



Lifelong
Learning
Programme

BEEKEEPING EUROPEAN ENVIRONMENTAL SUSTAINABILITY

'BEES' PROJECT

LdV 2010-1-TR1-LEO05-16698

HANDBOOK ON BEEKEEPING



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Preface

The importance of bee role in plant propagation is well-known since antiquity. However, many people don't realize the vital role bees play in maintaining a balanced eco-system. According to experts, if bees were to become extinct then humanity would perish after just four years. "If the bee disappeared off the surface of the globe then man would only have four years of life left. No more bees, no more pollination, no more plants, no more animals, no more man," said Albert Einstein. Others would say four years is alarmist and that man would find other food sources, but the fact remains that the disappearance of bees is potentially devastating to agriculture and most plant life. Therefore, beekeeping projects are important related to environmental protection, sustainability and humanity.

Unfortunately, there has never been much prestige in beekeeping and beekeepers and there is a lack of accredited training possibilities for beekeeping in Europe. The LdV TOI project BEES intends to develop a curriculum for beekeeping in Europe and project also aims to finding solutions to problems related to bees. Temporary reports that bee populations are declining at rates of up to 80 % in areas of the U.S. and Europe should set alarm bells ringing and demand immediate action on behalf of environmental organizations. Experts are calling the worrying trend "colony collapse disorder" or CCD. Similarly, bee populations throughout Germany have simultaneously dropped 25% and up to 80% in some areas. Poland, Switzerland and Spain are reporting similar declines. Scientists from different countries should provide solutions for this dangerous trend.

In recent years a general change in bee behaviour, with difficulties in normal relationship to life and bearing loss, in

many countries at the same time, suggested that something terrible is about to happen. Nature will not be the same without bee pollination and agriculture could lose one of its oldest friends and partners. Nicotine neo-pesticides, considered before harmless, are now suspected to be responsible of some of the bee mortality. A change in human culture and science is necessary and studies on present bee emergency cases could be useful to avoid future terrible consequences on earth safety due to the human errors. In the production of vegetable and animal products, industry lost as a result of some of the old and re-tested techniques and methods have emerged and they should be used in conjunction with the new technological possibilities in this sector should have the qualifications of employees regarding the new gave birth to some demands. Defined by the EU member states in each of the common occupational profiles reflect different situations today. In this context, only certain types of plants or animals as defined profiles as well as animal or plant species, there are profiles of the general covering.

Bees have played a great role in landscape management, nature conservation, in regional economies and in rural culture in nearly all European countries. This type of projects will contribute to sustainability. Beyond the contribution of bees to landscape management and nature conservation beekeeping farming has a potential for the regional economy. In remote and rural areas beekeepers can make a considerable contribution to sustainable agricultural production. The regional economy could benefit by the emergence of new sources of income, e.g. from nature conservation, from funding for land. But to exploit this potential new skills are needed. It will help to Apicultural industry, also beekeeping is a much easier type of agricultural because it requires less tiring labor. Children could take responsibilities

with beekeeping. Women and children will benefit from bee products and also make a living by receiving income.

BEES is a Transfer of Innovation project aiming at further developing a module from the Leonardo da Vinci ENSA project on organic and biodynamic agriculture education. The main objective of the project is to create completely updated teaching materials on bee behaviours and relevant importance as indicators of agriculture sustainability. Biodiversity is directly linked to this approach. The main targets of the handbook are farmers' associations, environmental associations, agriculture professional schools, agriculture and veterinary medicine universities, bee keepers associations, policy makers, institutions at European, national and local level, elementary and secondary schools.

This handbook is one of the main products of BEES project for target groups and other readers.

Prof. Dr. Kemal ÇELİK
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