
**RESEARCH ON THE TEMPERATURES
IN 2010-2012, IN THE MUNICIPALITY OF TIMIȘOARA AND THEIR EFFECT
ON FOREST PLANTATIONS IN THE SCOPE OF RELIEF FROM
BECICHERECU MIC, TIMIȘ COUNTY**

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Abstract: *The air temperature is a key element that can influence the development of drought phenomenon which in turn arises leads to calamity many agricultural crops and forestry. To determine the causes of forest crop dry mass installed in the perimeter of the Becicherecu Small to analyze developments in the last three years the air temperature as a determining factor for the occurrence of droughts.*

Key words: *temperature, forest, seedlings, dry, dry*

INTRODUCTION

Timiș County and especially its lowlands, lying close to Timișoara and Lugoj is very poor in the presence of forest vegetation, so that was imposed and still impose afforestation of large areas of land as unsuitable for agriculture, situated in close proximity to these cities, but not only here but across the border with Hungary and Serbia. Based on this Special necessary, in 2010-2011, were developed several projects of afforestation, land unsuitable for agriculture, situated on administrative territorial jurisdiction more common among Becicherecu Buffet, near the City.

Afforestation work in the area of improvement began in fall 2011 and spring 2012 and completed. Perimeter of improvement, with an area of 14.3369 hectares and consists of two units Station (U.S.): U.S. 1 in area 11.0269 ha h-50PI regeneration composition with SI 25 25 Ctr and U.S. 2 with regeneration composition 50 Sc 15 SI 10 MJ (Fr) 25 Ctr. According to the minutes of vegetation percentage of successful entry into the plantation, at the perimeter, was 84% (84% in U.S. 1 and 83% in the U.S. 2).

Result of prolonged drought in the summer of 2012 the inventory of seedlings in the fall of 2012, by placing the 200 sq markets, in accordance with the technical forestry by counting viable seedlings showed a rate of only 11% in vegetation remaining trees are 89% as seedlings dry. It was found that although the percentage of success in the spring was 84% and the maintenance and care cultures were performed according to the project, the percentage of surviving seedlings was very low (11%).

To know in detail the causes calamity plantations and in order to find solutions as viable in the future to avoid such situations have initiated this research on the evolution of temperatures in the last three years taking into account the importance of this factor climate for drought phenomenon.

MATERIAL AND METHOD

Analysis of temperature evolution was based on meteorological observations in the past 3 years, the driest months of the year (May-October) months during which there is a danger of drying massive improvement area planted seedlings from Becicherecu Small consisting of two units' stationary as shown above.

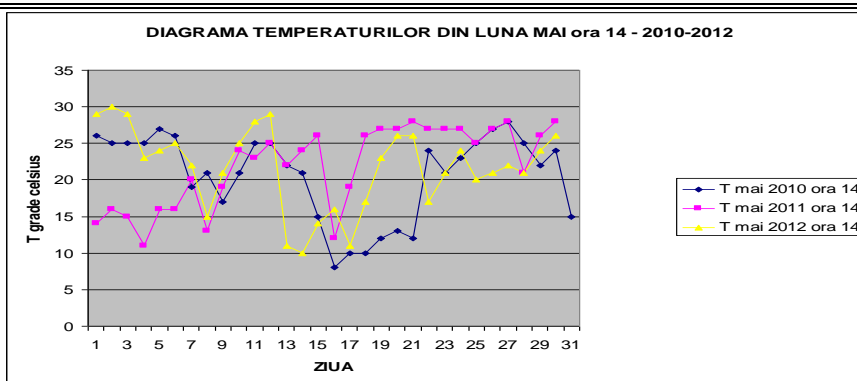


Figure 1 Diagram at temperatures in May, hour 14, period 2010-2012

Were used for data analysis (daily temperatures measured in hours 2:20 p.m. the day) from Timisoara Airport Meteorological Station, the station nearest breeding area under observation.

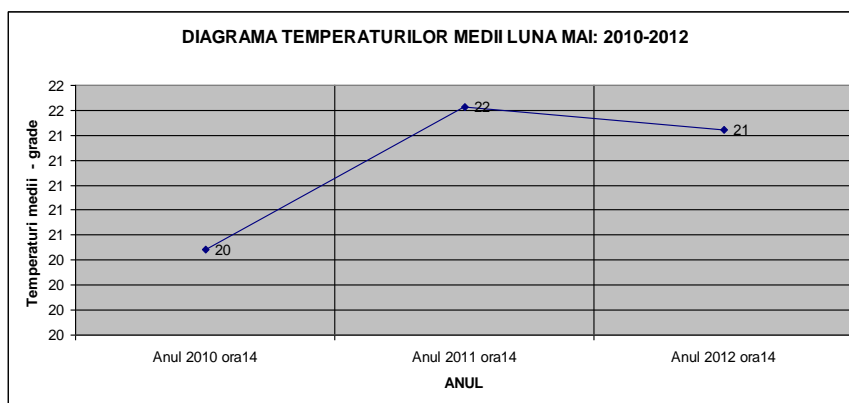


Figure 2 Diagram average temperatures in May, period -2010-2012

The data were used to obtain temperature charts. Diagrams obtained are very suggestive in terms of temperature development in the last three years and their influence on forest plantations under observation and other forest or agricultural crops.

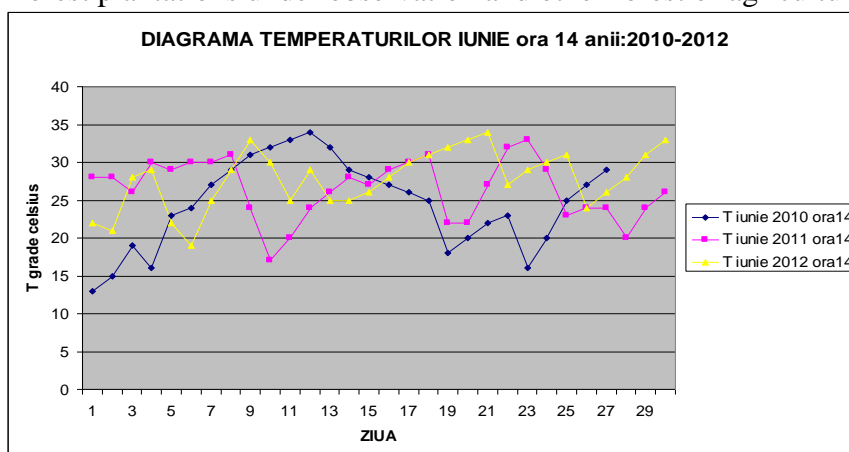


Figure 3 Diagram at temperatures in June, hour 14, period 14-2010-2012

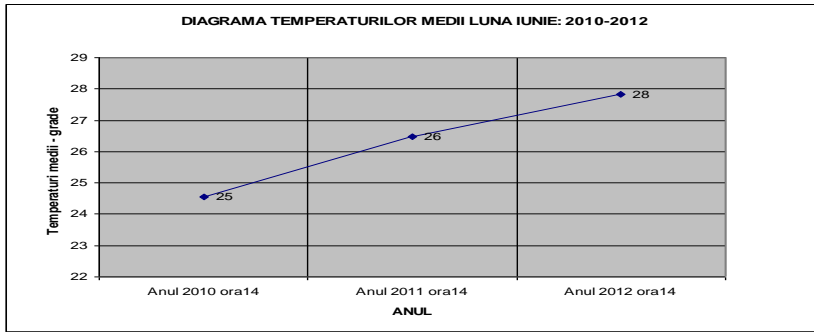


Figure 4 Diagram average temperatures in June, period -2010-2012

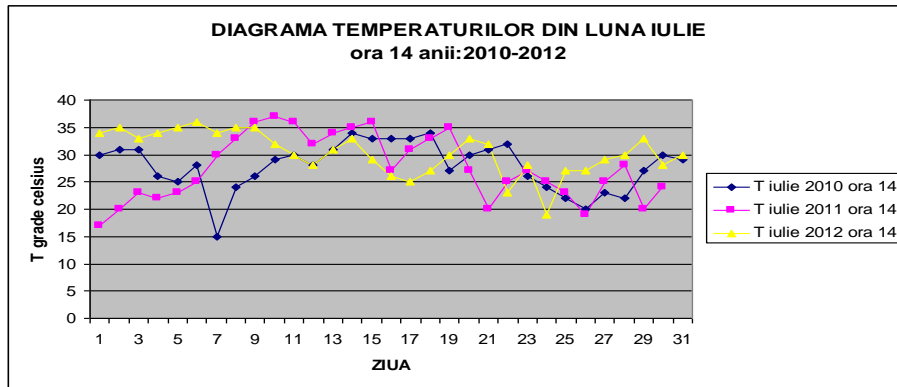


Figure 5 Diagram at temperatures in July, hour 14, period:2010-2012

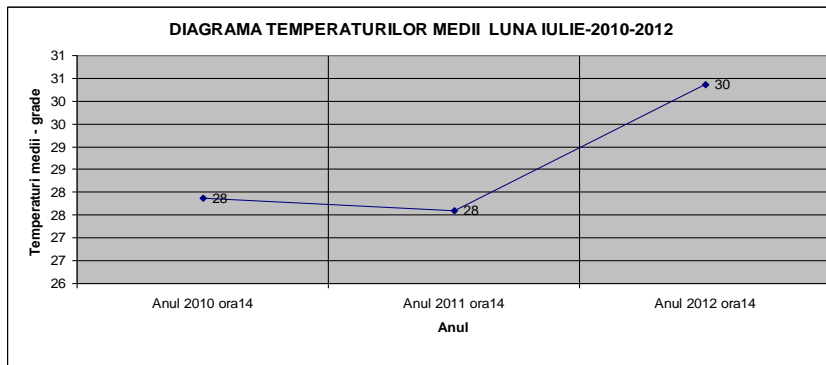


Figure 6 Diagram average temperatures in July, period -2010-2012

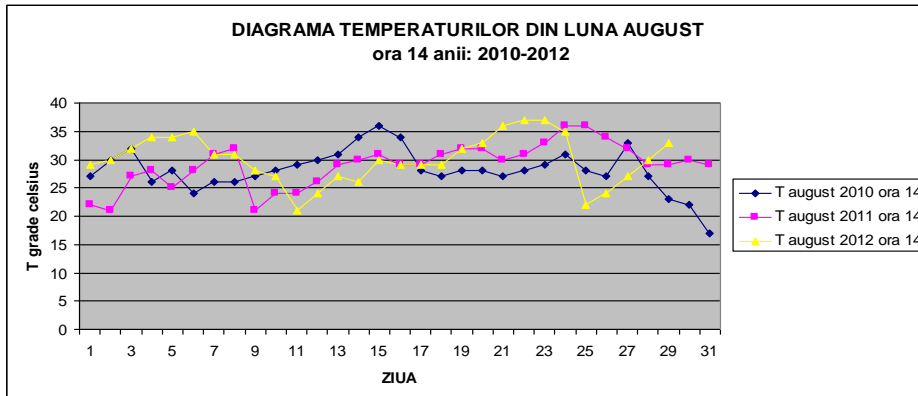


Figure 7 Diagram at temperatures in June, hour 14, period -2010-2012

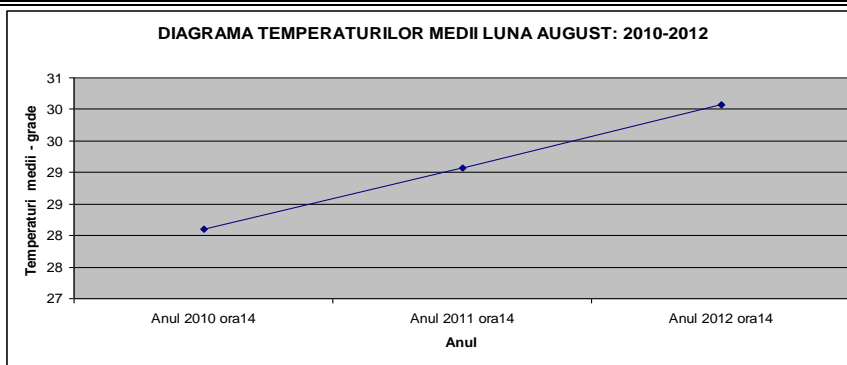


Figure 8 Diagram average temperatures in August, period -2010-2012

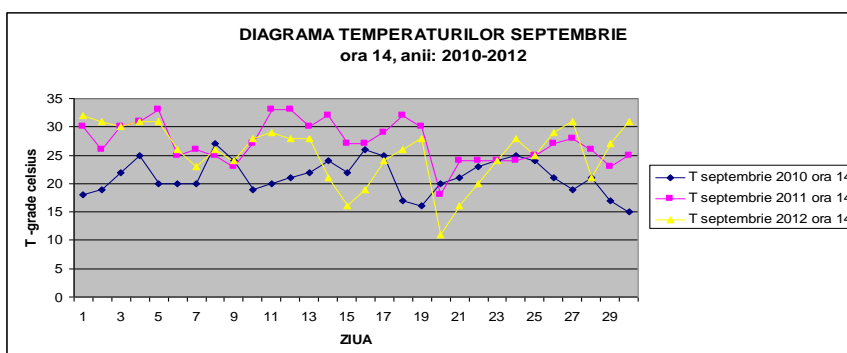


Figure 9 Diagram at temperatures in June, hour 14, period 14-2010-2012

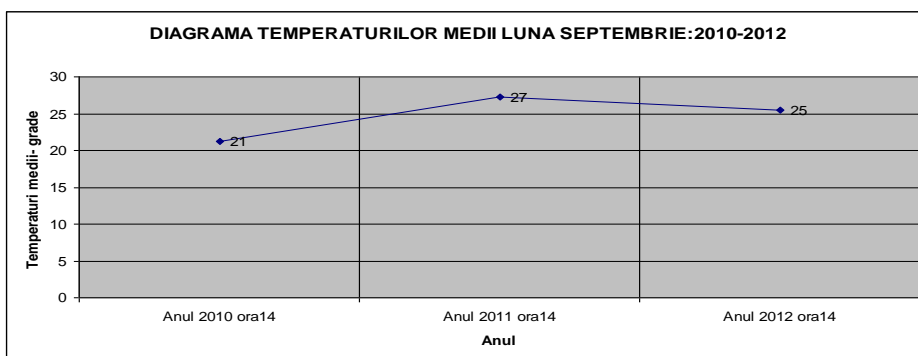


Figure 10 Diagram average temperatures in September, period -2010-2012

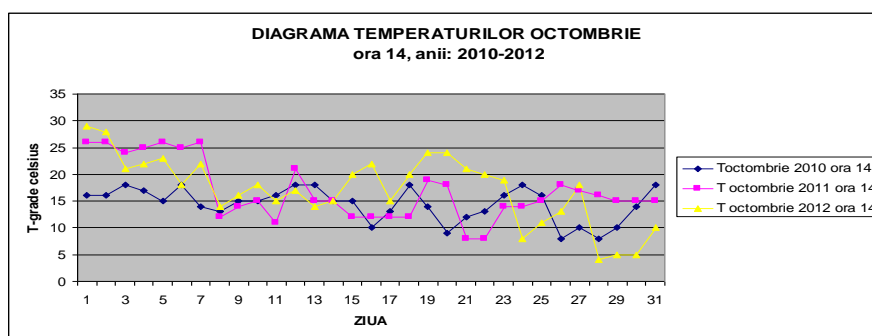


Figure 11 Diagram at temperatures in June, hour 14, period: 2010-2012

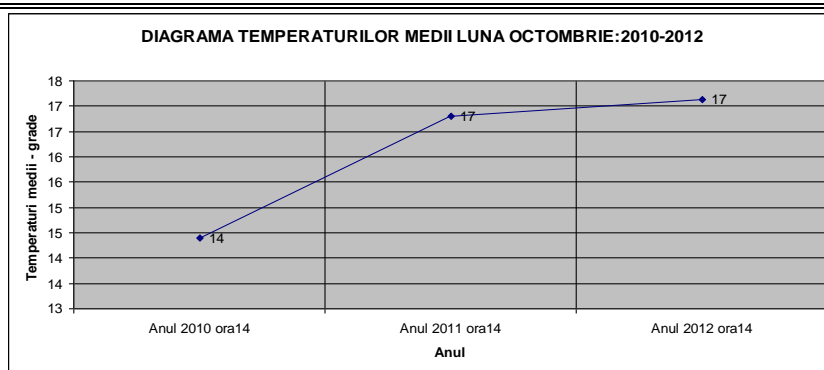


Figure 12 Diagram average temperatures in October, period -2010-2012

RESULTS AND DISCUSSIONS

Looking at the above chart we can see that the months with high temperatures were as expected, July and August but we can see that June and September were very hot day with temperatures over 25 degrees in proportion over 75% (of total days in a month) in 2011 and 2012. 2012, year in which afforestation works were completed within two blocks of improvement was a year when average monthly temperatures in the months from June to August are higher with 3-5 degrees less than in the same months in 2010 -2011.

These temperatures have increased droughts causing dry mass of seedlings and other agricultural crops or forest area. As can be seen from the diagrams temperatures in the months from May to October for the years 2010, 2011, 2012 monthly average temperatures have been steadily increasing from year to year which is why dry forest plantations in the area of improvement is a consequence of this climatic factor that contributed, along with the lack of precipitation in this period, the desertification area.

CONCLUSIONS

Disasters on forest crop area Becicherecu Mic improvement was due to the drought which in turn arose as a result of increases in average temperatures about 2-5 degrees, during June-August 2012 compared to the same months in 2010-2011. Practically monthly average temperatures were steadily increasing from year to year.

Very high temperatures for more than 10 consecutive days in conjunction with the lack of rainfall led to increased evapotranspiration phenomenon and that the dehydration seedlings deprived of moisture needed to survive.

Given the above, as well as forecasts of global warming is expected that future droughts in this area to be increasingly frequent and higher intensities reason for the success of any culture (agricultural or forestry) need an irrigation system that can help in times of drought seedling plantations until roots reach the ground water level in order to survive (5 -10 years).

If in the steppe and forest steppe in Timiș County will not make afforestation large areas (on the order of thousands of hectares) to improve the local climate in the future, the entire area is prone to desertification.

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