Olive tree

Botanical information:
Family: OLEACEAE. This family is made up of several genera and species in addition to the plant we are referring to here, which is mainly the cultivated olive tree (*Olea europaea var. europaea*), due to its cultivation and its presence as an ornamental in the city, as well as the allergenicity of its pollen. There is also a wild olive tree (*Olea europaea var. sylvestris*), which grows near the coast in areas with a Mediterranean climate.

The olive tree is a green or evergreen tree, and is between 2 to 10 metres high. The leaves are narrow and elongated (lanceolate), dark green on the obverse (upper side) and silvery green-grey on the reverse (lower side). The flowers are small but very showy, due to their white colour and showy yellow stamens, as well as being grouped in inflorescences. The fruit is the olive, ellipsoidal or globular in shape and of different shades, from green to red and black when ripe.

The olive tree is widely cultivated for its fruit (olive), from which oil is extracted as well as consumed directly. Apart from being present in cultivated fields, it is also used in urban and built-up areas as an ornamental tree (we advise against it!) in parks and gardens, both public and private.

Fig. 1. General view of an olive tree (used as an ornamental) and detailed view of a branch with leaves and twigs with leaves and fruit (olives).

Scientific name (species): *Olea europaea*

Common names:
English: olive, wild olive
Català: olivera, oliver, bardia, nastre, ullastre (silvestre), oastre (silvestre)
Castellano: olivo, aceituno, olivera, acebuche (silvestre), azambujo (silvestre), oleastro (silvestre), zambullo (silvestre).
Euskera: gaimelurraitz, olibondoa.

Galego: oliveira, zambujo.

Important species of the same family are Broad-leaved and narrow-leaved privet (*Phillyrea latifolia* and *P. angustifolia*.), Ash (*Fraxinus sp*.), Privet (*Ligustrum vulgare* and other *Ligustrum species*), and Lilac (*Syringa vulgaris*) among others. The pollen of all these species is similar to that of the olive tree but with sufficiently clear features to differentiate it and, therefore, when we speak of olive tree pollen, we refer exclusively to that of *Olea europaea*.

Aerobiological information

Olive tree pollen is present in the air during the months of May to June, although in warmer areas, it can start in April and the presence of pollen can extend until July. The presence of this pollen is particularly noticeable in areas close to crops and it reaches mountainous areas as it is easily transported by air currents.

The pollen calendar is shown below, with information on the distribution of this type of pollen throughout the year at each of the stations of the Aerobiological Network of Catalonia (*Xarxa Aerobiològica de Catalunya*, XAC). For more information consult: https://aerobiologia.cat

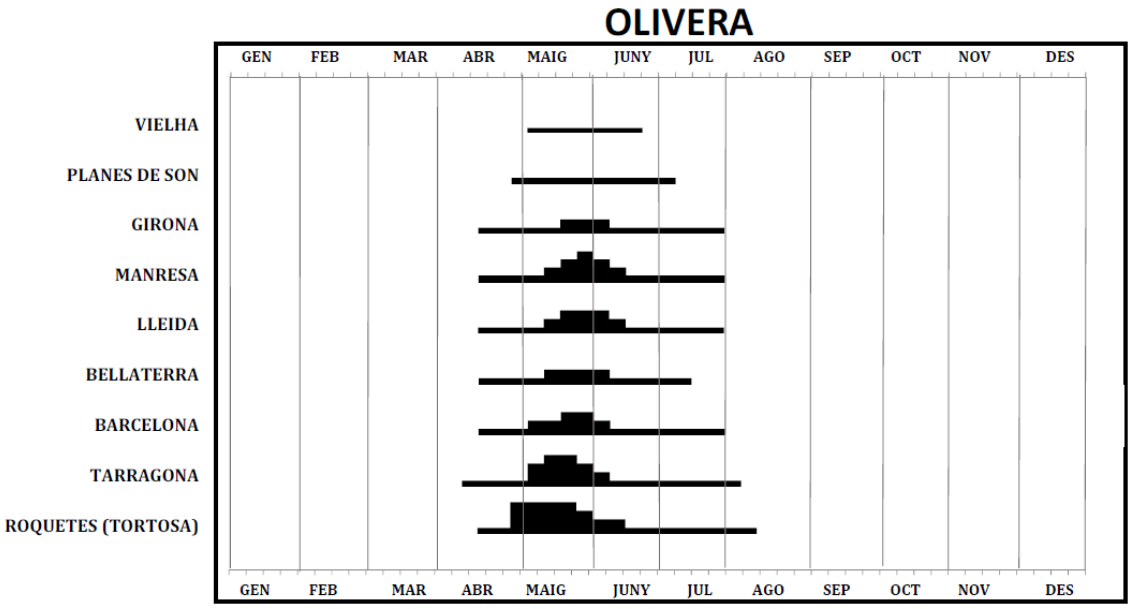
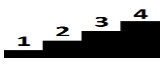


Fig. 2. Comparative dynamics of olive pollen levels in Catalonia and allergy risk.



Levels	Concentrations	Allergies
1. Low	Little important	Rare
2. Medium	Medium	Possible risk
3. High	Very high	Important risk
4. Very high	Maximal	Maximal risks

Remark: Near flowering plants, levels may be higher than indicated.

Medical information:

Olive pollen is cross-reactive to a common allergen with ash pollen, which pollinates between December and April, and with privet pollen, which pollinates between June and July, and maybe cross-reactive to buckthorn (February-April) and linden (March-May). Olive-pollen allergy symptoms may persist from February to June.

The association between olive and poaceae pollen allergy is frequent because part of the pollination of poaceaees coincides with that of the olive tree.

Tips for people with allergy to artemisia pollen

- Be aware of (with a medical diagnosis) which pollen is causing the allergy.
- Keep yourself informed of the levels of allergenic pollen in your usual area and inform yourself of the levels in the areas where you plan to go. It is advisable to adapt voluntary trips (weekends, vacations...) to areas where the allergen that affects us is not present. The website https://aerobiologia.cat shows updated information on pollen levels in Catalonia and explains how to access information from other geographical areas. You can sign up (and unsubscribe) to receive the weekly newsletter at: https://aerobiologia.cat/pia/en/subscribe#newsletter
- If you notice "problems" outside the usual season, consult your allergist to see if sensitization to other allergens has occurred.
- Learn to recognize the pollen-producing plant that causes allergy and, above all, what its flower looks like, from the moment it begins to form and while it is releasing pollen.
- Have the plant that causes allergy located in the usual environment (home, school, work...) and avoid approaching it as much as possible when we see it starts to have open flowers and until the end of flowering.
- During the pollination season,
    - if you are outdoors, protect your eyes with dark circles and your nose and mouth with a handkerchief or a mask to help filter the air.
    - if you go by car, travel with the windows closed and with an anti-pollen filter; if you go by motorcycle or bicycle, follow the previous advice.
    - change your clothes when you get home and wash them before using them again.
    - dry your clothes indoors to avoid retaining the allergen that affects you.
    - wash your hair or avoid contact with the pillow when you go to sleep, as it will retain the particles that were in the air.
    - ventilate the rooms for 5-10 minutes, if possible before it gets light or early in the morning, because normally in this time slot there will be little pollen in the air.
    - wash fresh vegetables before eating them, as they may carry pollen grains.
    - be very careful on windy, dry and sunny days, as they tend to have higher pollen concentrations.
    - the central hours of the day are usually those with the highest pollen concentrations.
    - having a cold, environmental pollution, physical efforts, the presence of perfumes, tobacco, insecticides, lacquers... can aggravate the symptoms.