], are found in all parts, either forming fences on the roadside, or planted in regular lines, and giving to the country a monotonous aspect which is in great contrast with the cultivated fields, the alfalfa plantations and the other crops that are found in the neighborhood of the villages.

The fields and lands in the neighborhood of different villages, particularly in the valley of Mexico, are ornamented with groups of handsome trees, at times in groves, and at others standing isolated on the plain amongst, which we find, the corpulent cedar, the willows, and the shady ash trees [*Fraxinus excelsior*], whilst in the gardens and orchards a large variety of fruit trees are cultivated, such as pears [*Pyrus communis*], peaches [*Persea vulgaris*], apricots, [*Prunus armeniaca*], wild cherries [*Cerasus capollin*], alligator pears [*Persea gratissima*], apples [*Pyrus malus*], small apples [*Pyrus malus*? var.], figs [*Ficus carica*], walnuts [*Juglans mucronata granatenis* and *regia*], white zapote [*Casimiroa edulis*] pomegranates [*Punica granatum*], cherries [*Cerasus vulgaris*], quinces [*Cydonia vulgaris*], and many others too numerous to mention.

All kinds of table vegetables are also produced in great abundance and variety.

1. The most handsome examples of cedars are found in the park at Chapultepec, and in other places of the valley of Mexico, in Atlixco, (Puebla), and in Santa María del Tule (Oaxaca), is found the most corpulent tree known of this class. This cedar, a real giant in vegetation, measures at about one metre above the ground, 51.88 M. in circumference, with a total elevation of 38.68 metres. In order to give an idea of the enormous volume of the trunk and of its foliage, it is enough to say that ten persons can easily stand together in one of the

hollows of the first, and that the second, has the appearance of a large and dense forest. The most beautiful flowers, with a rich and extensive variety, are cultivated in the gardens that are found in almost all the towns and country houses, being one of the principal ornaments of the dwellings. The number of these flowers that grow wild in the fields and mountains is infinite, so much so, that in certain seasons of the year, they appear to be covered not with weeds and pasture, but with a variegated and many colored carpet, the highest parts being covered with the modest and fragrant flower of St. John [*Bouvardia longiflora*], with the precious and not less fragrant tuberose rose [*Polyhantes tuberosa*], and with the rose colored and graceful angel's wing, or *Begonia discolor*.

Maize [*Zea mair*] is the most prolific plant grown in Mexico, and its cultivation is extended over the whole territory without any distinction of zones, but it is more prolific in the hot country where it gives a return of 250 or 300 for one, and in some districts even as much as 500 or 800 for one, these being districts in which three crops are taken per annum. The excessive heat of this section and the insects which attack the grain do not permit, as in the colder districts, the storing of this crop for any length of time. In the intermediate zones the crops will give from 175 to 200 for one, and in the cold regions the general return is 100 to 120 for one. We thus find that the production of this grain varies according to the temperature, humidity and heat of the district, as well as the care used in its cultivation, the latter condition having also a good deal to do with the different varieties that are developed.

Corn constitutes the principal article of food of the lower classes of the people, and of the larger part of the domestic animals.

According to the latest data, received in the department of Fomento, the annual production of corn is as follows:

	Hectolitres.	Value.
Aguascalientes.....	627,530	1,087,750
Lower California.....	11,049	30,360
Campeche.....	147,032	305,910
Chiapas.....	1,249,995	1,327,770
Chihuahua.....	587,236	1,201,605
Coahuila.....	607,460	1,410,000
Colima.....	870,364	926,093
Distrito Federal.....	329,913	915,365
Durango.....	956,853	2,042,937
Guanajuato.....	3,595,389	5,194,229
Guerrero.....	589,989	998,664
Hidalgo.....	739,719	1,688,332
Jalisco.....	3,275,148	4,383,964
México.....	1,673,330	3,625,406
Michoacan.....	1,550,192	2,416,086
Morelos.....	262,099	492,571
Nuevo Leon.....	447,063	752,235
Oaxaca.....	2,548,091	4,441,645
Puebla.....	1,612,287	3,222,215
Querétaro.....	519,349	1,054,905
San Luis Potosí.....	1,315,550	1,751,901
Sinaloa.....	326,618	848,314
Sonora.....	204,368	523,875
Tabasco.....	227,126	359,455
Tamaulipas.....	252,675	661,870
Tepic.....	361,034	521,710
Tlaxcala.....	200,617	407,358
Veracruz.....	918,106	2,246,506
Yucatan.....	706,223	1,422,296
Zacatecas.....	962,832	1,618,500
	27,774,237	\$ 47,879,827

Wheat is produced in the cold regions, and of an excellent class in the valleys of Mexico and Toluca, in those of Atlixco and San Martin of the State of Puebla, in the low lands of the State of Guanajuato, in Querétaro, Michoacan, Coahuila and

Sonora. The returns of wheat average from 22 to 25 for one, but on fertile lands, and where well cultivated it reaches a return of 30 to 40 for one, whilst in the valley of Atlixco, and the fertile lowlands of Guanajuato, and others that we have mentioned the average often runs up to as high as 70 to 80. The Mexican flour is white and nutritious, and makes a very good class of bread.

The anual production of wheat is as follows:

	Hectolitres.	Value.
Aguascalientes.....	36,234	157,650
Lower California.....	8,337	40,220
Chiapas.....	18,703	89,310
Chihuahua.....	380,089	1,066,710
Coahuila.....	392,367	1,143,750
Distrito Federal.....	3,832	20,020
Durango.....	78,226	272,916
Guanajuato.....	499,904	1,954,832
Guerrero.....	55	270
Hidalgo.....	29,559	123,740
Jalisco.....	142,320	596,498
México.....	329,783	1,403,473
Michoacan.....	288,465	1,031,269
Morelos.....	1,853	8,160
Nuevo Leon.....	28,626	76,240
Oaxaca.....	200,278	804,791
Puebla.....	265,921	1,359,598
Querétaro.....	114,140	508,128
San Luis Potosí.....	111,911	431,857
Sinaloa.....	2,813	9,310
Sonora.....	381,720	1,001,250
Tamaulipas.....	36	160
Tepic.....	781	3,660
Tlaxcala.....	63,047	367,049
Veracruz.....	4,540	17,500
Zacatecas.....	46,764	169,622
	3,430,304	\$ 12,657,983

Beans [*Phaseolus vulgaris*]. This leguminous seed is an inseparable companion of maize, and like the latter is produced in all the climates; it constitutes a very large part of the food of the poorer classes, and is a favorite dish with the richer. There are many varieties of this plant, but the principal are known under the names of *Parraleño*, *Bayo*, *Ayacote*, small white and black.

The annual production is as follows:

	Hectolitres.	Value.
Aguascalientes.....	53,165	\$ 239,630
Lower California.....	1,445	11,440
Campeche.....	1,453	6,500
Chiapas.....	33,702	178,860
Chihuahua.....	83,969	390,025
Coahuila.....	38,594	166,500
Colima.....	8,326	26,341
Distrito Federal.....	9,982	30,791
Durango.....	33,951	136,765
Guanajuato.....	122,412	284,863
Guerrero.....	7,648	45,508
Hidalgo.....	35,317	159,232
Jalisco.....	81,719	291,106
México.....	28,534	177,376
Michoacan.....	29,453	115,163
Morelos.....	7,243	40,128
Nuevo Leon.....	4,022	17,218
Oaxaca.....	36,009	207,102
Puebla.....	74,394	375,225
Querétaro.....	64,849	183,303
San Luis Potosí.....	21,822	81,890
Sinaloa.....	18,984	86,580
Sonora.....	34,925	213,575
Tabasco.....	6,821	53,145
Tamaulipas.....	5,783	27,494
Tepic.....	8,447	37,750
Carried forward.....	852,969	\$ 3,583,510

	Hectolitres.	Value.
Brought forward.....	852,969	\$ 3,583,610
Tlaxcala.....	4,817	25,756
Veracruz.....	38,772	246,415
Yucatan.....	16,054	54,348
Zacatecas.....	42,448	159,278
	955,060	\$ 4,069,307

Barley [*Hordeum vulgaris*], will grow even to the considerable altitude of 10,000 feet, where maize will not give any seed. Barley is cultivated in almost the entire Republic and more especially in the vicinity of the large towns, and of the principal high roads. Its product varies from 40 as high as 70 to one. Both the seed and the straw are largely used as food for horses, mules and other animals.

The following table shows the annual production.

	Hectolitres.	Value.
Aguascalientes.....	10,575	\$ 11,600
Lower California.....	4,550	7,575
Chiapas.....	1,862	7,667
Chihuahua.....	10,889	20,001
Coahuila.....	161,630	375,000
Distrito Federal.....	29,460	51,070
Durango.....	3,105	8,495
Guanajuato.....	147,063	152,524
Guerrero.....	273	300
Hidalgo.....	358,596	523,208
Jalisco.....	29,403	34,127
México.....	448,037	834,865
Michoacan.....	57,511	76,593
Morelos.....	445	737
Nuevo Leon.....	6,020	11,548
Oaxaca.....	117,782	95,754
Puebla.....	429,949	667,795
Querétaro.....	43,170	60,039
Carried forward.....	1,860,320	\$ 2,938,898

	Hectolitres.	Value.
Brought forward.....	1,860,320	\$ 2,938,898
San Luis Potosí.....	21,121	31,734
Sinaloa.....	908	3,000
Sonora.....	5,389	11,192
Tamaulipas.....	726	1,600
Tepic.....	831	1,975
Tlaxcala.....	155,828	218,585
Veracruz.....	57,787	72,354
Zacatecas.....	28,894	52,483
	<hr/> 2,131,714	<hr/> \$ 3,331,822

Chick peas [*Cicer arietinum*]. This plant is principally cultivated in places which have been inundated by the overflow of the rivers or lakes. Its cultivation is most advantageously carried on during winter, because after the crop is taken off the ground is easily prepared for the cultivation of corn. There are two classes of this seed, both of good quality and largely consumed by the people of the middle class, whilst the smaller class is what is mostly consumed by the poor people, and in the fattening of hogs.

The annual production is as follows:

	Hectolitres.	Value.
Lower California.....	162	\$ 1,172
Chiapas.....	492	4,752
Chihuahua.....	5,950	18,881
Coahuila.....	8,627	32,500
Durango.....	1,150	5,052
Guanajuato.....	85,827	218,264
Guerrero.....	2,822	11,918
Hidalgo.....	336	990
Jalisco.....	30,110	66,383
México.....	54	210
Michoacan.....	71,939	147,858
Carried forward.....	<hr/> 207,469	<hr/> \$ 507,980

	Hectolitres.	Value.
Brought forward.....	207,469	\$ 507,980
Morelos.....	545	5,400
Nuevo Leon.....	589	2,650
Oaxaca.....	2,414	8,876
Puebla.....	349	1,526
Querétaro.....	15,937	52,365
San Luis Potosí.....	2,050	3,878
Sinaloa.....	2,741	10,088
Sonora.....	7,420	40,700
Tamaulipas.....	395	2,223
Tepic.....	545	1,650
Zacatecas.....	222	960
	<hr/> 238,676	<hr/> \$ 636,296

Peas [*Pisum sativum*]. This is very largely cultivated and is consumed both dry and green. In many places, and principally in the low lands of Guanajuato it is used for the fattening of hogs.

The annual production is as follows:

	Hectolitres.	Value.
Lower California.....	581	\$ 3,920
Chihuahua.....	9,612	52,038
Distrito Federal.....	2,001	7,955
Durango.....	23	150
Guanajuato.....	3,291	15,636
Hidalgo.....	15,143	44,842
Jalisco.....	280	1,115
México.....	13,006	39,198
Michoacan.....	912	2,819
Morelos.....	91	300
Nuevo Leon.....	9	15
Oaxaca.....	2,851	5,092
Puebla.....	11,541	41,099
Querétaro.....	27	120
Carried forward.....	<hr/> 59,368	<hr/> \$ 214,299

	Hectolitres.	Value.
Brought forward.....	59,368	\$ 214,299
Sonora.....	832	3,710
Tlaxcala.....	2,185	3,944
Veracruz.....	1,891	8,461
	<hr/> 64,276	<hr/> \$ 230,414

Lentils [*Ervum lens*]. The consumption of this seed is not on such a large scale as that of the others we have mentioned and therefore its cultivation is relatively smaller, as may be seen from the following table of annual production.

	Hectolitres.	Value.
Aguascalientes.....	45	\$ 200
Lower California.....	36	140
Chiapas.....	91	150
Chihuahua.....	2,730	6,208
Durango.....	1,022	3,656
Guanajuato.....	1,108	4,620
Hidalgo.....	116	760
Jalisco.....	109	180
México.....	732	3,010
Michoacan.....	572	935
Nuevo Leon.....	5	25
Oaxaca.....	27	105
Puebla.....	256	1,029
Querétaro.....	1,480	4,890
Sonora.....	480	2,450
Tlaxcala.....	936	2,090
Zacatecas.....	196	735
	<hr/> 9,941	<hr/> \$ 31,183

Lima beans [*Vicia faba*]. This important crop is produced in almost all the States of the Republic, and particularly in the sandy plains of the cold region. It is served on the table in the shape of puré, and is also employed as forrage for horses and hogs. Its annual production is as follows:

	Hectolitres.	Value.
Aguascalientes.....	46	\$ 100
Lower California.....	18	60
Chiapas.....	647	2,818
Chihuahua.....	3,166	8,636
Distrito Federal.....	4,236	12,945
Durango.....	2,468	8,454
Guanajuato.....	10,235	17,580
Hidalgo.....	11,834	25,534
Jalisco.....	163	300
México.....	26,752	69,764
Michoacan.....	13,945	17,178
Morelos.....	301	564
Nuevo Leon.....	22	54
Oaxaca.....	3,163	5,746
Puebla.....	63,671	133,464
Querétaro.....	227	625
San Luis Potosí.....	249	765
Sonora.....	212	692
Tlaxcala.....	41,285	55,331
Veracruz.....	1,772	3,216
Zacatecas.....	490	1,335
	<hr/> 184,902	<hr/> \$ 365,161

Sesame seed [*Sesamum indicum*]. This is one of the principal oil producing plants, among those which are cultivated in the Republic. It produces as high as 50 per cent of oil, which is used as medicine as well as for lighting and in the manufacture of soap. The seed, either raw or toasted, is used as a condiment for certain stews and preserves.

The following table shows the annual production.

	Kilograms.	Value.
Chiapas.....	7,019	\$ 915
Colima.....	51,150	200
Guerrero.....	818,091	35,855
Carried forward.....	<hr/> 876,260	<hr/> \$ 36,970