MEANS FOR INCREASING THE COMMODITY PRODUCTION IN THE ROMANIAN APIARIAN EXPLOITATIONS

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Abstract

Increasing the level of economic performances in the Romanian apiarian exploitations is based upon the improvement of the obtained results under the form of commercialized apiarian production compared to the resources consumed for obtained them. In this paper, the technical-economic means for improving the commodity production have been identified. These consist of improving the volume of consumed resources, optimizing the production processes and proper exploitation of the obtained results. For apiarian production a dual system of production formed from the one common to agricultural exploitations and the system of production specific to the bee family has been identified.

Key words: Apiarian economy, production system, commodity production

MATERIAL AND METHOD

The commodity production represents the part of the total apiarian production that ensures the exploitations income. Increasing the volume of the commodity production is the main objective of the beekeepers preoccupations for increasing the economic performances of the apiarian exploitations.

The research methodology utilized began with the ante calculation procedure of the commodity production which is determined as a difference between the total production, losses, internal consumptions and stocks (Ştefan, G., 2007).

The means for increasing the commodity production have been elaborated using the Delphi method at which experts in agrarian economy, apiarian technology, rural development and economic analysis participated.

RESULTS AND DISCUSSIONS

Increasing the level of economic performances of the apiarian exploitations is possible through the increase of the volume of commodity production. The main means of increasing the commodity production are: increasing the total production volume, reducing the losses, optimizing the internal consumptions, reducing the apiarian products stocks.

The means for increasing the total production volume

For understanding the means for increasing the total apiarian production volume is necessary understanding the means for obtaining this as a system. This is formed from the component "input" that is represented by resources and processes that determine the "outputs" from the system represented by the apiarian products. This system structure is applied both at the level of the apiarian exploitation as at the level of each bee family.

In principle, increasing the volume of apiarian products can be realized by increasing the volume of consumed resources. This phenomenon is not possible without the existence of efficient production processes. For example, if the bee family doesn't have a proper meliferous resource, the necessary works aren't realizes, these aren't organized properly, it doesn't hold proper hives or the beekeeper doesn't hold the technical knowledge to ensure all this demands, the results will be poor. On the other hand, if the bee family doesn't have a queen or the queen is inappropriate, the quantity of meliferous resource attracted (nectar and pollen collection) will be smaller and, for this reason, the quantity of apiarian products will be smaller.

Also, it can be noticed the fact that an inappropriate dosage of resources influences the quantity of products obtained. For example: the bee family holds appropriate meliferous resources and proper hives (capital) but the interventions in the bee family are too rare, too often or realized in a disorganized manner. The results will be in both cases unsatisfactory.

Therefore, increasing the total production volume is possible by ensuring a proper resources volume, dosing these in proper proportions and coordinating the internal processes of the bee family.

An important step in increasing performances in apiculture is represented by understanding the production system specific to apiculture as a dual system. On one hand, we recognize the production system of the apiarian exploitation similar to any agricultural exploitation in which the administration of resources for obtaining superior economic performances is necessary. On the other hand, we can notice the production system specific to the bee family with its specific internal processes. A part of the resources consumed by the bee family are common with that of the apiarian exploitation, but specific elements are outlined such as: bee family management in which the bee keeper tries to find a similarity between the exploitations` objectives and that particular to the bee family.

The proper management of the production system implies knowing its particularities:

1. The volume of the meliferous resource is variable according to the climatic conditions, the plants age, the dimension and floristic structure of the area in close proximity of the apiary. This variable is determining regarding the pollen and honey production, reason for which the elaboration of a set of indicators for the quantification of this variability and a set of instruments destined for prognosticating the dimension of the meliferous resource is necessary;
2. The variability of the meliferous resource is independent of the beekeepers efforts. It cannot be influenced by these because it is a part of the external climate of the apiarian exploitation;
3. The work force is characterized by a high degree of specialization enforced through practical experience. The theoretical training is a first stage in educating beekeepers, stage that must be followed by practice in the apiary preferably under the guidance of an experienced beekeeper because the rookie beekeeper must understand the principles at the basis of the processes that take place in a bee family. The bee families are characterized through a behavioral diversity rarely seen in other species;
4. Also, the tolerance at bee venom and the calm behavior in the apiary are indispensable characteristics of the work force in apiculture;
5. The apiarian exploitations capital contains a determining element – the bee family. The polyandry phenomenon specific to the bee family leads to the reduction of control over their productive potential. Even in specialized queens productions units' major difficulties are happening in their fecundation control. In the queens' production case at the apiary level, the selection of the bee families is just apparent because this is influenced by factors most of the times unknown to beekeepers;
6. Apiarian management, as it has been noted, comprises the specific component of the bee family with specific ways of organizing the processes, instruments of training the individuals of the bee family for obtaining a superior production, monitoring the level of production, coordinating the individuals or some of them to realize some activities to diversify the production etc.;
7. The apiarian information is comprised of the elements of the informational system specific to the economic units active in agriculture as of from elements which characterize the processes inside the bee family. Obtaining the information from inside the family implies repeated interventions which may disrupt its activity if they are realized improper and by unqualified personnel;
8. The processes specific to apiarian exploitations are structured on biological principles that must be rigorously known and researched as: the correlation between the bee family population and the level of production, the influence of the quantity of honey, of the hive volume, the volume of population and its structure, the microclimate conditions, the swarming predisposition etc. over the swarming threshold;
9. The results obtained from these processes are presented by the apiarian products: honey, wax, pollen etc. An efficient administration of these must start from the recognition of the fact that the bee family offers all the products if it has proper life conditions. Surely that the alternative of diversifying the

apiarian production isn't always economic and for this reason the beekeeper decides its specialization. Instead, the beekeeper must know that obtaining products that are not harvested because they don't allow increasing the profitability of the apiarian exploitation implied a resource consumption;

10. A component of the bee family results is expressed through a positive externality determined by the pollination of entomophilies plants. The resource consumption occasioned by this activity is difficult to determine because it is closely related with the nectar and pollen harvesting but the effect on the agrarian economy and on the environment is great.

These have been only the most obvious particularities of the apiarian production system but the growth objectives of the performances of apiarian exploitations and of sustaining the families effective as a vector for sustaining the natural environment can be realized through a thorough research in the bee family economy as a distinct area of research.

After identifying the apiarian production system particularities, the following total production volume improvement ways are highlighted:

- Increasing the volume of resources consumed:
  - The quantification of the meliferous resource and organizing the pastoral track by its dimensions;
  - The administration of energy and protein feeds with honey and pollen or their replacements;
  - Insuring a optimal number of interventions in the bee family;
  - Increasing the level of qualification of the work force;
  - Proper endowment of the exploitation with performing apiarian inventory and especially proper hives, frames and combs;
  - Utilizing selected queens but avoiding half-breeds to protect the genetic potential of local populations;
  - Insuring bee families health state through sufficient and correct treatments;
  - Organizing, in detail, the works in the apiary and, in general, all the specific activities of the apiarian exploitation;
  - Organizing a proper informational system by accessing modern information networks (ex: internet) but also by a detailed record of the bee families` development, registered phenomenon and determining causes.
  - The administration of production processes at bee family level:
  - Stimulating the level of development of bee families by reversing the honey frames positions of passing through the diaphragm;
  - Respecting the optimal administration periods for stimulation feeds with honey or pollen replacements;
  - Respecting the optimal moment for realizing all the apiarian works;
  - Maintaining the bee family at a level of development inferior to the swarming threshold;
  - Utilizing helping families;
  - Providing the space for the tip queen and the microclimate conditions (heat, humidity, hygiene);
  - Providing the development space;
  - Coordinating the bee family for obtaining products like pollen and propolis through collectors, queen honey by transfusing, apilarnil by introducing the frames for drone brood, wax by introducing the optimal number of frames with quality artificial combs etc.;
  - Reducing the duration of family intervention by increasing their efficiency and the rigorous organization of the component actions (Lazăr, Şt. (2002).
- The proper utilization of the products obtained from the bee family:
  - Harvesting all the products that the bee family is offering is their prices cover the supplementary costs;
  - Harvesting apiarian products at the optimal moment so that the family activity won't be slowed down but taking into account that during this the quality of products is kept better.
  - Respecting the harvesting moment of apiarian products to avoid a decrease in production or its quality;
  - Utilizing efficient harvesting instruments and methods like proper endowed extraction chambers, queen milk harvesting instruments, pollen and propolis collectors etc..

The proposed measures represent a part of the most important measures that must be taken by beekeepers for increasing the level of production. On the basis of the resources-processes-results relation other measures can be identified.

The reduction of the losses volume is also a way of increasing the level of the commodity production.

The losses in apiarian production are represented by the losses in the harvesting of apiarian products and their depositing.

The reduction of losses can be realized through:

- The correct organization of harvesting works to avoid steeling which determines the reduction of commodity production and creating a hostile environment for the development of bee families;
- Realizing the harvesting in the moment in which the honey is matured, stage in which all the quality conditions requested by the client are realized;
- Depositing the products in such a manner that to avoid their degradation etc.

The reduction of internal consumption consists in reducing the consumptions of bee families for insuring food in the cold season and also those destined to the beekeepers` family and the quotas for the employees.

The reduction for the bee family consumptions can be achieved by administering completion feeds with honey and pollen replacements which price is inferior to that of honey and pollen and by introducing in wintering of strong families which have relatively small consumptions. It is a well-known fact that a family with a double bee population will consume a quantity of honey less than double.

Another way of reducing the internal consumptions of bee families is represented by abundance, situation in which the bee family presents a normal behavior and doesn`t consume in excess like in a shortage.

Internal beekeepers` and employees consumptions can be optimized in such a manner that they can cover the necessary of apiarian products but not to produce waist.

The management of stocks implies the commercialization of apiarian products depending of the demand and offer and prices evolution.

The annual variability of the producers` honey price in the 19993-2007 period was of 7.24% www.faostat.ro In these conditions, the depositing of honey is unjustified because the depositing costs are, most times, superior to the probable increase of the price from one year to another. In consequence, if the beekeeper decides to sell the honey to purchasers, it is recommendable the commercialization of honey right after its harvesting to ensure the available cash and the reduction of post-production expenses.

In case that the apiarian production is sold to the final consumer through direct sales than the flow of sold goods will be correlated with the demand and the price evolution.

CONCLUSIONS

The identification of means of increasing the technical-economic results of apiarian exploitations holds as a base understanding the apiarian production system as a dual system composed from the production system specific to the apiarian exploitation in general and the production system specific to the bee family.

The means of increasing the level of commodity production consists of increasing the inputs volume and their proper administration, the production processes optimization at bee family and exploitation level and also the fructification of the obtained results.

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