Aim: take into account the health impact for the choice and the maintenance of plant species in urban and peri-urban area.

Materials and methods:
At the request of Health Authorities, the RNSA published in 2008 an electronic guide in order to inform public or private decision-makers on the necessity of taking into account the Health Impact in the choice and maintenance of plant species implemented in urban and peri-urban area. This methodologic guide contains some information about:
- the allergy, clinical symptoms and consequences on everyday life
- allergy and plants: pollens allergy potency of some species
- action: by a diversification of some species, by maintaining at specific periods to limit pollen production
- for trees and shrubs: indication of species to avoid and proposals of substitutions depending on the typology of uses (hedges, banks, alignment)
- for grasses: description of species to avoid according to their allergenicity

Allergy, the clinical symptoms and consequences on everyday life:
The allergy is an abnormal reaction of the body against external substances called allergen. The main clinical symptoms are rhinitis, conjunctivitis and asthma. Allergies affect the quality of life (restriction of usual activities, sleep disturbances, impaired alertness) and have a cost (absence from work, consultations and treatments).

Species diversification:
Introduce landscape diversity can reduce the pollen concentration of the same species in the air. According to the allergy potency, the level of diversity necessary to reduce the risk of allergy varies. Species with low allergy potency may be present in greater numbers than those with a high allergy potency. Diversifying species reduces the risk of allergy and makes the plant heritage of a town less sensitive to an epidemic. Create mixed hedges instead of cypress hedges has an effect on the allergy and the standardization of the landscape, it allows the development of a more diverse fauna.

Typology of use: fixing banks

Example of species to avoid (allergenic species) | Example of advisable species (non allergenic species)
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Acer campestre ou negundo | Cornus stolonifera
Alnus glutinosa | Eonymus europaeus
Betula nigra | Prunus padus
Castanea sativa | Ptelea trifoliata
Fraxinus excelsior | Pterocarya fraxinifolia
Populus alba ou tremula | Pterocarya stenoptera

You must choose species that tolerate moisture and are less allergenic.

Example of what not to do
A forest of 800 bird (very allergenic tree) has been planted in the center of a big city, in the gardens of a new neighborhood.

Typology of use: roadside trees

Example of species to avoid (allergenic species) | Example of advisable species (non allergenic species)
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Cupressus arvensis et | Prunus serrulata et
Cupressus sempervirens | Prunus lusitanica
Corylus | Cornus alba
Carpinus | Forsythia intermedia
Ligustrum regelianum | Illex aquifolium
Salix | Laurus nobilis

The hedge is a responsible laying out of many allergies. The monospecific hedge is the main cause of allergy, with an effect of concentration of allergenic pollens in the air.

Statistics of visits of the website

Example of what to do
Example of species that can be planted in a green area to limit the allergy risk

Conclusion:
This guide provides local decision-makers, landscapers and architects to avoid making mistakes difficult to solve like uniforms birch plantations in public parks. It also allows consultants to question or interview the RNSA about the allergy potency of the considered species and allergy risk potentially induced by the vegetation.