The growth of typical garden plants in the partner school countries in comparison

Identical raised beds were set up at all partner schools and the climate data (relative humidity and air temperature) were determined using "senseBoxes" and transferred to an open climate data map (https://sensebox.de/de/opensensemap.html).
Basically, the climate of the cities involved in the project is shaped differently due to their geographical location:

The coordinating school is located in Humenné, in the east of Slovakia (156 m above sea level). The climate there is generally continental. Numerous mountain ranges have a great influence on the climatic conditions in the country. In summer the average highs are between 24 and 26 degrees, in winter between 1 and 4 degrees with an annual average of 1°C. In the east, the weather is still somewhat more continental, with hotter summers, but also colder winters. The annual rainfall is about 500 mm on 95 days.

In Bagheria (Sicily, Italy) and Valencia (Spain), which are both Mediterranean coastal cities, the climate is intensely influenced by the Mediterranean Sea: With variations of 11.5 ° C in January and 25.5 ° C in August, Valencia reaches an annual average temperature of 17.8 ° C - so even in winter, frosty weather is not to be expected. The climate data show that the number of rainy days remains manageable. The autumn months are heralded by strong winds, which usually whisper softly, but then can come in powerful gusts. While it can be overcast in winter, the amount of sunshine in the summer months is enormous with 11 hours. During the day, temperatures of more than 30 ° C are reached in fine weather, the sea warms up to 25 ° C - often a gusty wind blows.

In Moers (northwest Germany near the Rhine, on the border with the Netherlands) the climate is mainly determined by western air currents coming from the Atlantic Ocean (North Sea), which is about 200 km away. Moers lies 29m above sea level. Overall, the climate in Moers is temperate with a considerable amount of precipitation. Even in the driest month, rain usually falls on a few days. Within a year there is 874 mm of precipitation. The annual average temperature in Moers is 10.8 °C.

During the measuring period with the senseBoxes these average values were confirmed with an average humidity of 54% and an average temperature of 11°C in Humenné, an average humidity of 54% and an average temperature of 16°C in Bagheria, an average humidity of 60% and an average temperature of 15°C in Valencia and an average humidity of 80% and an average temperature of 13°C in Moers. Here the values were also subject to the strongest day-night fluctuations, while these were lowest in Humenné. The driest days were found in Bagheria and Valencia, with relative humidity below 30% and daily maximum temperatures of 24°C.

For garden plants, the growing conditions are so different that heat-, light- and moisture-loving plants such as tomatoes and lettuces in Moers and Humenné do not yet find suitable conditions outdoors in spring and can only thrive in summer, while cold-resistant garden plants such as radishes and parsley showed good growth, while in the south they can only thrive in the winter months.

Climate diagram for Humenné
These averages are from Kamenica Nad Cirochou (7 kilometers from Humenné).
Climate key data
Warmest month
July (average: 19 °C)

Coldest month
January (average: -2 °C)
Wettest month
July (average: 54.2 mm)
Windiest month
February (average: 9 km/h)
Annual precipitation
407.5 mm (annual)

Climate chart for Bagheria
These averages are from Palermo Boccadifalco (18 kilometers from Bagheria).
Climate key data
Warmest month
August (average: 27 °C)
Coldest month
February (average: 12 °C)
Wettest month
December (average: 54.6 mm)
Windiest month
February (average: 14 km/h)
Annual precipitation
351.5 mm (annual)

Climate chart for Valencia
These averages are from Valencia / Aeropuerto (9 kilometers from Valencia).
Climate key data
Warmest month
August (average: 26 °C)
Coldest month
January (average: 11 °C)
Wettest month
October (mean: 19.1 mm)
Windiest month
April (average: 12 km/h)
Annual precipitation
109.1 mm (annual)

Climate diagram for Moers
These averages are from Duesseldorf (20 kilometers from Moers).
Climate key data
Warmest month
July (average: 19 °C)
Coldest month
January (average: 3 °C)
Wettest month
December (mean: 47.9 mm)
Windiest month
January (average: 14 km/h)
Annual precipitation
423.6 mm (annual)