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ECONOMIC EFFICIENCY OF TOMATO PRODUCTION IN A CLASSIC SYSTEM WITH CONVENTIONAL HEATING AND BASED ON THERMAL WATERS BALINT MARIA¹

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Abstract: Romania's geographical location allows vegetable production to be achieved with low production costs during the summer months, due to the favorable temperature. However, summer production, correlated with the abundance of products during this season, is not sufficient to economically support the rest of the time. Both the duration of sunshine and the average temperature are naturally lower in Romania compared to some adjacent countries with horticultural traditions.

Introduction

• Romania has a vast potential due to the presence of thermal waters, which, however, seem to be insufficiently used.



Average monthly values of the market prices of tomatoes, monthly production in a conventional system such <u>as-example</u> of a classic system-constant production system

Month	Average price (euro/ <u>tonne</u>)	Classic system <u>production</u> (t/ha)	Constant system <u>production</u> (t/ha)	Classic system production, value (euro)	Constant system production, value (euro)	Value differences (euro)
IV	1074,468	27	31	29010,64	33308,51	4297,872
V	946,8085	33	31	31244,68	29351,06	-1893,62
VI	957,4468	35	31	33510,64	29680,85	-3829,79
VII	691,4894	37	31	25585,11	21436,17	-4148,94
VIII	627,6596	36	31	22595,74	19457,45	-3138,3
IX	595,7447	34	31	20255,32	18468,09	-1787,23
Х	893,617	31	31	27702,13	27702,13	0
XI	1021,277	28	31	28595,74	31659,57	3063,83
XII	1148,936	15	31	17234,04	35617,02	18382,98
Total	7957,447			235734	246680,9	10946,81

Source: own calculation



Material and method

• The purpose of the paper is to carry out a comparative study to highlight the value differences that characterize the economic efficiency in the case of the classic tomato production system in greenhouses equipped with conventional heating and those that use a heating system based on thermal waters.

Results and discussions

• The analyzed greenhouse can be located in Arad County and is a multi-tunnel type, made up of modules. Each module has a width of 9.6m, a length of 100 ml, a minimum height of 4.5 m and a maximum of 9.5 m. The modules are arranged side by side, parallel, resulting in a compact space with the total area occupied depending on the number of modules used. [12]



Conclusions

Referring to the production value achieved in the classical system, we note in the period April-June a value increase due to the increase in production on a background characterized by a reduced variability of prices. The significant decrease in the market price of tomato production occurs in the months of July-September, a period that coincides with a

downward trajectory of the production value.