

SUMMARY

of the doctoral thesis entitled:

RESEARCH ON THE OPTIMIZATION OF THE SOIL WORKING SYSTEM FOR SUNFLOWER CULTIVATION IN BRĂILA COUNTY

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Today 's agriculture ours, it adapts the challenges of growth populations and the request in continue expansion for food, what What impose aDOPTION technology modern production. These innovations technological not only that OPTIMIZES the use resources natural, but and contribute to improvement quality products agricultural, thus that saddle meet BOTH internal needs, how much and export requirements by securing a subscription fair and sustainable food for ALL society.

Doctoral thesis entitled "**RESEARCH ON THE OPTIMIZATION OF THE SOIL WORKING SYSTEM FOR SUNFLOWER CULTURE IN BRAILA COUNTY**", includes two part What totals 7 chapters . The first part it is composed of 3 chapters What CONTAINING notions regarding agricultural systems, agricultural technology and technique, the support of agricultural production and the current state of research on sunflower culture , , and the second part it is composed of 4 chapters with own research .

CHAPTER I. NOTIONS REGARDING AGRICULTURAL SYSTEMS, TECHNOLOGY AND AGRICULTURAL TECHNIQUE addresses specialized aspects and represents Part I a thesis , again in the description of this chapter, it is introduced ELEMENTS technology to increase agricultural yield .

CHAPTER II, entitled " SUPPORT FOR AGRICULTURAL PRODUCTION " highlights that production vegetable The total and the report from products Agriculture main and secondary are influenced by four categories of **factors** : **ecological** (incl climate and the soil), **biological** (such as varieties and hybrids), **technological** (which include practicable Agriculture and fertilization) and **socio-economic**, emphasizing complexity interactions in agriculture .

In the 3rd **CHAPTER, THE CURRENT STAGE OF RESEARCH REGARDING SUNFLOWER CULTURE, the information researched up to now, regarding the researched topic** , is presented.

Part II of the thesis is detailed in 4 chapters, its purpose and objectives (CHAPTER IV), the analysis of the natural environment in which the research was carried out (CHAPTER V), the research materials and methods, the determinations made (CHAPTER VI) followed by (CHAPTER VII) called the results obtained, and finally general conclusions and recommendations.

The purpose of the research in the period 2019-2022 was to follow and analyze the influence of tillage systems (conventional and minimal) and the behavior of 3 sunflower hybrids cultivated in the south-eastern area of Romania, in the northern Bărăgan area (Brăila).

In order to achieve these objectives, the research was carried out in three stages as follows:

1. As a first stage, it consisted of the preliminary analysis of the area where the research was carried out, the analysis of the soil, climatic and vegetation factors. In this sense, materials were studied and climatic data from the culture area were analyzed and representative graphs were drawn up, in order to identify the hybrids

that lend themselves best to culture. A SWOT analysis was also prepared regarding the factors that determine sunflower cultivation in the northern Bărăganu area.

2. In the second stage, there was a comparative analysis of the cultivation technologies of the three sunflower hybrids grown on the land in Brăila county . For the proposed purpose, determinations were made in different stages of vegetation, under the same temperature conditions and the same precipitation regime.

3. The third stage was carried out in the laboratory to analyze the obtained seeds and determine the quality indices in order to establish in which culture technology the hybrids with the best indices were obtained

The result of these researches are intended to help farmers in making decisions to optimize production costs and to implement in their own farms the most suitable technologies for the cultivation areas.