



# CLIMATE DETECTIVES 2021 – 2022



LOS CLIMATICOS DEL CASONA.  
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## RESEARCH QUESTION

### WHY DO DECIDUOUS PLANTS LOSE THEIR LEAVES LATER AND LATER?

## SUMMARY OF PROJECT

To carry out the research we needed to obtain weather data that we have observed daily. For this we have built a basic weather station with a thermometer that recorded the maximum and minimum temperatures and a rain gauge that recorded the amount of precipitated water.

The data collected daily have been:

- the maximum temperature,
- the minimum temperature,
- the difference between the maximum and minimum temperature,
- hours of sunlight.
- the state of the sky: sunny, cloudy, haze, etc...
- the force of the wind:
- the amount of precipitation and
- air quality.

Some of the data such as air quality, historical temperatures from previous years or daily hours of sunshine have been extracted from different pages, including:

- <http://www.aemet.es>
- <https://aqicn.org>
- <https://www.sunrise-and-sunset.com>
- <https://www.tutiempo.net>

We have organized the data obtained in tables and with them the corresponding graphs have been elaborated that will help us to analyze the data.

Figure 1: School weather station.

## MAIN RESULTS

The temperatures in the month of February from 2015 to 2022 have risen in their average value, both the average of the maximum and that of the minimum.

In the month of March, the temperature trend, both the maximum and the minimum, have been maintained from 2015 to 2022.

What we have also verified in the increase of the difference between the maximum and minimum temperatures.

The quality air in Zamora is always below 50 points, so we can say that the air in Zamora is good and this does not harm the surrounding plants.

According to the temperatures taken, a small increase in them is noted, so this will affect the loss of leaves and the flowering in spring that can be brought forward.

In Zamora the air has good quality, so we do not directly contribute to climate change. But if we consume products and energy produced in factories and thermal power plants that do expel polluting substances into the air and for which we are also responsible. This makes climate change a global problem.

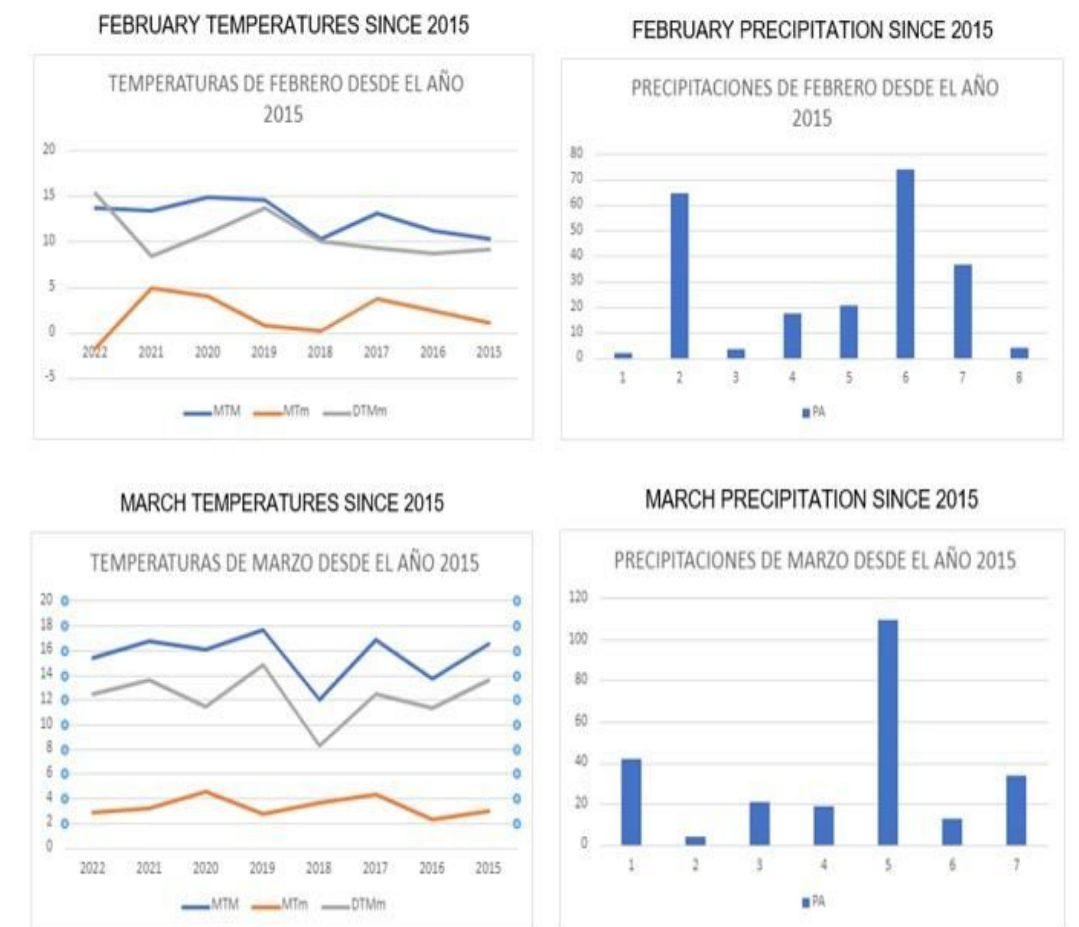


Figure 2: Temperature and rainfall evolution graph for February and March since 2015.

## ACTIONS TO HELP LESSEN TO THE PROBLEM

What can we do to change this situation?

- Recycle and give a second life to many of the products we use.
- Use individual transport only in necessary situations and, as far as possible, public transport.
- Consume energy generated by green energy sources.
- Do not cut down or burn the forests and maintain the planet's flora.
- Do not produce waste.
- Use electrical appliances and electric lighting only when necessary.
- Do not use sprays since they contain CNC and deteriorate the ozone layer.
- Control the temperature of heating and air conditioning so that they consume less energy.
- Control the consumption of hot water.
- Commit to carrying out all these measures.

Figure 3: