

# APIS



## Apicultural Information and Issues

From IFAS/University of Florida  
Department of Entomology and Nematology

March 1997

### Inside APIS:

#### Beekeeping in Southern France

A dynamic profession.  
Page 1.

#### Contemporary French Beekeeping

What the statistics show.  
Page 2.

#### Varroa Resistance to Fluvalinate in France

Update from Europe.  
Page 3.

#### Extension Apiculturist Activities in France

Read about them on the World Wide Web.

APIS Volume 15, Number 3  
ISSN 0889-3764

Copyright© M.T. Sanford "All Rights Reserved"

## Beekeeping in Southern France: A Professional Activity

I HAVE BEEN IN SOUTHERN FRANCE for two months. My stay is being sponsored by ADAPI (Association pour le Développement de l'Apiculture Provençale), Maison des Agriculteurs, 22 Ave. Henri Pontier 13626 France, Tel 04 42 17 15 00, fax 04 42 17 15 01. My proposal is to look at pollination practices by beekeepers and others both inside and outside of greenhouses as well as exchange ideas on beekeeping management. For the full text of the proposal, see <http://www.ifas.ufl.edu/~mts/apishtm/papers/sabbat.htm>.

The structure of ADAPI as it relates to other beekeeping associations is complex. I am helping the organization put together a web site that will provide detailed information about its mission, goals and relationships. In general, it is dedicated to helping its full-time commercial (called here "professional") beekeeper members in a number of ways.

ADAPI began in 1986; the current director is Mr. Pascal Jourdan. As a student at the Ecole supérieur d'Agriculture de Purpan-Toulouse, Mr. Jourdan did a detailed study of apiculture in the south of France. The results were reported in *L'Apiculture méditerranéenne, Une Profession Agricole Dynamique*, published in 1982 by the institute Technique de l'Apiculture et Office Pour l'Information et la Documentation en Apiculture (OPIDA).

Things have changed since the publication of Mr. Jourdan's volume. However, it is revealing to see some of the conclusions derived at that time from a 13-page survey of 92 beekeepers, each managing 130 or more colonies. The aim was to look at only full-time (professional) beekeepers in the region. The survey was inspired by an earlier work in 1979 done in the Paris Basin by Bernard Vaissiere, who subsequently received his doctoral degree at Texas A & M University and is now employed in pollination research by the French equivalent of USDA (INRA) at Montfavet near Avignon.

Mr. Jourdan's conclusions, based on his survey of professional beekeepers:

1. Many have come from city origins and most have relatively new operations using advanced technology.

*Continued next page*

## Professional Activity continued

2. Most have chosen the life of a full-time beekeeper because of a love of nature, passion for bees and search for independence.
3. The majority received their training as apprentices. Only 13 percent are offspring of commercial (professional) beekeepers.
4. In contrast to the relatively aged beekeepers in Dr. Vaissiere's study, Mr. Jourdan found a youthful population (average age 43.7 years) with 36 percent under age 40. My casual obser-

“

Beekeeping is a true professional agricultural activity in southern France.

”

vations of the current beekeeping population would agree with this conclusion today.

5. Apiculture is a family business; 95 percent of those questioned were married. In 24 percent of operations, married women defined beekeeping as their chief work.
6. The rate of persons entering the beekeeping profession has accelerated. From 1944 to 1968, an average of two operations per year were started; from 1968 to 1980, four per year was the norm.

According to Mr. Jourdan, in 1981, the average number of colonies per operation was 466; 40 percent of operations use 200 to 400 colonies. Some large operations over a thousand colonies were also reported, the largest being 1,300 hives. He also analyzed the labor input and the percentage of other commercial beekeeper activities, including manufacturing and marketing beauty products (31 percent), mead (60 percent), honey spice bread (22 percent) and confections (28 percent).

In conclusion, Mr. Jourdan said his analysis shows that beekeeping is a true professional agricultural activity in southern France. He based this on the number of colonies managed, labor involved and revenue derived from beekeeping operations. He further analyzed hive placement, feeding practices and colony mortality causes, as well as migratory activity. A large portion of the volume is given over to an in-depth analysis of costs and returns in beekeeping, an activity Mr. Jourdan carries on today with the ADAMI membership.

Subsequent to his study, Mr. Jourdan and others in the region developed the idea that professional beekeepers needed to band together to provide a stable source of assistance and information. Thus, ADAMI was born. Because of his previous work in the region, contact with the beekeeping community and extensive knowledge of bee management, it was only logical that Mr. Jourdan become the executive director. ■

---

## Contemporary Beekeeping in France

AFTER TRAVELING TO various meetings and having discussions with beekeepers and others, I can report that beekeeping appears to be flourishing in much of France, but particularly the south. A three-part report in the French journal *Abeilles & Fleurs* by Mr. Gilles Ratia of APISERVICES (see letter dated March 31, 1997), titled "Regards statistiques et cartographiques sur la France apicole de 1994," (Vol. 444, pp. 14 – 21; Vol. 445, pp. 21 – 25; Vol. 446, pp. 15 – 18; Feb. through Mar., 1996) shows that in 1994 there were 84,480 beekeepers in the country, which consisted of 98 Départments (provinces) with 145,739 apiaries, totaling 1,370,220 hives. The calculated average number of hives in an apiary

was nine, and the average beekeeper had 16 hives. Predictably, most beekeeping is concentrated in the eastern and southern part of the country.

The published information was gathered through the French veterinary services program called RESAN (National Epidemiological Surveillance Network) by Mr. Ratia. He has written software called "Gestapic" using FoxPro® to help manipulate and distribute the data as collected. The rationale is disease and pest surveillance; information is gathered through an obligatory yearly annual report that each beekeeper provides to the veterinary services and is supplemented by routine inspections. There are a relatively large number of bee inspectors in each de-

partment. Three types are listed by Mr. Ratia: assistants, specialists and specialist aides.

Observations made by Mr. Ratia in the articles include:

1. There is little explanation why there are fewer beekeepers along the seacoast than inland.
2. The interior of the country has many hives but few beekeepers, as exemplified by the Département called L'Indre. However, in the other Départments it is exactly the opposite.
3. Most bee inspectors are found in regions where there are the fewest professional beekeepers and the least number of hives, an apicultural oxymoron.

The gross figures presented here are not the full story, according to Mr. Ratia. They must be considered relative and will be more and more complete as the RESAN effort evolves. They are, however, a basis to build on and the program is developing rapidly. From 1993 to 1994, there was a 74 percent increase in departments participating in the program, a 95 percent increase in inspectors and a 165 percent increase in the number of hives opened for inspection.

Two types of visits are performed by inspectors in France. Those called “systematic” where inspectors make their rounds routinely and those where the beekeeper asks for assistance. As would be expected, most inspections take place in spring with another peak of activity in the fall; inspectors try not to visit the same hives in both seasons of the same year. More hives of amateurs are visited systematically than professionals. Mr. Ratia suggests this is because professionals are more apt to ask for visits by inspectors and inspectors are also likely to be somewhat more intimidated by professionals. This discrepancy will have the change, Mr. Ratia concludes, to more fully develop an adequate surveillance of the beekeeping industry.

In contrast with U.S. beekeeping inspectors, French “sanitary agents” concern themselves with a good many symptoms. They record everything from weak hives to drone layers to small, black bees (hairless black syndrome). Mr. Ratia observes that larger hives appear to suffer more social kinds of symptoms such as drone laying and absconding with or without honey in the hive. Analyzing the management by beekeepers is also part of the inspection process, including placement and physical state of hives, comb renewal procedure, requeening frequency, general hygiene and use of antibiotics.

Whether or not beekeepers are migratory is also a statistic reported to

the veterinary service. In 1994, some 11.19 percent of hives moved at least once for honey production and 1.75 percent for pollination. Fewer than one percent of these colonies moved more than twice. The majority of migration was in the south of France.

Finally, of course, treatment for Varroa is looked at by inspectors. In 1993, four times as many hives were not treated for Varroa than were. That is a total of one in ten colonies nationwide. The average number of treatments with Apistan® had diminished by 5.48 percent and the duration of treat-

ment by 1.1 percent. Treatment using Klartan® (a product similar to Mavrik®) also diminished by 21.19 percent and the duration by 13.34 percent. Klartan® is used more by professional beekeepers, Mr. Ratia says, but over all, beekeepers are using less and less “do-it-yourself” treatments. With reference to length of time Apistan® strips are left in a colony, Mr. Ratia reports that more than 38 percent of beekeepers keep to the eight-week schedule recommended on the label (AMM). However, a cadre do keep the strips in fifty-two weeks out of the year! ■

---

## Varroa Resistance to Fluvalinate in France

THE BIG NEWS HERE is that Varroa has become resistant to fluvalinate treatments. This was reported in my letters dated April 28 and March 20 and 23, 1997. The latest issue of the *Revue Française D'Apiculture* (No. 571, March 1997, pp. 115-117) contains an article by Jérôme Trouiller, University of Udine (Italy). According to Mr. Trouiller, data over the last three years of research attempts to shed some light on the appearance of resistance.

1. Spontaneous appearance of resistance is a rare phenomenon, the author states. The site of the resistance was first in Italy (probably Sicily). Data beginning in 1991 shows a step-by-step spread of re-

““

Spontaneous appearance of resistance is a rare phenomenon.

””

sistance from southern to northern Italy. The Alps appear to be an effective natural barrier (resistance has yet to appear in Switzerland or Austria); more recent information is that this no longer true for Switzerland. It is logical that the phenomenon has appeared in Slovenia and in southern France, where the Alps are not very high. The roles of beekeeper movement and climate have probably also affected the process. Spread of resistance has probably been enhanced by robbing and drifting adults and importing queens.

2. The author further states that Apistan® has not gone bad as a product; it still functions well (99 percent control) in areas where resistance has not appeared. He says there is no such thing as partial resistance by mites. Data show that in six different European countries where tests have been made, Varroa continues to be controlled. In Austria, where Apistan® has been used since 1989, the treatment is still functional, as it is in most of France. Use of Apistan® contrary to the labeled procedure could accelerate the resistance, he says. All beekeepers are urged to follow the

*Continued next page*

## Varroa Resistance continued

labeled instructions. In areas where resistance has not appeared, there is no reason to use alternative treatments.

3. The resistance so far is in the south and east of France, according to the article. It may have come by way of queens imported from Italy in the Maine-et-Loire region. In the Cote d'Or it could have resulted from migratory movement from the southeast. Principal migratory routes appear to be through the Garrone and Saone valleys. Many rural areas are not affected by migration (called transhumance here) and thus, it is thought that resistance will spread very slowly through the country. A map accompanying the article shows only 14 of 98 departments are affected so far. As I have been told in my meetings here with beekeepers, however, the south (Provence-Alpes-Cote d'Azur region) is very much affected. The article concludes that use of Klartan® (European relative of Mavrik® marketed in the United States) in or near areas of resistance is a huge risk. Some beekeepers in Italy have lost hundreds of colonies while using this material.

Treatments available in 1997 to beekeepers include Apistan® in areas where resistance has not appeared, according to the article. If resistance is suspected the veterinary service (CNEVA, see letter dated February 28, 1997) and the company called Swarm distributing Apistan® can be contacted to determine if it is present.

Beekeepers who migrate long distances also are urged not to use Apistan® or other fluvalinate formulations. The issue of what beekeepers should use instead, however, is not addressed in the article. As I have related in an earlier letter to the Apis-L list (March 20, 1997) this is leading to a situation where every beekeeper is developing his own treatment regimen. Finally, the article suggests that it is possible for resistance to disappear over time if use of fluvalinate is discontinued.

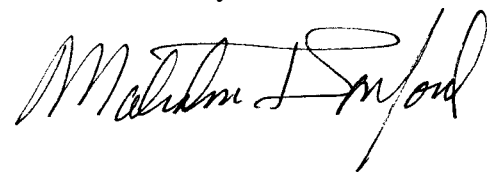
One alternative material now being sold and advertised heavily at the FNOSAD meeting (see letter dated March 23, 1997) is Apivar®, which is a plastic strip impregnated with an active material called amitraz. Some beekeepers may remember that a similar product called Miticur® was headed for the market in the United States but was abruptly

withdrawn in 1993. A company called Laboratoires Biové, Rue de Lorraine, 62510 Argues, tél 3 21 98 21 21, fax 3 21 88 51 95 is distributing this material (<http://ourworld.compuServe.com/homepages/APISERVICES>).

There was an animated discussion with the regulatory people of CNEVA concerning materials to use. Two are registered and have labels or AMMs: Apistan® and Apivar®. In a reprise of the CNEVA meeting in Sofia-Antipolis (see my letter of February 28), beekeepers asked questions about the efficacy of a wide variety of materials, including Apivar® and "extemporaneous treatments," and the possibility of getting many of the latter labeled in France.

Of special concern was the fact that treatments now used in Italy are not yet legal in France. Officials stated that efficacy and residue data had to be gathered before these treatments could be used. ■

Sincerely,



*APIS*, a monthly newsletter, is celebrating its 15th year of service to beekeepers. For subscription or other information, please write, phone, fax or e-mail.

**Malcolm T. Sanford**

**P.O. Box 110620, Building 970**

**University of Florida**

**Gainesville, FL 32611-0620**

Phone: (352) 392-1801, Ext. 143

Fax: (352) 392-0190

Internet: [MTS@GNV.IFAS.UFL.EDU](mailto:MTS@GNV.IFAS.UFL.EDU)

Back issues are available on the World Wide Web:

<http://gnv.ifas.ufl.edu/~entweb/apis/apis.htm>.

For an electronic subscription, send a subscribe message to:

[listserv@nervm.nerdc.ufl.edu](mailto:listserv@nervm.nerdc.ufl.edu).

The Cooperative Extension Service, Institute of Food and Agricultural Sciences, is an Equal Employment Opportunity - Affirmative Action Employer authorized to provide research, educational information and other services only to individuals and institutions that function without regard to race, color, sex, or national origin.