Historic, archived document

Do not assume content reflects current
scientific knowledge, policies, or practices.

281.9
F76Fm.
#203

DECIDUOUS FRUIT CANNING IN FRANCE

U.S. DEPARTMENT
OF AGRICULTURE
FOREIGN
AGRICULTURAL
SERVICE
FAS-M 203
APRIL 1969

THE FRENCH DECIDUOUS FRUIT INDUSTRY

INDEX TO DÉPARTEMENTS

1. PAS-DE-CALAIS	20. SEINE-ET-MARNE	39. INDRE-ET-LOIRE	58. CREUSE	77. HAUTES-ALPES
2. NORD	21. MARNE	40. LOIR-ET-CHER	59. PUY-DE-DÔME	78. ALPES-MARITIMES
3. SOMME	22. MEUSE	41. CHER	60. LOIRE	79. BASSES-ALPES
4. ARDENNES	23. MEURTHE-ET-MOSELLE	42. NIÈVRE	61. RHÔNE	80. VAUCLUSE
5. AISNE	24. MOSELLE	43. CÔTE-D'OR	62. AIN	81. GARD
6. OISE	25. BAS-RHIN	44. HAUTE-SAÔNE	63. HAUTE-SAVOIE	82. TARN
7. SEINE-MARITIME	26. VOSGES	45. HAUT-RHIN	64. SAVOIE	83. TARN-ET-GARONNE
8. EURE	27. HAUTE-MARNE	46. BELFORT	65. ISÈRE	84. GERS
9. CALVADOS	28. AUBE	47. DOUBS	66. HAUTE-LOIRE	85. LANDES
10. MANCHE	29. YONNE	48. JURA	67. CANTAL	86. BASSES-PYRÉNÉES
11. ORNE	30. LOIRET	49. SAÔNE-ET-LOIRE	68. CORRÈZE	87. HAUTES-PYRÉNÉES
12. EURE-ET-LOIR	31. SARTHE	50. ALLIER	69. DORDOGNE	88. HAUTE-GARONNE
13. VAL-D'OISE	32. MAYENNE	51. INDRE	70. GIRONDE	89. HÉRAULT
14. YVELINES	33. ILLE-ET-VILAINE	52. VIENNE	71. LOT-ET-GARONNE	90. BOUCHES-DU-RHÔNE
15. ESSONNE	34. CÔTES-DU-NORD	53. DEUX-SÈVRES	72. LOT	91. VAR
16. HAUTS-DE-SEINE	35. FINISTÈRE	54. VENDEE	73. AVEYRON	92. AUDE
17. PARIS	36. MORBIHAN	55. CHARENTE-MARITIME	74. LOZÈRE	93. ARIÈGE
18. SEINE-ST-DENIS	37. LOIRE-ATLANTIQUE	56. CHARENTE	75. ARDÈCHE	94. PYRÉNÉES-ORIENTALES
19. VAL-DE-MARNE	38. MAINE-ET-LOIRE	57. HAUTE-VIENNE	76. DRÔME	95. CORSE

Principal fruit - producing regions

Principal fruit - canning areas

Foreword

The processing of canned food began in 1809 in the Paris kitchen of Nicholas Appert as he worked to win the prize offered by Napoleon for a new method of preserving the foods needed to feed his army.

Today, France has a fairly large food processing industry, part of it canning the deciduous fruits of the country's many orchards. Although other countries have established larger deciduous fruit canning industries, France—as a member of the European Community—enjoys an advantage that could limit the sales of other suppliers, including the United States, to the large EC market. This survey covers current and prospective trends in the French industry and their effects on the EC canned deciduous fruit market.

The author gratefully acknowledges the cooperation of French Government officials, agricultural specialists, fruit growers, and members of the canning industry, as well as assistance from the U.S. Agricultural Attaché's staff in Paris, especially Assistant Agricultural Attaché Frank A. Padovano.

A handwritten signature in cursive script, reading "JW Stewart".

J. W. Stewart, Director
Fruit and Vegetable Division

Contents

	Page
Introduction	1
Fruit production:	
Main producing regions	1
Fruit production and acreage	3
Grower costs and income	5
Cultural practices	6
Irrigation developments	6
Marketing	7
Processing:	
Plants	8
Processing costs	8
Canned fruit pack	8
Consumption and trade	9

Deciduous Fruit Canning in France

by Henry O. Wagley, Jr.
Fruit and Vegetable Division

Introduction

Irrigation, up-to-date cultural practices, and heavy investment in new, modern processing plants are restructuring and relocating the French canned deciduous fruit industry. Traditionally, canned deciduous fruit production was concentrated in the Pyrénées Orientales area of the Languedoc region and served as a home for surplus fruit produced for the fresh market. Now, the Mediterranean Languedoc region near Nîmes is being redeveloped and planted with fruit produced specifically for processing.

French production of canned deciduous fruit is still relatively small, totaling 1,958,000 cases, equivalent 24/2½ basis, in 1967. The pack can be expected to increase slowly in the older established area. The real potential lies in the new land being developed in the Languedoc region. Production of deciduous fruit for canning is also being developed on a smaller scale on the island of Corsica.

Production of clingstone peaches, the major fruit canned, will increase rapidly in the newer area during the early 1970's. Sufficient acreage has been planted to support a French clingstone pack approaching 1.9 million cases in the next 5 years. If the price of canned fruit continues to decline within France, much of the expanded canned peach pack could be absorbed domestically and by natural expansion into the canned fruit markets of the other EC countries. The French balance of trade in canned fruit can be expected to switch from a net inflow to a net outflow, and French penetration of the canned peach market in other EC countries could reach 10-15 percent during the next 5 years.

Fruit Production

Main producing regions

France has five major fruit producing regions, which cut a wide swath across the south from the Atlantic Ocean to the Italian and Swiss borders. These regions are Aquitaine, Midi Pyrénées, Languedoc, Rhône Alpes, and Provence-Côte d'Azur-Corsica.

Commercial canning of deciduous fruit, except plums, is important only in the Languedoc region. The Lorraine region of northeastern France is an important center for Mirabelle plums. Commercial canning of deciduous fruit is being developed on the island of Corsica in the Provence-Côte d'Azur-Corsica region, where a modern cannery is scheduled to begin operation during the 1969 season. Commercial processing in the other regions is confined mostly to production of jams and preserves. Some of the fruit grown in these regions is shipped into Languedoc for canning.

Languedoc Region.—The Languedoc region can be called the heart of the French canned fruit industry. It consists of five Departments skirting the Mediterranean Sea from the Spanish border to the city of Nîmes. These departments are Pyrénées-Orientales, Aude, Hérault, Gard, and Lozère. Terrain varies from mountainous along the region's interior border down through hills and plateaus to the narrow Mediterranean plain. Production of canned deciduous fruit is mostly concentrated in two separate areas—an older area in Pyrénées-Orientales in the south and a newer area in Hérault and Gard in the east.

French Commercial Production of Specified Deciduous Fruit During 1967

Region	Table apples	Apricots	Cherries	Peaches	Table pears	Plums
	<i>1,000 short tons</i>	<i>1,000 short tons</i>	<i>1,000 short tons</i>	<i>1,000 short tons</i>	<i>1,000 short tons</i>	<i>1,000 short tons</i>
Aquitaine	131	(¹)	6	9	26	9
Midi-Pyrénées	254	(¹)	10	16	17	16
Languedoc	169	95	18	113	34	5
Rhône Alpes	92	5	23	134	62	4
Provence-Côte d' Azur-Corsica	232	13	31	81	113	6
Other	697	-	31	90	118	42
Total France	1,575	113	119	443	370	82

¹ Less than 500 tons.

Climate is typically Mediterranean in the Languedoc region. Winters are mild, and summers are not excessively hot. Rainfall is heavy during the fall, light in the spring, and minor during the summer. In Pyrénées-Orientales monthly temperatures at Perpignan—the largest area of population—range from an average low of 39° F. in January to an average high of about 84° F. during July. The temperature falls below freezing about 13 days each year. Annual rainfall averages 24.7 inches, and localized hailstorms are frequent between April 15 and August 15. In Nîmes (Gard) temperatures average about 44 degrees during the winter, 56 degrees in spring, 72 degrees in summer, and 58 degrees during the fall. Weather bureau reports indicate an annual average of 4 days snowfall and 32 days of below-freezing temperatures. Annual rainfall averages 29 inches. Montpellier temperatures (Hérault) range from a monthly low of 34 degrees in January to a high of about 84 degrees in July, and rainfall averages 27 inches. Frequent drying windstorms are prevalent in the Languedoc region. The mistral, a strong, dry, cold wind, blows from the north and northwest off the Massif Central Mountains for periods of 3 to 5 days at a time.

Pyrénées Orientales covers a total surface of approximately 1 million acres, over half of which consists of forests and other uncultivated land. Approximately 16 percent is utilized for viticulture and 2 percent for other fruit

Average Monthly Temperatures and Rainfall at Montpellier and Perpignan, 1921-50

Month	Montpellier					Perpignan				
	Temperature		No. of days temp. falls below freezing	Precipitation		Temperature		No. of days temp. falls below freezing	Precipitation	
	Low	High		Amount	Frequency	Low	High		Amount	Frequency
	<i>Degrees (F.)</i>	<i>Degrees (F.)</i>	<i>Days</i>	<i>Inches</i>	<i>Days</i>	<i>Degrees (F.)</i>	<i>Degrees (F.)</i>	<i>Days</i>	<i>Inches</i>	<i>Days</i>
January	34.3	51.3	13	2.2	8	39.0	53.8	5	1.7	7
February	35.6	54.1	11	1.4	6	40.8	56.3	3	1.8	6
March	40.5	58.6	12	2.8	8	44.1	60.4	1	2.4	8
April	45.5	63.3	--	2.4	9	48.9	65.8	--	1.8	8
May	51.4	69.8	--	2.0	9	54.5	71.2	--	1.9	9
June	57.2	78.3	--	1.0	6	61.3	79.2	--	1.2	6
July	61.2	83.7	--	.8	3	65.8	84.2	--	.7	4
August	61.5	82.2	--	1.6	6	65.7	83.7	--	1.6	5
September	57.2	76.5	--	3.9	7	61.3	77.5	--	2.7	7
October	49.5	68.4	--	2.8	9	54.3	69.4	--	3.9	8
November	41.9	59.0	3	2.8	9	46.0	60.6	--	2.3	7
December	35.6	51.4	10	3.1	10	40.8	54.1	4	2.7	8

production. Orchards are small, mostly less than 12 acres. Fruit production is localized on the Mediterranean plain and along river valleys extending west into the mountains. Deciduous fruit trees and grape vines or vegetables are intermixed in many fields. Newer orchards in the valleys are mainly solid plantings. Some solid plantings are intermixed with vegetables while the trees are small.

The Departments of Hérault and Gard cover approximately 3 million acres on the northeastern end of the Languedoc region. This has been a poor region where agriculture traditionally has been devoted to grape cultivation. However, a massive irrigation project being developed by the National Company for the development of the Lower Rhône and Languedoc districts (CNARBRL) is transforming the entire agricultural economy of the area. The company resells land it acquires to producers and provides technical assistance in the planting and care of new orchards. Orchards are mostly 25-50 acres of solid-planted fruits.

Provence-Côte d'Azur-Corsica.—The Provence-Côte d'Azur-Corsica region comprises seven Departments in southeastern France—Basse Alpes, Hautes Alpes, Alpes Maritimes, Bouches du Rhône, Var, Vaucluse, and Corsica. Terrain is similar to that of the Languedoc region except that the coastal plain becomes much narrower as it progresses eastward. Interior valleys and plateaux enjoy a continental Mediterranean climate, while the sea influences climate along the coastal plain.

Commercial production is oriented primarily toward the fresh market, and only a small amount of mainland tonnage from areas bordering the Languedoc region is normally used for canning. A canned fruit industry is planned to handle the tree fruit acreage being developed along the eastern coast of Corsica.

Fruit production and acreage

Commercial production of deciduous fruit for the fresh market and for processing is expected to increase in the next few years. Plantings of peaches have generally been heavy in the Languedoc region and in Corsica. Plantings of apricots in Hérault and Gard have been pretty well balanced by the acreage decline in Pyrénées-Orientales.

The trend toward planting clingstone peaches is evident in the major fruit-growing areas. Clingstone acreage has risen from a 1962 total of less than 100 acres to almost 4,500 acres. Production of clingstone peaches is forecast at over 50,000 tons by 1973 and is expected to reach a larger scale in Hérault and Gard than in either Pyrénées-Orientales or Corsica.

Production of peaches and cherries is expected to increase slowly during the next few years in Pyrénées-Orientales. Clingstone peach plantings have been increasing, but the area is expected to remain heavily oriented to the fresh market because its southern climate allows harvest of fruit suitable for sale in the fresh market 10 to 15 days before other French production areas.

Many producers, therefore, aim at the generally high returns of the early fresh market. Current plantings of Golden Delicious apples are also aimed at the fresh market. Not much change can be expected in the composition of the very small intermixed orchards of fruits and grapevines or vegetables bordering Perpignan. Construction of a planned dam near Prades, however, would open approximately 7,500 acres to fruit and vegetable production and accelerate planting of clingstone peaches.

Substantial plantings of apricots and cherries are being made in Hérault and Gard as irrigation water becomes available. Approximately 40 percent of the apricot acreage and 28 percent of the cherry acreage in Gard is nonbearing. Total solid-planted peach acreage in Gard increased almost five times, from 2,965 acres to 14,300 acres, between 1961 and 1967. In 1967, 39 percent of the total Gard peach acreage was still nonbearing. Gard is France's largest producer of clingstone peaches. Clingstone peach area there now totals 2,471 acres, one-half of which was planted during 1966 and 1967. Heavy plantings of apples for the fresh market and pears for both the fresh market and for processing have been made in the Gard during recent years. Approximately 35 percent of the pear acreage and 17 percent of the apple acreage is nonbearing. Golden Delicious accounts for over 70 percent of all apple acreage.

Corsica is concentrating on increasing peach acreage on a smaller scale. Acreage in 1966, at 1,112 acres, was more than double that of 1961. Clingstone peach acreage now totals 494 acres, surpassed only by Gard and Pyrénées-Orientales.

Acreage of Selected Deciduous Fruits in the Languedoc and Provence-Côte d'Azur-Corsica Regions

Item	Solid planted						Intermixed or isolated					
	1961	1962	1963	1964	1965	1966	1961	1962	1963	1964	1965	1966
LANGUEDOC-ROUSSILLON												
Apricots:												
Pyrénées-Orientales.....	8,401	7,907	7,907	7,413	7,537	7,660	13,343	11,120	10,625	10,625	10,255	10,378
Hérault.....	494	445	484	815	828	741	124	124	193	1,174	1,248	1,236
Gard.....	2,471	2,965	2,520	2,743	2,940	3,113	----	----	791	1,013	1,063	1,063
Other.....	445	445	438	682	667	668	198	147	235	391	611	586
Total.....	11,811	11,762	11,349	11,653	11,972	12,182	13,665	11,391	11,844	13,203	13,177	13,263
Cherries:												
Pyrénées-Orientales.....	494	741	741	988	1,038	1,038	1,730	1,977	1,977	1,730	1,804	2,002
Hérault.....	49	49	99	222	235	247	371	371	198	1,297	1,297	1,297
Gard.....	3,707	3,707	2,916	2,471	2,718	2,891	----	----	3,744	3,805	3,830	3,830
Other.....	77	77	89	161	185	185	617	617	612	462	759	758
Total.....	4,327	4,574	3,845	3,842	4,176	4,361	2,718	2,965	6,531	7,294	7,690	7,887
Peaches:												
Pyrénées-Orientales.....	1,977	1,977	2,224	2,347	2,718	2,718	5,930	7,660	7,660	7,907	7,784	7,907
Hérault.....	1,087	1,137	1,236	1,705	1,779	1,853	25	25	148	556	544	544
Gard.....	2,965	3,954	5,140	6,795	8,401	10,131	----	----	556	618	741	741
Other.....	549	548	879	925	920	949	50	49	472	684	1,173	1,149
Total.....	6,578	7,616	9,479	11,772	13,818	15,651	6,005	7,734	8,836	9,765	10,242	10,341
PROVENCE-CÔTE D'AZUR-CORSICA												
Apricots:												
Bouches-du-Rhône.....	4,077	4,201	4,448	4,448	5,147	5,152	371	346	618	618	371	371
Corsica.....	99	136	25	136	170	173	25	25	25	25	25	25
Other.....	2,120	2,174	1,828	1,853	2,271	2,212	439	444	345	370	854	788
Total.....	6,296	6,511	6,400	6,437	7,588	7,537	835	815	988	1,013	1,250	1,184
Cherries:												
Bouches-du-Rhône.....	2,125	2,125	1,544	1,544	2,041	2,051	544	544	1,433	1,433	1,100	2,100
Corsica.....	74	74	74	49	54	62	371	371	371	371	371	371
Other.....	4,250	3,806	6,534	6,623	7,174	7,153	4,200	4,645	9,637	9,859	11,220	5,710
Total.....	6,449	6,005	8,142	8,216	9,269	9,266	5,115	5,560	11,441	11,663	12,691	8,181
Peaches:												
Bouches-du-Rhône.....	11,737	11,860	11,071	11,614	13,432	13,672	124	124	1,137	1,137	976	976
Corsica.....	494	618	741	865	1,100	1,112	371	371	494	494	494	494
Other.....	6,770	6,944	7,499	7,177	8,755	9,031	1,086	1,086	1,223	1,149	4,152	7,895
Total.....	19,001	19,422	19,311	19,656	23,287	23,815	1,581	1,581	2,854	2,780	5,622	9,365

Source: *Statistique Agricole Annuelle*.

France's total acreage in clingstone peaches currently breaks down as follows:

Region and Department	Acreage
Languedoc:	<i>Acres</i>
Pyénées-Orientales	988
Hérault	247
Gard	2,471
Other	20
Total	<u>3,726</u>
Provence-Côte d' Azur-Corsica	
Bouches-du-Rhône	121
Corsica	494
Other	10
Total	<u>625</u>
Rhône-Alpes	47
Other	91
Total France	<u>4,489</u>

Grower costs and income

The cost of establishing and operating a commercial orchard varies with the size of the orchard, commodity, locality, financing, and other factors. Relative size is smaller in Pyrénées-Orientales than in Hérault and Gard.

Agricultural credit is reasonable in both areas. Interest rates range from 3 percent on long-term credit for land purchase to 5 percent for short-term production credit loans. Current wage rates paid seasonal agricultural workers are a minimum of 60 cents per hour plus social charges. Fruit pickers are paid on an hourly basis rather than by piece work.

The costs of establishing a bearing peach orchard in Gard are reported to run \$400 per acre in planting and \$860 per acre in bringing the orchard into bearing. A breakdown of costs follows:

Item	Cost
	<i>Dollars</i>
	<i>per acre</i>
Soil analysis	9.80
Land preparation	52.90
Fertilizer application	28.50
Organic fertilizer	48.80
Chemical fertilizer	92.80
Soil conditioners	12.20
Layout and planting	48.80
Trees, 123 @\$0.86	105.80
Total	399.60

Source: *Le Pêcher*, Direction Departmental de l' Agriculture du Gard.

Historically, grower returns have been determined by the important fresh market, while processing has acted as a salvage outlet. Varieties more suitable for processing, particularly clingstone peaches, are now bringing a premium over other fruit in the processing outlet.

Cost of Bringing a Peach Orchard into Bearing

Item	First year	Second year	Third year	Fourth year
	<i>Dollars per acre</i>	<i>Dollars per acre</i>	<i>Dollars per acre</i>	<i>Dollars per acre</i>
Green manure	8.10	8.10	8.10	8.10
Pruning	8.10	20.30	28.50	40.70
Other	4.10	14.60	23.60	27.70
Labor	26.00	29.30	37.40	42.30
Manure (includes spreading) . .	19.50	19.50	29.30	34.20
Spraying	16.30	27.70	34.20	39.00
Irrigation	26.00	50.40	61.00	65.10
Thinning	—	—	4.10	16.30
Harvesting	—	—	16.30	65.10
Total	108.10	169.90	242.50	338.50

Source: *Le Pêcheur*, Direction Departemental de l' Agriculture du Gard.

Prices Paid by French Cannery for Fruit Delivered to Canning Plants

Commodity	1965	1966	1967	Preliminary 1968
	<i>Dollars per short ton</i>	<i>Dollars per short ton</i>	<i>Dollars per short ton</i>	<i>Dollars per short ton</i>
Apricots	201	237-255	138	129
Clingstone peaches	) 109)	) 137)	82.70-91.90	82.70-91.90
Freestone peaches	)	)	(¹)	54.70
Pears	164	155-137	137.80	64.30-79.00

¹ Not available.

Cultural practices

In the preparation of newly irrigated areas for peach production in Hérault and Gard, native scrub is first bulldozed away and suitable windbreaks (mainly native pine) are provided bordering the fields. The soil is dressed with calcium, potash, and phosphorus. Nitrogen is applied later. Trees are planted at 16 x 20 or 20 x 20 feet spacing. Most popular clingstone varieties are Vesuvio, Fortuna, Shasta, Vivian, Jeronimo, and Sudanell. The first originated in Italy, the last two are Spanish, and the remainder are from the United States. Rye grass is sowed between the rows in August or September as a cover crop to be plowed under in February or March. Two types of pruning are practiced, the classical method of forming a goblet shaped tree and that of forming three or four main branches as nearly vertical as possible. Trees are normally irrigated six to eight times during the season. In a bearing orchard irrigation generally continues after harvest until about mid-September. Heavy rains sometimes occur during harvest, and trees are treated to prevent brown rot.

Irrigation developments

Irrigation is utilized generally throughout the five major fruit production regions in France. Many systems have been in operation for hundreds of years.

In Pyrénées-Orientales the current system dates back to the time of Charlemagne. River water is carried by ancient canals and pumped into shallow furrows in the orchards. Construction of a water-storage dam is planned near Prades. It would open about 7,500 acres to fruit and vegetable production and also provide needed additional water to the present system. Date of construction has not been established.

In Hérault and Gard a large irrigation system is being developed in a narrow 125-mile stretch of land skirting the Mediterranean between the Rhône river and the foothills of the Massif Central Mountains. About one-third of this area, averaging 12½ miles in width, has been developed by the National Company for the Development of the Lower Rhône and Languedoc districts (CNARBRL) as part of the plan to revitalize the area through creation of water supplies for improved agricultural, industrial, and tourist facilities. CNARBRL was founded in Nîmes during 1955 through reorganization of the Planning Company for the Canals of the Right Bank of the Lower Rhône and Languedoc as a jointly financed company under governmental control.

The irrigation project is divided into eastern and western areas. The eastern area covers 320,000 acres stretching from the Rhône River to the Montpellier areas. Final plans provide for irrigation of 220,000 acres in four irrigation areas. Irrigation water is pumped from the Rhône north of Aude at the Dumont pumping station and flows westward 90 miles through the main canal. The water is repumped into the irrigation areas for distribution by underground pipes. Farmers use small portable or semiportable pipes and sprinklers for orchard irrigation. Three of the four irrigation districts are now in operation.

Irrigation water for the western area is to be supplied through use of three storage dams handling water from the Hérault, Orb, and Aude Rivers. The Avene Dam, with a capacity of 27,000 acre-feet in the upper valley of the Orb River, was completed in 1963. Actual irrigation covers 22,200 acres of a 74,000-acre irrigation district. Construction of the Salagou Dam was completed during 1968. The dam, with a capacity of 138,000 acre-feet, is expected to serve 99,000 acres in the Hérault Valley and base plain of the Hérault River. The Rieuberlou Dam is to be constructed on a small tributary of the Orb River. Final plans provide for irrigation of 148,000 acres in the western area. Approximately 22,000 acres are now equipped for irrigation.

Marketing

Methods of marketing fruit destined for canning are changing. The changes are most noticeable in the Hérault-Gard area where varieties specially suited for processing are being planted. Changes are more gradual in the older Pyrénées-Orientales area, where the earlier season will maintain major emphasis on production for the fresh market. Many producers in the latter area compare prices in fresh and cannery outlets before sale at harvest. Even here, increased plantings of clingstone peaches suitable only for use by canneries can be expected to encourage greater utilization of long-term processor contracts with growers.

Marketing may begin on the farm long before the fruit trees are able to bear fruit. In Hérault and Gard farmers contract with the cooperative cannery to deliver their total clingstone peach crop for the life of the orchard. Each season, farmers living near the plant deliver their own fruit packed in trucks or tractor-drawn wagons. Trucks contracted by the cannery make pickups in orchards farther from the plant.

The cooperative and a large independent cannery work together in moving the crops to market. Under an agreement reached during early 1968, the cooperative provides the independent cannery with fresh fruit for canning and also does some packing in its own plants for the independent. In return, the cooperative can market fruit under its own label through the international distribution channels maintained by the independent cannery.

Promotion programs for both generic and private-label canned fruits in syrup were conducted during the spring and fall of 1968. Plans call for a repeat program in the spring of 1969. Some individual firms conduct brand advertising for fruit products.

Processing

Plants

The eight canneries in Pyrénées-Orientales have capacities ranging from 2 to 13 tons. Most are old and incapable of expanding production substantially without initiating programs of plant modernization. Several cooperative canneries include fermentation and distillery operations housed in separate buildings on the premises. These facilities are utilized in dessert wine production after the canning season is completed. Only grapes are used in distillation. Two small cooperatives have recently merged and plan to begin construction of a modern cannery-distillery complex in 1969.

Five canneries with a planned total capacity of 220,000 tons of fruits and vegetables are located in the Hérault and Gard area. The plants are new, modern, well equipped, and seemingly efficient. They range in size from approximately 92,000 to 110,000 square feet of floor space. The three largest, two privately owned and one cooperative, have a planned final production capacity of 44,000 to 55,000 tons each.

A new cooperative cannery to serve Corsica will be opened 21 miles south of Bastia. Planned final capacity will be slightly smaller than that of the plants in the Hérault and Gard area. The plant will handle all fruits and vegetables, but the pack is expected to be largely clingstone peaches.

Processing costs

Processing costs vary with size of plant, equipment, and commodity canned. Labor costs are rising. The current minimum rate for unskilled workers is 60 cents per hour plus social charges equal to 50 percent of the wage rate, an increase of 15 percent from the pre-June 1968 minimum level of 52 cents per hour. Line workers receive 72 cents per hour. Wages are based on a 40-hour week, with a 25-percent differential for the first 8 hours of overtime, 50 percent for over 8 hours overtime, and double time for Sunday. Material costs are reportedly comparable to those found in other countries.

Canned fruit pack

Production of fruit canned in syrup has only recently become important in the French processed fruit industry. The total amount of fruit canned in syrup (including berries and chestnuts) increased from 490,000 cases in 1955 to 2 million during the 1967 season. Although 1968 production of canned peaches totaled only 340,000 cases, the government's encouragement of clingstone peach plantings and the shifting of the processing industry to a newly developing area is expected to shift a substantial portion of future packs to clingstone peaches.

The total pack of fruit compotes increased from 245,000 to 1,380,000 cases and that of jams and jellies from 2,350,000 to 2,900,000 cases. Production of water-packed fruits totaled 225,000 cases during 1967.

French Production of Canned Deciduous Fruit in Syrup

Item	1963	1964	1965	1966	1967	Preliminary 1968
	1,000 cases 24/2½	1,000 cases 24/2½	1,000 cases 24/2½	1,000 cases 24/2½	1,000 cases 24/2½	1,000 cases 24/2½
Apricots	227	53	207	110	230	190
Cherries	202	183	229	298	382	(1)
Fruit cocktail	30	12	31	13	82	(1)
Fruit salad	280	330	383	520	415	(1)
Peaches	298	242	265	264	321	340
Pears	195	160	161	269	322	(1)
Plums	522	179	761	311	206	440
Total	1,754	1,159	2,037	1,785	1,958	(1)

¹Not available.

Source: *Statistique Agricole* and Federation Nationale des Syndicate de Confitiers et de Conserveurs de Fruits.

Consumption and Trade

France is optimistic about its ability to become an important factor in the EC canned deciduous fruit market, and present plans anticipate that the European housewife of tomorrow will place more French canned fruits on her shopping menu. French production of most canned fruit items in syrup is expanding, and sufficient clingstone peach acreage has been planted to support a clingstone peach pack approaching 1,900,000 cases, equivalent 24/2½'s, by 1974. Additional plantings will be concentrated mainly in the Hérault and Gard areas and on Corsica.

France is a still net importer of canned deciduous fruit. During 1967, imports of all canned deciduous fruit totaled 630,200 cases, while exports totaled 56,100 cases. Steady growth is expected in the domestic market for canned fruit, but per capita consumption will remain well below levels in West Germany and Belgium for some time to come. Retail prices for canned peaches have been declining but are still relatively high. Even a doubling of the apparent 1965 per capita canned peach consumption of 0.4 pounds would place French consumption below that in other EC countries. Imports of Greek canned peaches have been increasing rapidly and may provide stiff competition in the domestic market in coming years.

Apparent Per Capita Consumption of Canned Fruit in EC Countries, 1962-1965

Country	1962	1963	1964	1965
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
West Germany	11.2	10.8	11.2	12.8
Belgium	15.4	13.2	9.0	(¹)
France	5.7	6.4	6.0	7.5
Netherlands	5.3	5.5	7.1	6.8
Italy	2.0	2.0	2.0	(¹)

¹ Not available.

Source: Centre National du Commerce Extérieur

Foreign trade is now tilted heavily toward imports. Imports of canned fruit have increased steadily and totaled 630,000 cases, equivalent 24/2½'s, in 1967. This trend is expected to reverse as French packs increase. Exports are now minor but can be expected to increase during the early 1970's. Exports of canned fruit in 1967 totaled 56,100 cases, of which peaches accounted for 2,800 cases.

As larger canned deciduous fruit packs develop, France can be expected to utilize her favored position¹ for exports to other countries within the EC. The principal canned deciduous fruit item imported by EC countries is peaches. EC imports of canned peaches totaled 4.2 million cases in calendar years 1966 and 1967. The principal import markets are West Germany, the Netherlands, and Belgium-Luxembourg. West Germany imported 3.2 million cases of peaches in both 1966 and 1967. Dutch imports totaled 452,000 cases in 1967 and those of Belgium-Luxembourg, 343,000 cases.

¹ Proximity to EC markets, common external tariff, and EC sugar-added levy imposed on imports from third countries. The EC sugar-added levy system is explained in "EC Sugar-Added Regulation for Processed Fruits and Vegetables," Foreign Agricultural Circular FCAN 2-68.

French Imports of Canned Fruit in Syrup¹

Country of origin	1961	1962	1963	1964	1965	1966	1967
	<i>1,000 cases equiv. 24/2½'s</i>	<i>1,000 cases equiv. 24/2½'s</i>	<i>1,000 cases equiv. 24/2½'s</i>	<i>1,000 cases equiv. 24/2½'s</i>	<i>1,000 cases equiv. 24/2½'s</i>	<i>1,000 cases equiv. 24/2½'s</i>	<i>1,000 cases equiv. 24/2½'s</i>
United States	1.3	5.1	8.6	48.2	63.3	98.8	170.4
Europe:							
Italy	.7	5.2	30.2	12.5	31.5	41.0	98.2
Netherlands	5.0	13.5	20.7	19.0	21.3	14.4	18.8
Spain	—	.5	35.3	—	—	3.2	10.2
Greece	—	—	—	3.0	4.4	143.4	272.0
Other	1.6	4.2	5.9	5.6	5.3	8.0	8.0
Total	7.3	23.4	92.1	40.1	62.5	210.0	407.2
Other countries:							
Algeria	6.0	5.9	6.6	4.5	3.5	—	—
Morocco	150.9	167.0	162.9	215.8	248.2	263.5	195.8
Tunisia	53.9	82.3	6.3	95.3	28.9	42.5	41.6
Other	8.1	15.7	26.4	16.4	27.9	21.7	46.1
Total	218.9	270.9	202.2	332.0	308.5	327.7	283.5
Grand total . . .	227.5	299.4	302.9	420.3	434.3	636.5	861.1

¹ Includes all fruits except pineapple.

French Imports of Canned Peaches and Nectarines

Country of origin	Imports	
	1966	1967
	<i>1,000 cases equiv. 24/2½'s</i>	<i>1,000 cases equiv. 24/2½'s</i>
Greece	65.1	117.3
United States	55.1	81.0
Italy	17.7	19.6
Australia	—	7.9
China	1.0	3.2
Other	1.1	1.8
Total	140.0	230.8

French Exports of Canned Peaches and Nectarines

Country of destination	Exports	
	1966	1967
	<i>1,000 cases equiv. 24/2½'s</i>	<i>1,000 cases equiv. 24/2½'s</i>
Réunion	—	1.2
Madagascar	.2	.2
Guadeloupe	—	.2
Martinique	.1	.2
Ivory Coast	(¹)	.1
Other	2.0	.9
Total	2.3	2.8

¹ Less than 50 cases.

French Exports of Canned Fruit in Syrup¹

Area of destination	1961	1962	1963	1964	1965	1966	1967
	<i>1,000 cases equiv. 24/2½'s</i>	<i>1,000 cases equiv. 24/2½'s</i>	<i>1,000 cases equiv. 24/2½'s</i>	<i>1,000 cases equiv. 24/2½'s</i>	<i>1,000 cases equiv. 24/2½'s</i>	<i>1,000 cases equiv. 24/2½'s</i>	<i>1,000 cases equiv. 24/2½'s</i>
European Community .	4.9	12.0	8.8	10.3	16.2	14.8	28.2
Franc Zone	67.9	47.3	23.3	25.2	20.6	22.2	21.8
Other countries	3.6	5.4	6.6	7.1	5.1	7.2	6.1
Total	76.4	64.7	38.7	42.6	41.9	44.2	56.1

¹ Includes all fruits except pineapple.

EC Imports of Canned Peaches

Country	1962	1963	1964	1965	1966	1967
	<i>1,000 cases 24/2½'s</i>	<i>1,000 cases 24/2½'s</i>	<i>1,000 cases 24/2½'s</i>	<i>1,000 cases 24/2½'s</i>	<i>1,000 cases 24/2½'s</i>	<i>1,000 cases 24/2½'s</i>
West Germany	3,396.4	3,264.3	3,232.9	4,022.4	3,233.5	3,181.2
Netherlands	320.9	352.1	422.7	523.4	521.5	452.2
Belgium-Luxembourg	263.5	298.4	336.9	335.3	357.1	343.0
France	(¹)	(¹)	(¹)	(¹)	140.0	230.8
Italy	(¹)	(¹)	(¹)	(¹)	13.2	23.9
Total	(¹)	(¹)	(¹)	(¹)	4,265.3	4,231.1

¹ Not available.

Common External EC Tariff Rates for Specified Canned Deciduous Fruits
as of January 1, 1969

Tariff No.	Item	Common external tariff
20.06	Fruit otherwise prepared or preserved, whether or not containing added sugar or spirit:	<i>Percent ad valorem</i>
B II	Not containing spirit, containing added sugar, in immediate containers of a net capacity of:	
a	More than 1 kg.	
	Peaches, pears and apricots:	
	(aa) Containing more than 13 percent sugar by weight.	¹ 22.6
	(bb) Other.	22.6
	Mixed fruit:	
	(aa) Mixtures in which none of the ingredients exceeds 50 percent of the total weight.	¹ ² 21.8
	(bb) Other.	¹ ² 22.4
b	Less than 1 kg.	
	Peaches, pears and apricots:	
	(aa) Containing more than 15 percent sugar by weight.	¹ 24.6
	(bb) Other.	24.6
	Mixed fruit:	
	(aa) Mixtures in which none of the ingredients exceeds 50 percent of the total weight.	¹ ² 23.2
	(bb) Other.	¹ ² 24.4

¹ Plus EC sugar-added levy.

² Kennedy Round concessions by EC are now in staying process. Final rates become effective Jan. 1, 1972. They are for containers of more than 1 kg.: (aa) mixtures in which none of the ingredients exceeds 50 percent of weight, 21 percent; (bb) other, 22 percent. For containers less than 1 kg.: (aa) mixtures in which none of the ingredients exceeds 50 percent by weight, 22 percent; (bb) other, 24 percent.