HISTORY OF THE PRUNE INDUSTRY IN FRANCE

by Christian AMBLARD
Comité Economique du Pruneau

1.- FROM THE INTRODUCTION OF THE "PRUNIER D'ENTE" IN FRANCE TO THE XVIIth CENTURY.

Prunes have been produced in South West France for generations, hence the famous "Pruneaux d'Agen". Legend has it that prunes date from the XIIth century: the prune trees are supposed to have been brought back by the Crusaders from the region of Damascus, on their return from Jerusalem. It is also thought that the Knights of the Temple were responsible for the spread of prune trees in the area. Temple sur Lot was frequently given as the heart of the prune production region in ancient texts and there is a "Commanderie" of Templars in the village. It was then said to have been improved and spread by the Cistercian monks from the abbey of Clairac, a village situated near the confluence of the Lot and the Garonne. How much truth is there in these legends?

It is pretty well established now, that the plum tree came from the Middle East, from the area south of the Caucasus situated between the Black Sea and the Caspian Sea (now Georgia, Armenia, Azerbaïdjan and the northern plateau of Iran). However the original varieties from which the Prunier d'Ente stems have not yet been found in these areas, possibly due to lack of serious research. On the other hand, plum pits dating back 2000 years have been found on an archaeological dig carried out by the Centre National de la Recherche Scientifique (C.N.R.S.) in 1993 and 1994 near the town of Agen. We might never know if those plums had been dried or not. This would be interesting to find out.

It is possible that prune trees were introduced in two stages. More than 2000 years ago the prunus had been already introduced; then more recently other varieties were brought in, from which it is most likely the Prunier d'Ente comes from. Two ways are likely to have been followed: the Arabic one, through the South Mediterranean region, and the Roman one, through the Balkans and Italy. The Crusade legend likely has been imagined because of the name of “Damascus Plum”.

Certain experts believe the theory that the variety d'ENTE was the result of a natural hybridisation or a mutation of the varieties that existed in south west France. The monks in Clairac during the XVIth century are thought to have discovered and worked on this hybrid and then launched the idea that grafting was necessary to reproduce its qualities correctly. The name d'Ente would appear to have come from the verb "ENTER" that means to graft in old French.

It is by no means certain that the name came from there. The prune plum is also referred to as "robe de sergent" (sergeant's coat) as it was a similar colour to that of the French gendarmes' uniform in the XVII/XVIIIth centuries. The prune has also been called the "prune datte" (date plum), later the "prune d'ante", the "Anthée", or the "prune danthe ". Some think that it got its name from its oblong shape that is similar to that of fruit of the date palm. The distortion of these different words and the confusion with the verb "ENTER" did the rest.

Up until the XVIth century prunes were dried in the sun. The variable climate in south west France, dry years and wet years, must have made this production very uncertain. It has been established that at the beginning of the XVth century, prunes were not yet dried in an oven although prunes had been dried for some time. Were the monks of Clairac responsible for the artificial dehydration technique and for applying it to d'Ente prunes? It is highly probable and one can imagine that the varieties brought back by the Crusaders and kept in the Knights of the Temple collection allowed the monks in neighbouring Clairac to succeed in their research that proved to be so important for the future.

2 - FROM THE XVIth TO THE XIXth CENTURY: THE DEVELOPMENT OF THE ORCHARD

From the XVIth to the XIXth century the principal production was in the area now called the Tarn et Garonne (Saint Antonin, Montauban, Auvillar), 100 kilometres east of Villeneuve sur Lot. Another variety of prune trees was grown, the "prunier de Saint Antonin" that produced a blue plum for drying but which was smaller than the prune d'Ente. In the XVIIth century the Agen area, the Garonne valley and the surrounding hills became big producers of Saint Antonin prunes. In the XVIIIth century the orchards spread into the hills in the zone between the Garonne and the Lot. The first organised prune markets appeared in certain villages, Puymirol for example, which shows the importance of this production for the local economy.

At the same time the d'Ente prune tree was developing in the Lot valley and in the surrounding hills from Clairac to Temple sur Lot. During the XIXth century the preference for better quality d'Ente prune caused the Saint Antonin to gradually disappear.

There is written evidence to show that, in the second half of the XVIth century, bread ovens were already being used to dry prunes. The technique of alternating sun and oven drying seems to have been used for several hundred years although the production was generally limited to family use.

The prune soon became an object of widespread trade and commerce thanks to its nutritional qualities and the facility with which it could be preserved and transported. In the XVIIth century only a small proportion of the production was used in France. The most important part of the production was exported via Bordeaux, a port on permanent link to England.

Exports grew after the Revocation of the Edict of Nantes by King Louis XIV in 1685. South West France had always had a large Protestant population. This royal decision obliged the Protestant population to leave the country. So prune consumers spread all over Europe. Many expatriate families started trading with their region of origin and developed the consumption of prunes and Bordeaux wines. The family ties were very strong with those who had stayed in France and still existed at the beginning of the XXth century. There was regular movement between France and Great Britain, the Netherlands, the Rhinelands and Prussia.

Prunes were sent from the Villeneuve area to the port of Agen in barrels marked "ORIGINE AGEN" hence the name "Pruneaux d'Agen" which has stayed. It was the same for

the wines of Bordeaux, the wines have kept the name of the port from which they were shipped.

The barrels of prunes were loaded in Agen onto flat bottomed boats called "gabarres" that went down the Garonne to Bordeaux to be transhipped onto ships exporting to other countries. We have kept trade documents, invoices and orders from that era on which barrels of prunes are mentioned as goods of trade.

In 1815 after the fall of the Napoleonic empire, the restoration of peace between neighbouring European countries, free trade and the dynamism of the early XIXth century gave rise to a considerable development in prune sales and therefore in production.

Prune tree growing developed all through the XIXth century. The "pruneau d'Agen" became famous all over the world. We have numerous examples from that era. It would appear that prunes were very well known in Russia. Leon Tolstoï describes the thoughts of his dying character in his novel "The death of Ivan Illitch" 1886, Chapter 10:

> *"He was offered prunes which reminded him of those he had eaten as a child, black and wrinkled with a special taste, prunes from Agen that made your mouth water even when there was only the stone left."*

In 1894 there were 5,000,000 bearing prune trees in the Lot & Garonne and 1,000,000 young trees. The surrounding departments the Gers, the Tarn & Garonne, the Lot, the Gironde and the Dordogne also produced prunes at that time and it would be a reasonable estimate that the hectarage in terms of modern orchards must have been more than 50,000 hectares at the end of the XIXth Century. The Lot & Garonne produced 56,000 metric tons of prunes by 1893. This level has never been achieved since.

So as to be able to supply customers regularly special prune drying ovens were developed during the XIXth century. Certain examples can be seen at the Prune Museum in Lafitte sur Lot. The trays shaped like portions of tart called "coufidou" were arranged in a circle and placed in the wood burning oven using different techniques (trolleys on wheels or reversible doors.)

3 - XIXth CENTURY - THE PRUNE TREE SPREADS BEYOND FRANCE

Among the most important consumers of prunes were the navy and the armies of several countries because of their convenience. It was the spectacular development of exchanges between different countries combined with the increasing movement of the armies gaining colonies in new countries that increased the demand for prunes.

Such success could only encourage competition. Serbia and Bosnia had grown plums since roman times but became important producers of prunes in the 1860's. In 1887 Serbia was exporting 41,300 tons. These were sent to western Europe and America via Austria and Germany to avoid the western countries embargo.

The d'Ente prune tree was introduced into Australia and California during this period and we are fully aware of the success that it has had in California. Louis and Pierre Pellier who were responsible for introducing the prune tree into California were originally from south west France and had gone to North America during the gold rush.

This flourishing era for the French production was brutally interrupted by the conjunction of several events:

- The new technical needs of the recent invention, the self binder, the indirect result of the phylloxera epidemic in 1876 which wrought havoc in the French vineyards caused the orchards planted in "joualles" to be pulled up. The "joualle" was an old method of planting which no longer exists. It meant that the prune trees were planted far apart, 10 to 12 meters between each row, other crops were then planted in the spaces between the trees. It was very often a row of vine that was planted in between the prune trees.

- The rapid growth of the production of prunes in the United States, a country that had been a market for French products up until then, plus the rapid growth of the central European production (Serbia, Bosnia, Herzegovina). The American production went from 2,000 tons of prunes in 1886 to 51,000 tons in 1899, 136,000 tons in 1919, to 204,000 tons in 1924. The prices on the international market were seriously affected.

- The First World War decimated the male population in the French countryside. The women were left on their own and the few men that were left had to abandon a certain amount of the harder jobs on the farm. Prune prices being so low, prune trees were more and more abandoned in addition to which the packers were no longer developing and gave less and less value to the production.

The orchard was not renewed and the production level fell to less than 2,000 tons per year. In 1942 the crop represented less than 200 tons.

The French production became uncertain and insufficient, the usual distribution circuits disappeared and the French packers started to import prunes from California. In the 1950's the French market consumed as many California prunes as Agen prunes.

At this time the entire production was sold by the growers on local markets. There was a regular weekly market in most of the main towns in the growing areas. The prune growers brought their best prunes in baskets and the rest of their production in long 50 kg white jute sacks. The packer would inspect the merchandise and grade the prunes using a "peson", a type of roman pocket scales with a fixed counterweight of 250 grams: multiplied by two, the number of prunes needed to swing the "peson" gave the grade.

Over the first half of the XXth century the preparation of prunes hardly changed compared to the previous century. The prunes were generally graded and stored then were selected and mixed. After which the prunes were packed into wooden crates that contained 12.5 kg. The prunes were flattened between two rubber rollers then packed tightly down in the crates using a special machine called a "paqueuse". The top layer was carefully arranged by hand by the "fleureuses". These were women that carefully arranged the prunes in circles like flowers, this was called "fleurer", fleur meaning flower in French.

To preserve the prunes certain packers used a technique called "manchonnage" that consisted of putting the dried fruit into a metal sleeve and heating to 120°C before packing and sealing, otherwise the most common method used was pasteurisation.

Grading the prunes was still relatively complicated before the international unit was established using the American method adapted to the number for 500 grams (33/44, 44/55, 66/66, etc.)

In 1890 the classification was as follows by metric pound (500 grams):

1. fretin (small fry):	more than 125
2. petite rame (small average size count)	120/125
3. rame ordinaire (ordinary avg size cnt)	110/115
4. belle rame (pretty avg size cnt)	100/105
5. rame supérieure 2ème	90/95
6. rame supérieure 1ère for exports or demi choix (half choice) in France	80/85
7. premier choix (first choice)	70/75
8. surchoix (overchoice)	60/65
9. impériales	50/55
10. impériales fleurs	40/45

In 1930 it was as follows:

1. petite rame (small average size count)	120/130
2. rame ordinaire (ordinary avg size cnt)	110/120
3. belle rame (pretty avg size count)	100/110
4. rame supérieure (superior avg size cnt)	90/95
5. choix (choice)	80/85
6. premier choix (first choice)	70/75
7. surchoix (overchoice)	60/65
8. impériales or nationales	50/55
9. impériales fleurs	40/45
10. impériales fleurs extra	36/38

4 - THE RENAISSANCE OF THE AGEN PRUNE SINCE 1950

After World War II, the temporary control of exchanges set up to help economic recovery revived French production. By selecting new varieties the orchard expanded rapidly and has never looked back.

During this post war period, Mr. Bernhard of the Institut National de la Recherche Agronomique (I.N.R.A.), riding his bicycle, visited the whole of the production area to build a collection of all the varieties of prunes that were to be found there. He classified them by numbers then studied them so as to select the best. Through these studies the clone number 707 is the base of most of the French plantings today. Other clones are also very widespread

like the 303 and the 626 for example. Mr. Bernhard's collection is still used by INRA in their work on the evolution of the d'Ente prune tree under Mr. René Renaud's responsibility.

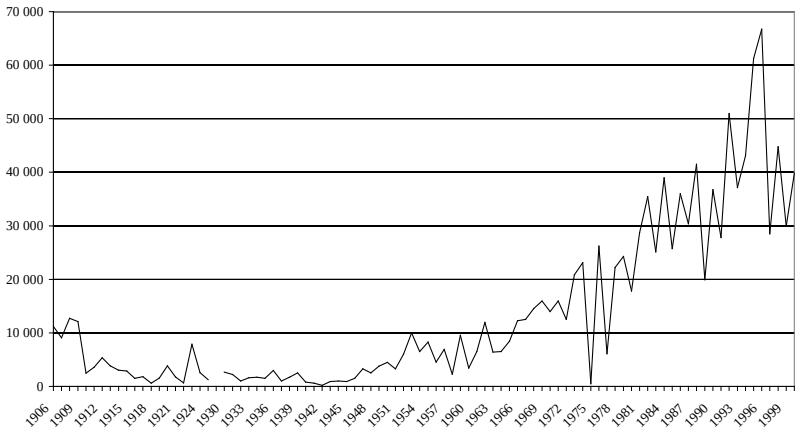
The G.E.D. was created in 1953. The G.E.D. is a union for the defence of the profession and research into the techniques of prune production. Through this union numerous co-operative dehydrators have been set up in the production area. The federation of these drying groups was the starting point from which the Comité Economique du Pruneau was created in 1963 followed by the creation of the B.I.P., an interprofessional organisation in collaboration with the Chambre Syndicale of prune packers.

The oven drying system lasted up until the mid nineteen fifties when the American tunnel system started to be used. This system is the principal method used in France today. Originally wood was used to heat the drying ovens, from 1950 to 1970 they were mainly oil fired but now propane gas is used and is the most economical.

At the same time, in the 1970's the conveyor belt tunnel technique appeared and represents 10% of tunnels in use. This figure is stationary.

As from the 1950's the revival of French production was launched with modern orchards usually planted 7m x 7m. The "joualles" have now completely disappeared.

Production française de pruneaux depuis 1906



With the creation and development of the European Common Market in the early 1960's European agriculture was given new drive. The important advertising campaign launched in 1964 by the B.I.P. for the French market has allowed sales and production to develop together. The French market represents two thirds of the sales of French prunes and the European Union countries represent 90% of exports.

As for processed products, the industrial dehydration techniques developed since the 1960's and more recently the pitting techniques in particular, give products that provide a new service for customers and therefore promote sales. At the same time these products are progressively changing the packers' role by transforming these companies into industrial units.

Today growers control directly more than 45% of the commercialisation of prunes through their packing co-operatives and another 30% up through their Bargaining

Associations. The fact that the producers control more than three quarters of the commercialisation combined with the European authorities' regulations, there has not been a prune crisis in France since 1974. These controlling organisations are all members of the Comité Economique whose role is to co-ordinate their activities.

The French prune orchard now covers 14,500 hectares, 2,200 farms are at least partially dependent on their income from the production of prunes. The French market has been revived and more than a third of the production is sold to European Union countries.