

THE RESHAPE OF TECHNOLOGICAL SEQUENCES IN GROW OF THE VINE THROUGH EUROPEAN SYSTEM OF QUALITY EUREPGAP

REMODELAREA SECVENȚELOR TEHNOLOGICE ÎN CULTURA VIȚEI DE VIE PRIN IMPLEMENTAREA SISTEMULUI EUROPEAN DE CALITATE EUREPGAP

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Abstract. *Food safety and the quality of agricultural products are essential conditions that a producer has to offer to consumers. Moreover, in order to have access to subsidies, quality standard conditions have to be complied with, environment protection, as well as ethical and social principles. EUREPGAP represents a normative document drafted by the European Working group of producers and traders of agro-alimentary products of Europe (EUREP - Euro-Retailer Produce Working Group). Complying with this normative document, suppliers of agricultural products and retailers can be sure that they correspond to the European legal requirements, which are very strict regarding the food safety, the health and welfare of workers and the protection of the environment.*

Key words: Eurepgap, technology, vine, grapevine varieties, quality system

Rezumat. *Siguranța alimentară și calitatea produselor agricole sunt condiții esențiale pe care un producător trebuie să le ofere consumatorilor. În plus, pentru a avea acces la subvenții, trebuie respectate condiții standard de calitate, de protecție a mediului înconjurător, precum și principiile etice și sociale. EUREPGAP reprezintă un document normativ elaborat de Grupul de lucru european al producătorilor și comercianților de produse agro-alimentare din Europa (EUREP - Euro-Retailer Produce Working Group). Respectând acest document normativ, furnizorii de produse agricole și vânzătorii cu amănuntul pot fi siguri că ei corespund cerințelor europene legale, exigente privind siguranța alimentului, sănătatea și bunăstarea lucrătorilor și protecția mediului ambiant.*

Cuvinte cheie: Eurepgap, tehnologie, viță de vie, struguri de masă, sistem de calitate

INTRODUCTION

Obtaining the EUREPGAP certification is made after having signed and enforced a specific protocol, with sections that have to be strictly respected, such as: performing registrations and the internal inspection; authentication of sorts; soil management; use of fertilizers; irrigations; protection of culture; post-crop treatment; saving residues; respect for the environment, welfare of workers.

Producers have to respect the 214 certification criteria, out of which 49 are the “Major” conformity requirements, 99 “Minor” conformity requirements and 66 “Recommendations”. For certification, these criteria have to be complied with as follows: 100% of the “Major” conformity requirements and no less than 95% of the “Minor” conformity requirements. The “Recommendations” are requirements suggested for the moment, but farmers are encouraged to respect them, as part of the management process of the agricultural exploitation, all these proving the traceability of the food chain.

In our country, the certificate entered the market last year and since then, the number of farmers who put into practice the EUREPGAP quality management system has increased, especially in the field of vegetable production.

The beneficiaries to whom the results are destined are the wine companies of Romania which will apply the innovative technology, private economic agents who will be interested in assimilating these modern technologies in order to increase their profit and enhance their position on the market and last but not least the consumer, who has in this way the certainty of a food product certifying its quality.

MATERIAL AND METHOD

The major aim of this paper is the present of stages for the of modernizing the technology of obtaining and valorizing table grapes by implementing the European quality standards (systems) (EUREPGAP), in order to ensure the traceability and the food safety for Romanian products.

By means of this certificate, the producer guarantees: the quality of agricultural production; the protection of the environment; the health and safety of agricultural workers. This certificate is not compulsory.

For reshape the technology of table grape production the main aspects to be followed are:

- the identification of the procedures and strategies for the integration and management of the production – processing – sale chain, with the purpose of improving its efficiency and its effectiveness in context oriented towards the market economy and the insurance of food safety and quality;
- the promotion of cooperation and stimulating measures for the increase of quality and long lasting management of the production – processing – sale chain, by the optimization of the relationships and information exchange among the partners;
- the identification, the stimulation and the integration of the level of consciousness on behalf of the consumer in what regards food safety.

The University of Agricultural Sciences and Veterinary Medicine of Iasi with her partner SCDVV Iasi are developed a project of traceability system in the viti-vinicol sector, correspondent to the two major stages of the table grape productions process, that is: grape production and valorification, storage, conditioning.

RESULTS AND DISCUSSIONS

The presence of a EUREPGAP certificate shows that within the entire food chain there is a diminished hygienic and production risk, that agricultural producers offer their production on the market at higher prices, that the entire work organization within the farm is subject to an independent check and to a single audit and that the farmer is ready to obtain safe and quality products. These certificates are granted in the field of fruit and vegetables, according to the European standard EN 45011/ISO 65.

The research works corresponding attaining the following specific stages:

- drafting the documentary study regarding the enforcement of traceability norms in the wine production by implementing the EUREPGAP European quality system.

- drafting the innovative technology of obtaining and valorizing table grapes by applying the conformity criteria of the EUREPGAP system.

- ensuring the primary traceability (supplier traceability) at the level of the vine producer by applying the technology specific to the EUREPGAP quality system in producing table grapes.

- ensuring the traceability at the level of the product processor (process traceability) by applying the EUREPGAP quality system in the field of harvesting and valorizing table grapes.

- certifying the traceability and increasing food safety by evaluating the fulfillment of EUREPGAP conformity criteria in producing and valorizing table grapes.

Within the SCDVV Iasi production unit, for parcels considered in the study the new technology will be applied, according to the conditions of contract.

To confirm the traceability of obtaining the product, the following specific documents will be filled in, according to the conditions of contract: the cadastral sheet and the inventory sheet, specifying: the owner, the location, the year of establishment, the direction of production, the planting distances, the management type, the density of the vineyard. These sheets are required to establish the authenticity of the vineyard soil. Then, the annual production file for each parcel is drafted, where the technological production stages are mentioned: the cutting system employed, the fruit load, the starting dates of main vegetation phenostages (debudding, blooming, ripeness of grapes and their maturity, falling of leaves), in order to establish the correlations between the respective phenostages and the necessity of applying the various interventions (fertilization, irrigation, phytosanitary treatments).

The file of applying treatments is another means in the process of certifying the traceability and it comprises: mentioning the fertilizing substances, applied herbicides or pesticides, the requirement of applying treatments (the pathogenic agent or the pest), the number of treatments, the date of applying each treatment, the surface on which it was applied, the product used (the trademark) and the

active substance, the supplier, the number of the packing batch, the concentration used and the quantity applied per hectare and the interval of days required until the harvesting of grapes. Also, the fulfillment of conformity criteria regarding the storage, the manipulation and the hygiene of fertilization and phytosanitary protection works will be monitored, by complying with the EUREPGAP conformity criteria.

The quality control of the water used in the technological process (irrigation, phytosanitary treatments, technological water) will be performed under the aspect of the origin and the chemical and microbiologic contents, eliminating the sources that may represent factors of infesting the wine production chain.

The harvest and transport of grapes will be carried out with the written consent of both parties involved (grape producer - processor). For each parcel, there will be specified the date of harvest, the sort, the quality of grapes, the means of harvesting and transport of grapes, the hygiene of the process, pointing out the quantity of grapes harvested per each transport and specifying other interventions applied during the transport of grapes. This information will be recorded twice, both by the producer and by the processor.

For drafting the harvesting file, which represents an important link of certifying traceability, determinations and analyses will be performed on the reception of grapes, inscribing on analysis bulletins the producer, the parcel, the sort, the quantity transported, the health and integrity status, the saccharine contents and the total acidity of grapes.

The file of technological operations for the valorization of grapes will comprise the specification of achieved parameters regarding: the rules of hygiene, the origin, the homogeneity of the product, its manipulation, conditioning, calibration and packaging. Monitoring the quality of adjuvants used in the valorization process will be carried out by requesting the suppliers to come up with quality certificates and by certifying only the use of products corresponding to the norms in force.

During the technological links of both production and valorization of table grapes, it will be monitored the compliance with conformity criteria regarding the welfare of workers and the safety of visitors, as well as those for environment protection.

The EUREPGAP analysis and certification is performed by an independent body and after granting the certificate, an external audit is carried out annually, in order to check if these conditions are respected. To receive an EUREPGAP certificate, a producer has to keep clear records for (at least) three months, three months before the registration to an accredited certification body, followed by relevant audits and inspections, including the inspection of the harvesting and packaging process.

In critical situations related to food products, discovering the source of contamination and the rapid reaction of withdrawing the product from the market have been, until recently, very difficult to achieve in due time.

Solving this problem, as well as the consumer's requirements to be informed about the history and the ingredients/processes used or not, in producing a food product, belong to the field of traceability.

CONCLUSIONS

In critical situations related to food products, discovering the source of contamination and the rapid reaction of withdrawing the product from the market have been, until recently, very difficult to achieve in due time. Solving this problem, as well as the consumer's requirements to be informed about the history and the ingredients/processes used or not, in producing a food product, belong to the field of traceability.

Consequently, introducing a traceability system in the production and valorization of table grapes, according to the EUREPGAP quality system in Romania represents a major activity, with beneficial effects on food safety, increasing especially the confidence of consumers in the quality of local products. At the same time, the products obtained (table grapes) within such a system can more easily find a market in the European Union, the income sources of producers thus increasing considerably.

The immediate results of this application are the following: modernizing production technologies of table grapes of Romania, according to the European quality system; promoting local and newly-created vine sorts at international level; optimized technologies of production leading to maintaining the sustainable stability of wine ecosystems and ensuring the protection of the environment; local partnership for promoting new concepts in viticulture; certifying the quality and safety of the food product (table grapes); human resources for the wine research and production.

REFERENCES

1. **Isaic-Maniu Al., Vodă V. Gh., 1997** - *Manualul calității*. Editura Economică, București.
2. **Juran J. M., 2000** - „*Planificarea calității*”, Editura „Teora”, București.
3. **Kélada J., 1990** - *La gestion intégrale de la qualité. Pour une qualité totale*. Edition Quafec, Quebec.
4. **Paraschivescu A. O., 2005** - *Ghidul Calității, Metode, Analize și Studii de Caz*. Editura Tehnopress, Iași.
5. **Scorei R., 1998** - *HACCP: Ghid practic pentru Industria Agro-Alimentara*. Editura Aius, Craiova.
6. **Trandafir Magdalena, Iosifescu M., Avram C., Văleanu M., 2005** - *Dicționar explicativ de calitate*. Ed. “Teora”, București.

7. ***, 2001 - *Codex Alimentarius Food Hygiene Basic Texts*. Food and Agricultural Organization of the United Nations, World Health Organization, Rome.
8. ***, 2001 - *Codex Alimentarius Food Hygiene Basic Texts*. Food and Agricultural Organization of the United Nations, World Health Organization, Rome.
9. www.eurep.org
10. www.eurepgap.org

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