

PH: CNR IPSP



## Angels for plants



*The research institute that protects plants and defends our food*

**H**ealthy plants are the starting point for protection of our food and health. Plant protection is directly linked to the quality of our food and to the possibility to reduce crop losses, an important task for agriculture, already put through the wringer by climatic changes and natural catastrophes. Despite progress in science, plant diseases, pests and weeds still represent a serious problem for crop harvesting and food production, causing huge losses. The warning comes from the Institute for Sustainable Plant Protection – IPSP ([www.ipsp.cnr.it](http://www.ipsp.cnr.it)) of the National Research Council of Italy (CNR), recently founded merging two previous Institutes: the Institute of Plant Virology (IVV) and the Institute for Plant Protection (IPP). Nowadays, IPSP is an internationally recognized center for crops protection, with 110 staff members and branches in Torino, Bari, Firenze

and Napoli. “Sometimes, we have to face challenging emergencies - declares the director of the center, Gian Paolo Accotto - comparable with the most serious human epidemics”. This is the case of the quick decline syndrome affecting olive trees in the Salento area, caused by a bacterium alien to the European continent, a “massacre” that has immediately raised close attention in Apulia Region, Italy and Europe, with funds promptly allocated to fight this new epidemics. “New pathogens, ranging from microorganism (viruses, phytoplasmas, bacteria and fungi) to insects, mites, nematodes and weeds, constantly arrive from distant countries as a consequence of globalization –the director explains – and may quickly become invasive and dangerous”. Among the dangerous pests studied at IPSP we can list several economically important plant viruses and their vectors, the oriental chestnut gall wasp,

the phytoplasma causing grapevine yellows and the fungus inducing cypress canker. “The mission of the Institute - dr. Accotto reminds us - is not only to identify plant pests and diseases, but also to provide sustainable and eco-friendly defense (or at least containment) strategies against them. For the specific purpose, our research is focused on the biological control of plant diseases by the application of insects and antagonistic fungi, the improvement of the interactions among plants, use of mycorrhizal fungi and beneficial soil bacteria, the selection of resistant cultivars and rescue of economically important species”. The complexity of these tasks needs an interdisciplinary approach and contributions by different stakeholders. Many of IPSP scientific activities are actually carried out in collaboration with private companies, such as seed producers, nurseries and diagnostics services.