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## THE ROLE OF HUMAN RESOURCES IN ACHIEVING COMPETITIVE AND ECONOMIC ADVANTAGE OF AN AGRICULTURAL ENTERPRISE

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**Abstract:** *Farming differs from other businesses because it has to do with the constraints imposed by nature. The Common agricultural policy CAP provides EU citizens with food security and guarantees that food is safe and produced in an ethical and sustainable way. Direct payments help to keep sustainable farming viable throughout the EU. It does this by supporting and stabilizing farmers' incomes, ensuring the longer-term economic viability of farms. In this paper, we will deal with Human Resource Management and how good management of human capital by an agricultural company can achieve a competitive advantage in the market. Through the analytical part and comparative analysis, we will discuss the standards and goals of the EU and the possibilities of our country to get closer to them. The way in which human resources are managed becomes a decisive factor in the competitiveness, development and survival of an agricultural enterprise. The methodology will be based on several objectives. Books and articles by domestic and foreign authors dealing with agriculture of the Republic of Serbia and EU member states will be analyzed. The comparative analysis will lead to results that will help the Republic of Serbia to reach standards and strategies that it will apply, which will be modeled on the standards of agricultural development of*

*EU countries, thus improving its work and seeing the disadvantages and advantages. In order to be able to reach conclusions based on that, which will be important for the further development of agriculture in the Republic of Serbia.*

**Keywords:** *human resources, agricultural management, competitive advantage, EU*

## 1. INTRODUCTION

Economic and political changes that have taken place in Serbia in recent decades, transition, globalization, uneven regional development of the country, all this requires a well-designed systemic approach in conceptualizing economic development strategies and creating a prosperous economy based on the principles of knowledge economy.

The agricultural sector is one of the important national opportunities for development, and the impact of these changes on agro-economic science and education is significant. Agriculture and food processing represent one of the most significant economic sectors in Serbia.

Having in mind available natural and human resources invested in this sector, it extensively contributes both to the social and economic development of the country. It is one of dominating economic sectors due to the number of employees for whom it provides employment for Serbian agricultural and food industry, encompassing agricultural production and food and beverage processing, employs 557,000 people and accounts for around 16.6% of national gross domestic product (GDP) (Ratković, 2/2015: 353-367).

More and more attention is paid to the functions of agro economists who have become managers of rural development, with the need to improve their education and acquire specific knowledge of technology, organization, management and economics of all aspects of rural development.

Hence the need for permanent innovation of professional knowledge of managers and the knowledge of all actors in the agricultural sector, through the establishment of a system of training, as one of the priorities of economic and social development (Tanasković, Vasović, Kostić, 2019: 7-36; 7-41) 6% of national gross domestic product (GDP).

Good management is a basic condition for starting a business, progressing in business and maintaining a position in the market after the company achieves certain success. Managers in an organization need to address the issue of efficiency and effectiveness of the business process.

Efficiency means doing work with a minimum of effort and cost, while effectiveness means performing tasks that contribute to the achievement of organizational goals such as quality service and customer satisfaction. Henry Mintzberg followed five CEOs in the U.S. and analyzed procedures and interviews. He concluded that managers perform three key types of roles while doing their jobs: • interpersonal roles, • information roles, • decision-making roles.

In other words, managers talk to people, gather and provide information and make decisions. Human resource management is an area of organizational science that deals

with the study of all aspects of employment in an organization. Not only does it represent a recognizable scientific discipline but at the same time an important business and management function in the organization. The function of human resource management consists of various activities, policies, practices and systems that influence the behavior, attitudes and performance of employees (Bogićević, 2017).

For farmers who want to hire workers, human resource management is a process of attracting and motivating employees. Farmers make decisions, coordinate and supervise the work on a daily basis.

Agriculture developed with the simultaneous cooperation of a large number of people and this had to be harmonized and controlled. The village elders took on the role of manager.

The merging of ownership and management stems from the conditions and needs of running family farms. When market agriculture develops, with representation and various forms of ownership, when the scope of activity exceeds the possibilities of the individual, there is a tendency, as in industry, to entrust management to special, trained personnel for that purpose.

The farm is an agricultural production unit, and management is a kind of combination of exploiting its production potential, organization, control of the execution of the business goal, ie all elements of management.

Management in agriculture is specific due to the way of production and consumption of food products. Because of all this, human resource management is much more complex than in other economic organizations.

Here comes the management of specific factors of production: such as land, livestock, genetic and human resources. The functions of human resources management in the organization include a large number of different activities aimed at different aspects of employment in the organization (Bogićević, 2017).

1. Analysis and design of jobs - the process of collecting relevant information about jobs and defining the knowledge, skills and abilities needed to perform a specific job and design jobs;

2. Human resource planning - a process in which, based on anticipated changes in the internal and external environment, human resource needs are predicted;

3. Recruitment of candidates - the process of attracting qualified candidates in such numbers that will allow the organization to choose the best to fill vacancies;

4. Selection of candidates - a process in which a choice is made between the registered candidates for a particular job and a decision is made on employment, ie rejection of candidates;

5. Employee training - a process aimed at changes in specific knowledge, abilities, skills, attitudes and / or behaviors aimed at improving the performance of employees in their workplace or in a related workplace;

6. Employee development - the process of creating learning opportunities to assist employees in their personal development and preparation for future job or career development requirements;

7. Evaluation of employee performance - a process in which the individual contribution of employees in achieving organizational goals in a defined period of time is evaluated;

8. Remuneration of employees - creation and administration of the System of direct (basic salaries and salaries based on performance) and indirect salaries of employees (protection programs, payment of leave and benefits)

9. Relations with employees - improving relations between the employer and employees through collective bargaining and compliance with legal regulations in the field of labor and labor relations,

10. Protection of health and safety of employees - through the improvement of working conditions, stress reduction programs, reduction of accidents at work, counseling.

The reputation of a company depends on the expertise and ability of its staff. In the agro-industrial companies of Serbia, it is necessary for the staff to be able to realize organizational, property, personnel management and technological restructuring, and to be ready to accept innovations.

The importance of experts who are capable of being actors in the process of transferring modern technology to agro-industrial companies and family farms is of special importance. Improvement and change of staff structure must be done on the basis of a plan that respects the scope of agricultural capacity, technical and technological level of production and the position of the company in the market.

The effect of constant progress of technology and fierce market competition is manifested as the need to increase the number of workers working in the information system and marketing (Vujičić, Ristić, Malešević, 2006).

The situation in Serbian agriculture and the possibility of approaching EU standards The National Rural Revival Program of Serbia is the result of cooperation between the Academic Board for Rural Affairs of the Serbian Academy of Sciences and Arts and the Cabinet of the Minister of Regional Development and thanks to which more than seven hundred new cooperatives have been founded so far.

This is only the first step, but not a sufficient condition for demographic revival and sustainable rural development (Nacionalni program za preporod sela Srbije - stanje, problemi i prioriteti održivog razvoja, 2020:5). All systemic obstacles should be removed after the establishment of cooperatives; the most important thing is their business sustainability.

State systemic support is needed for agricultural cooperatives and farms that join them. Rural and agricultural modernization is needed as well as good governance. Emptying the village is a global tendency, but it has chaotic and security-dangerous consequences in our country.

Therefore, it is high time to slow down, if not completely prevent the extinction of more than a thousand villages in the mountainous, southeastern and strategically important border areas of Serbia.

Population policy should be based on appropriate economic, agrarian, regional development and cultural policy significantly different from the previous one - which pushed young people, especially women, out of the countryside and agriculture.

Serbian villages are increasingly empty, older and depend on state support. Favors of industrialization and non-agricultural occupations have led to mass abandonment of villages. Over 94% of rural settlements have a negative rate of natural increase. There is less and less youth in the villages and more and more elderly population.

**Table 1:** Villages in Serbia with less than 50 inhabitants

Year of census	Serbia – north	Serbia – south
1948	5	12
1953	2	13
1961	2	12
1971	2	23
1981	2	69
1991	4	183
2002	5	354
2011	5	546

Sources: *Republican Bureau of Statistics (RSZ), 2013.*

According to demographic projections, we can expect that the number of inhabitants in Serbia will be about one million less than in 2011. Social reform of local rural institutions is needed, which would systematically support the revival of traditional rural self-government of rural local communities and farms.

Greater support is needed for rural schools, cultural centers, health clinics, but it is necessary to introduce human resource management because people are the most valuable capital in all areas, especially in agriculture.

Increasing attention is being paid to human resource management. By this term we mean a management activity that enables the provision, maintenance, development, adaptation, direction and use of human resources in accordance with the goals of the agricultural enterprise.

## 2. AIMS OF THE COMMON AGRICULTURAL POLICY

Launched in 1962, the EU's common agricultural policy (CAP) is a partnership between agriculture and society, and between Europe and its farmers.

It aims to: support farmers and improve agricultural productivity, ensuring a stable supply of affordable food; safeguard European Union farmers to make a reasonable living; help tackle climate change and the sustainable management of natural resources; maintain rural areas and landscapes across the EU; keep the rural economy alive by promoting jobs in farming, agro-foods industries and associated sectors. The CAP is a common policy for all EU countries.

It is managed and funded at European level from the resources of the EU's budget. Farming is unlike most other businesses, as the following special considerations apply:

despite the importance of food production, farmers' income is around 40% lower compared to non-agricultural income; agriculture depends more on the weather and the climate than many other sectors; there is an inevitable time gap between consumer demand and farmers being able to supply – growing more wheat or producing more milk inevitably takes time.

While being cost-effective, farmers should work in a sustainable and environmentally friendly manner, and maintain our soils and biodiversity. Business uncertainties and the environmental impact of farming justify the significant role that the public sector plays for our farmers.

The CAP takes action with: income support through direct payments ensures income stability, and remunerates farmers for environmentally friendly farming and delivering public goods not normally paid for by the markets, such as taking care of the countryside; market measures to deal with difficult market situations such as a sudden drop in demand due to a health scare, or a fall in prices as a result of a temporary oversupply on the market; rural development measures with national and regional programs to address the specific needs and challenges facing rural areas (European Commission, 2018, The common agricultural policy at a glance – The common agricultural policy supports farmers and ensures Europe's food security).

In 1989, the European Commission set up guidelines relating to the preparation of the countries of Central and Eastern Europe for membership of the Union, which were later integrated into the IPA program, namely:

- PHARE (Program of Community aid to the countries of Central and Eastern Europe).

Aid for investment and project management, administrative reform, economic and social cohesion of candidates

- ISPA (International Sleep Products Association). A program designed to build infrastructure for transportation, environmental protection;

- CARDS (Community Assistance for Reconstruction, Development and Stabilization).

This program concerns the period from 2000 to 2006 and was aimed at the countries of the Western Balkans, at the rebuilding of the region and the reduction of poverty, market reform, interregional cooperation, etc.

### **3. FAMILY FARMS IN SERBIA AND THE EU COMPARATIVE ANALYSIS**

Family farms are considered to be adaptable and durable because they are able to preserve structure, functionality and identity despite the fact that they are exposed to risks, numerous uncertainties that are typical for the agricultural sector. There are claims that family farms are more resilient than those run by large corporations. Family farms are better adapted to changes in technology, economic changes, social and political conditions. From an economic point of view, the advantage of family farms is that they use family members as workers, unlike corporations that employ other workers.

Certainly, those who work on family farms have a greater interest in maintaining the production process and a good end result. Family farms use different strategies to increase their adaptability and endurance. This farms provide a number of benefits to

society, such as ecosystem services, food and nutrition security, high-quality agricultural products, employment and family income.

**Table 2:** Farms by number of members and permanent employees on the farm

	Total	1-2 person	3-4	5-6	7 person and more	Average per household
Republic of Serbia	564 541	65,1	29,9	4,5	0,4	2,4
Serbia – North	157 103	73,9	23,2	2,5	0,4	2,2
Belgrade region	30 033	64,9	29,3	5,2	0,5	2,4
Region Vojvodina	127 070	76,0	21,8	1,9	0,4	2,1
Serbia South	407 438	61,8	32,5	5,3	0,4	2,4
Region Šumadija and West Serbia	242 636	61,1	33,0	5,5	0,4	2,5
Region East and South Serbia	164 802	62,7	31,9	5,1	0,3	2,4
Region Kosovo and Metohija	--	--	--	--	--	--

Sources: RZS, Survey 2018.

Family farms have the knowledge and habits to use agricultural land in such a way as to preserve ecological characteristics and adapt to local resources.

The knowledge of farmers in family farms is a cultural heritage for the whole society and has additional value for agriculture and the food sector by preserving the diversity of local races and methods of production. Not only for Serbia, but for the whole of Europe, it is important that family farms contribute to and enrich Europe's cultural heritage, food and food safety, as well as environmental sustainability.

The relatively low utilization of available labor force indicates that the agriculture of Serbia is dominated by labor-extensive type of agriculture, smallholdings, low-productivity agriculture, and that a significant part of farms are directed to additional income from non-agricultural sectors or other sources.

The number of persons engaged in agricultural work in Serbia in 2018 was 1,335,871, which is an average of 2.4 persons per farm (2.3 in 2012). In the structure of farms according to the number of persons engaged in agricultural work, a high share (65%) of farms where one to two persons were engaged in agriculture is observed (Table 2).

There are the most farms with one to two persons engaged in agricultural activity in the Region of Vojvodina (76% of the total number), which can be explained by the production structure of agriculture, which is dominated by production lines that are not labor-intensive, greater use of mechanization in labor operations in agriculture, but also higher employment of household members in this region in non-agricultural sectors.

In addition, the influence of the tradition of earlier economic independence of young families in the region of Vojvodina should not be neglected, and thus the formal, physical division of farms (not always economic), which has been stimulated by newer agricultural policy solutions over the last decade (Bogdanov, Babić, 2014:37).

There is still a high concentration of labor on family farms, and this is especially pronounced in Šumadija and western Serbia, where there are 3.9 people per household.

In these regions, this was mostly due to changes in the production structure of households that are increasingly abandoning crop production and turning to more profitable branches of economy such as fruit growing, vegetables, viticulture, which requires greater employment of virtually all able-bodied household members and seasonal labor.

The shortage of seasonal labor in recent years is one of the biggest problems in Serbian agriculture. It is becoming increasingly difficult to reach the season, and in practice, work in the fields and orchards is mostly done by people aged 50 to 70, while young people, regardless of their daily allowance, are generally uninterested in this type of work.

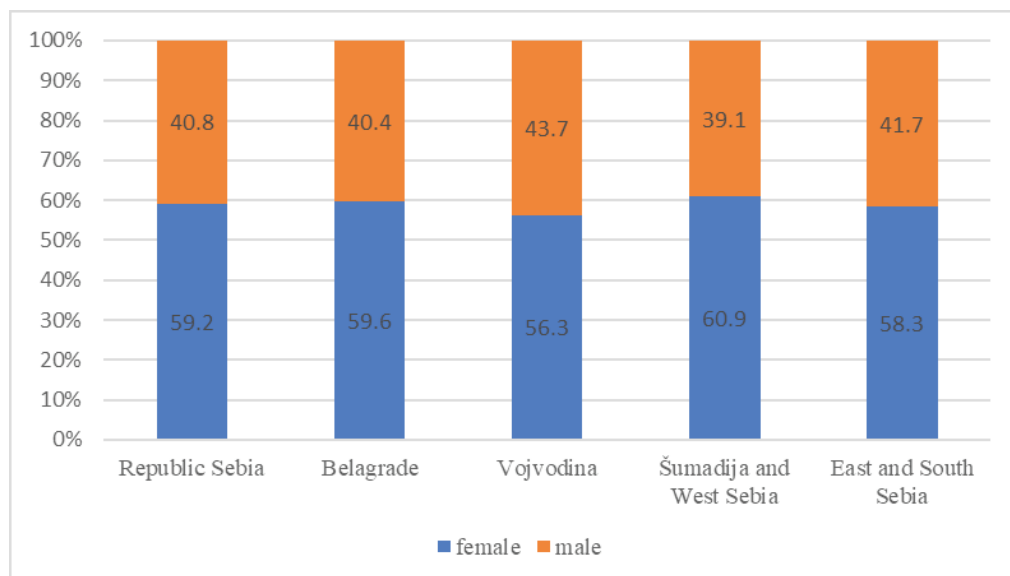
As mentioned earlier, the family labor force is the most important pillar of agriculture on family farms. Differences in the share of family labor in the total labor force on family farms are very small between the Belgrade region, the Region of Šumadija and Western Serbia and the Region of Eastern and Southern Serbia (56%, 59% and 58%). A lower share is recorded only in the Region of Vojvodina (49%).

The majority of this family workforce on farms is made up of women. At the level of the Republic of Serbia they make up 59.3% of the family workforce. Their share is somewhat smaller only in the Region of Vojvodina (56%).

The latest published data from Eurostat, the EU's statistical agency, indicate that 51,000 able-bodied people are moving out of Serbia every year, or an average of 4,250 a month.

This worrying outflow of the working age population is felt in all sectors of the economy, and is especially pronounced in agriculture, forestry and fisheries.

**Graph 1:** Labor force in agricultural holdings by sex in 2018 (Serbia)



Sources: RSZ author's calculation



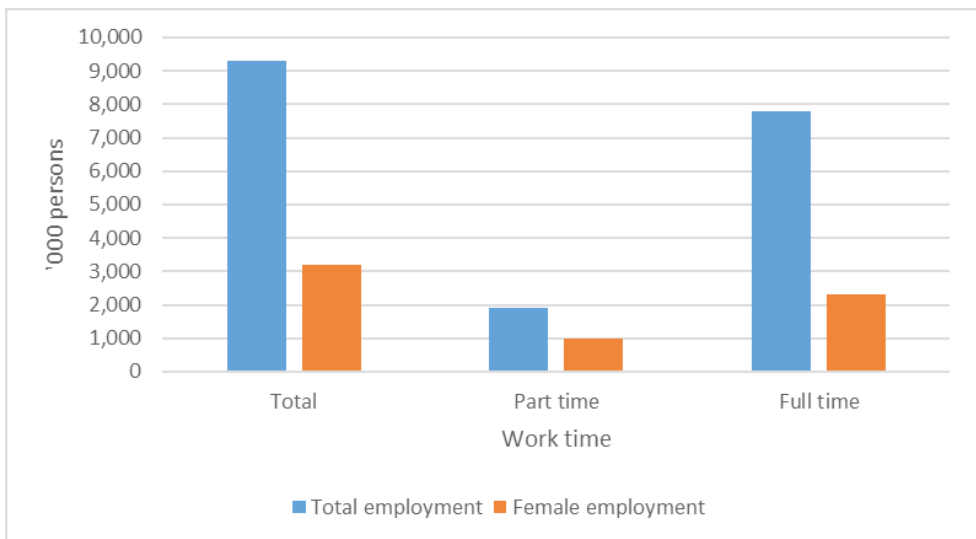
The data show that in the sector of agriculture, forestry and fisheries, more than half a million people worked in 2016 - 506,100, which was 18.6 percent of the total number of employees, and that number dropped to 372,800 or 15 percent of employees only two years later.

These data are the best indicator that agriculture, as well as the entire agricultural economy, pays the guild, primarily hasty and poorly done privatizations, as well as the overall attitude of the state towards agriculture.

The fact is that little or insufficient investment is made in agriculture, that most villages are without basic infrastructure, that young and qualified people are leaving rural areas in search of a better quality of life. - The production structure, mostly in the fruit and vegetable sectors, will continue to show the need for manual workers.

If something is not done, this will be the most critical point for the further development of overall agriculture, because, as things stand now, there are no indications of rejuvenation and since young people are leaving rural areas, the problem of lack of able-bodied population in rural areas is evident.

**Graph 2:** Total employment and employment of women taking into account working hours in the EU



Source: EUROSTAT, 2018

However, in recent years, significant trends of change have also been observed in the countries of southern Europe. Formal employment, full-time or part-time, predominantly in the food industry or textile production within the modern home industry, is increasingly being replaced by unpaid work on farms.

In Italy and Portugal, a growing number of women are also taking on the roles of farm owners, and in Spain, seasonal paid work is an increasingly important form of employment for women in rural areas. The trend of an increasing number of women taking over the management of farms is related to the trend of growing employment of men - farmers outside the farm.

The penetration of the service sector in rural areas also leads to increasing employment of women in the tertiary sector. In addition to changes in economic structures and labor markets in rural areas, certainly one of the key trends is due to the reduction of this category of population and leaving rural areas and going to cities, especially the younger population.

An integrative approach to rural development in the EU is aimed at strengthening local potentials and resources of the rural population, with coordinated activities to solve structural problems and lag behind in development through policy measures that are transferred from institutional to local communities.

This combination of bottom-up and top-down actions should allow for cumulative and synergistic effects in rural development and tackling rural poverty. In these policies, among others, women's resources play a key role (SeCons - UNDP, 2008). There are about 12 million farms in the European Union, and 44 million people are employed in the entire food supply chain in the EU.

Farmers are the first link in that food production chain. They are therefore very important strategic and economic actors and the EU cannot afford to lose them. Basic, instinctive agricultural skills are not learned from books, but are passed on from one generation to the next.

However, many young people no longer consider farming an attractive occupation and as a result of that the number of farmers is declining. In 2013, farmers under the age of 35 ran only 6% of farms, while 31% of farms were run by people over 65.

Farmers perform various tasks, from the production of food and non-food agricultural products to the management of rural assets, nature conservation and tourism. So, it can be said that agriculture has a multiple function.

Europe is both a major exporter and the world's largest importer of food, primarily from developing countries; the European agricultural sector uses safe, clean and environmentally friendly production methods and creates quality products that meet consumer requirements;

The EU agricultural sector serves rural communities. Its role is not only to produce food, but also to guarantee the survival of rural areas as places to live, work and visit.

The European Union wants to ensure that agriculture is sustainable and competitive. In order to contribute to the achievement of this goal, the European Union finances farmers who are market-oriented, ie towards production that satisfies consumer demand, and at the same time preserves nature, health and animal welfare.

The annual budget used by the European Union for this purpose is about 59 billion Euros, and implements it through the European Agricultural Guarantee Fund (EAGF)

and the European Agricultural Fund for Rural Development (EAFRD). The number of agricultural population in the world and the EU is in a significant constant decline, and productivity and production are on the rise.

This creates economic assumptions that rural areas do not require a large number of people to produce food and therefore tries to find a new role for them - to be not only a place where raw materials are obtained and where food is produced, but also places to enjoy, rest, live and work (there is a growing representation of rural tourism, around the world, even in our country).

States make rural areas more competitive for life in various ways, and among them the concept of the European Union stands out, which is characterized by high public investment and participatory approach. The share of agricultural employment in total employment in Serbia is extremely large compared to other European countries, showing that only in Romania the share of this sector employment in total employment is higher (27.8% in 2014), while in Hungary and Slovakia this share is higher single digit.

The share of industrial employment in Serbia is lower compared to other European countries, and the share of employment in the service sector is only slightly below the level recorded in the 27 countries of the European Union.

All branches of agriculture and industry had a declining trend in the absolute number of employees in the first decade of the 21<sup>st</sup> century. The increase in the share of employees in the service sector was the result of a decrease in employment in the other two observed sectors, and an increase in employment in the sectors of public administration, education, utilities and social services.

Although it is unrealistic to build the future of rural areas at the expense of productivity in agriculture, i.e. returning to the old rural model, where unproductive agriculture dominates, and the desire to employ as many people as possible on limited land resources is often not achievable, because productivity increases production, increasing agricultural production would lead to an increase in human demand in all segments of production and processing (food industry) which would increase economic activity and the economy would achieve progression.

## CONCLUSION

Various demographic indicators point to unfavorable demographic characteristics of the rural population, namely: on average older age of the population, more pronounced aging process and more unfavorable relationship between the working age population, children and the elderly.

Despite the extremely dynamic process of deagrarization and demographic depopulation of villages in Serbia, households in Serbia still have a relatively strong connection with agriculture and / or the countryside.

The largest part of the agricultural labor force on family farms in Serbia consists of family members or relatives (56.3%), which indicate a large amount of informal work

that is engaged in agriculture within family farms and with the help of relatives. Enlarged areas, modern and highly technically-technologically developed mechanization, digitalization, as well as information technologies have had the greatest impact on reducing the number of employees in agriculture.

It is realistic to expect that, with increasing specialization of production and technical-technological progress, this trend will be more pronounced in the future.

Modern digital technologies provide a far more detailed insight into agricultural processes than it has ever been possible before and they make it possible to reconcile different contradictory requirements.

Every segment of production - from land preparation, determination of management zones, through sowing, irrigation, nutrition and plant protection, to harvesting and post-harvest activities can be digitized and thus made more efficient.

Digital transformation is currently taking place in all areas of human activity, but its impact on agriculture can be crucial.

The principles of precision agriculture are already changing the way in which agricultural production is carried out.

In future there will survive those who can follow the demands of the market and who can respond to challenges such as population growth on the planet, climate change, limited natural resources, increased demand for safe food, technical and technological development, etc.

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