

EVALUATION

N 2445/01 787 01

Production of hazelnuts

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Contractor

This evaluation was given according to the Swiss organization for developing and corporation –Interco operation in Bern-Switzerland. The content of evaluation is trustful and cannot be given to the third person without permission of contractor

The aim

The point of visit was inspection of five hazelnut plantations in Kosova and this results of preparation of an evaluation upon possibility of ecologic production of hazelnuts in the future according to the decision (EWG) Nr.2092/91

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1. Agenda

- 19.10.2001 The flight Samsun-Istambul-Prishtina and the meeting at the airport with the Besim Mulliqi {translator}
Discussion with the Mr. Lionel Giron {leader of Interoperation Swiss Project for Hort.Prom.} in Prishtina and introduction of visit's program
- 20.10.2001 The visit of hazelnut plantation in Irzniq in association with Mr. Bujgeose Degan, Mrs. Kitha Morris (English engineer of agriculture), Mrs. Nora Efendija Gola (counselor of Interco operation)
- 21.10.2001 The visit in the two hazelnuts plantations in Klina and Rakos in association of authorized person of cooperative 'AgroKlina' and 'Istok' and Mr., Lionel Giron and Mr. Luan Hoti {Interco. Engineer of Agriculture}
- 22.10.2001 The plantation in Ferizaj and Viti in association of the authorized person of cooperative in Orlan and Mr. Kitha Morris
- 23.10.2001 Evaluation of project in front of Mr. Efendija Gola, Mr. Kith Morris and Mr. Lionel Giron

The return in Turkey

2. General description

2.1. Brief description of the project

In the corporation with Swiss organization for development and corporation and development in Bern 'Intercooperation Swiss Project for Hort.Prom.' with residence in Kosova cares for a project of recultivation of many unuseful plantations of hazelnuts

2.2. Production units

General description

All the five hazelnuts plantations altogether include 205 h. Five of them are property of the state, one of them is in cooperative private property 'Agromorava'. Plantations are 13-15 years old. None of plantations is administrated during the last 10-12 years. For administration of plantation now exists interest from some corporations, which have survived during the war period. With this can be taken out the possibility of administration of ecological plantation,

In cooperative are employed 30-1000 cooperators. An advice for cultivation comes from Agriculture engineers employed in cooperatives. In following table are presented all the visited plantations and also are included all the long and short terms notes

Place	Property	Interested organization	Ha	The evaluated quantity of gathering in t.		
				2001	2002	2003
Viti	Corp. Agromorava	CoorporationAgromorava	50	50	100	125
Ferizaj	National	Cop. Orlanc	40	40	80	100
Irznig	National	Cop. Deqan	40	40	80	100
Klina	National	Cop. Agroklina	45	40	80	110
Rakos	National	Cop. Istog	30	15	30	45
Result			205	185	370	480

The state of hazelnut culture

It's cultivated only one kind *Corylus avellana* with sorts Istra, Roma, Bohol, Bandus, Trapizon, Avelina, Apoldo, Giecelski, Daviana, Bolxiero and Holl
The cultures in each plantation differ from each other mainly from the way of systematization of system, of cultivation of health state. The most important parameters are presented in the following table:

Place	The stage of uncultivation	The distance of plants	Damagers	Damages of dryness
Viti	10 years	4 x 6m	Xyleb.di.ban.nuc.	20%
Ferizaj	12 years	2	Nectria galligena	60%
Irznig	10 years	2.7 x 6m	Xyleb.di.ban.nuc.	40%
Rakos	13 years	2.5 x 6m	Nectria galligena	80%
Klina	5 years	4 x 6m	Nectria galligena	20%

Influent external factors

Plantations in surrounded fields are administrated convensionaly. The use of pesticides is rare in the entire region; there are cultivated corn, cearales, fruits and vegetables. The keeping of animals is extended.

3.Recomendation

Referring to the decision (EWG)2092/91 are given these recommendation:

3.1.Analyses

For the starting of ecological refinement should be taken measures composed analyses of soil, value of PH and radioactivity

3.2.The measures of care

3.2.1.Soil refinement

For systematization of bad drugs and improvement of soil structure it's recommended a refinement in autumn with disk harrow. After finishing the cut (of grass or crop) the soil should be digged in the middle of each plant

3.2.2.The crop

For fighting of damagers and for growing up production from plantations should be cut all the dry part and be taken out from the plantation. In autumn respectively in spring should cut all the left sprays on the soil surface.

3.2.3.The sown

To reach a growing production is suggested an additional rewoven of unuseful systems as exists in plantations in Rakos.It should saw local sorts of resistible towards summer dryness and demages. The plants vegetative multiplication from the resistible hazelnuts is a benefit possibly of a healthy plant. The distance of plants are 2,5x6m.The cultivation plan is seen as follows

The first year (Autumn)	The sown of two seedlings in the plant hole 0,6mx0,6. The two seedlings have the hole distance at about 30cm and this means that it's located approximately 15cm from the edge of the hole (- o - - o - ; 15 cm + 30 cm + 15 cm)
Second year	The sidings are cut in march in the equaled distance with the soil. In may there is another and of one of the sidings should be left
Third year	In March the seedlings are cut 70cm on out leafbud. In autumn, all of them have to be cut.
Fourth year	In March all the main and aside shots are cut 60cm on one of the outside leafbud. 2-3 new aside left shoots are cut till the earth. (Formulation of the first floor). In autumn two new shoots tie with with main hoots. All the others should be cut
Fifth year	In March it's formed second floor (second level) of main slot and two other outside slots, which are cut for 60cm. In autumn 2-3 new slots tie with these aside slots all the others be cut

3.2.4.Irrigation

During June and July it's very dry so irrigation is advisable. If there isn't Brie irrigation the capillarity should be interrupted through the dish.

3.2.5.Fertilization

For the beginning it's recommended a detailed analyze of soil refinement of a plan fertilization

N-Fertilization	Fertilizer combination of stable and hazelnut peel. The fertilizer should be from economic extensive enterprises
	The basement of fertilization: The sown from suitable leguminous.
Fret. With lime	-For the low contents of PH it's recommended an unextingnished lime (Cao)

If the fertilization of plantation could be necessary, then it could be used the fertilizer from cattle's stables of distinct together with hazelnuts peels

3.2.The protection of plants

Xyleborus takes part to the plants sick parts. For this reason the removal of dry parts of the plant and the cut of the bushes are primary measures disease fighting, To continue damagers falling through Xyleber can follow the use of insecticides in June before realizing the ovum's from animals which according to the decision (EWG)2092791 it's permitted. For example Phyretrine upon the base of Crysanthemum cinerarifolium.

Against Balanimus rubrum the most efficient way is fertilization with ash, the wood treated chemically

3.2.7 .The adjustment of the grass

The adjustment of the grass can be done mechanically with inserting the played field in frames respectively of harvest preparations. Fertilized basement in autumn acts in the earth covered level, adjusting regularly all the time

3.3. Gathering

For gathering at the end of August field should be cleaned from drugs. After that hazelnuts should be shaken and gathered with hand. For separation of hazelnuts from the covered petals it's recommended a special machine. A dryness could be done through lying in a covered field

3.4. Refinement

An efficient refinement of hazelnuts includes following stages

- Separation of covered petals
- Classification according to the size
- Hazelnuts break
- Separation of hazelnuts peels

The production of hazelnuts according to the decision (EWG)2092/91 ordinary classifications is not permitted, so it's recommended the break to be done in a time before export

3.5. Storage

Storage spaces should be exposed exclusively to biological articles, each protection must be done through storage in the way of using chemical methods. Entering and exiting of hazelnuts should be documented on date and quantity.

3.6. Documentation

An important moment of production is to respect all the stages from cultivation till entering all the basic dates in the detailed documentation. The fulfillment of the EWG2093/91 are applied for forming of this documentation

- Field charts for all the plantations in which are noted the borders of neighbors fields and their methods of administration.
- The list of all cultivators
- The note's diary for plants sown
- Documentation of careless measures
- Gathering diary
- Refinement diary
- Storage diary
- Export documentation diary=notes

4.SUMMARY

The founded situation during inspection presents good premises for a better way of administration

In the three years period of time, which should start at the time of first gathering, we propose a plan of refinement reorganization, which contains the state of being alive of above mentioned recommendations. Reorganization could be developed at the some of five companies. It could be useful to refine a plan of reorganization, common exercises of the way of the ecological production and also necessary yearly inspection in contest of ecological control that can follow some time saving money.

The insurance of the separation machines. Classification machines is very important
The states of plantations offer a good possibility for production of good particular plants and to avoid new expensive import of young plants.

A not administration makes possible as it was documented an accounting of 3 years period of time of reorganization

5.Authorization