OPTIMA

Redefining Pest Management - a Holistic Approach

Practice Abstract Nº 31

Chemical control of apple scab

Apple scab, caused by the fungus *Venturia inaequalis*, is a major disease in world-wide apple production. Apple growing environments usually characterized by cool and rainy summers, favor this disease which requires intense chemical control measures. The disease affects leaves, buds, flowers and fruits and sometimes twigs. Symptoms include twisted and puckered leaves that have black, circular scabby spots on the underside. On the upper surface the spots look velvety and have an olive-green, sooty appearance. As the disease progresses, the leaves get yellow and drop. The fruit develops scabby spots that are tan and sunken.

OPTIMA project searches alternative products to reduce the use of chemical PPPs and optimize their efficacy. The control strategy is based on the use of preventive action products, used immediately before any infectious rains, and integrated, if necessary, by curative treatments with retroactive products to block the infection within a certain number of hours since its inception. Currently preventive fungicides registered in EU include: anthraquinone (dithianon), dithiocarbamates (mancozeb, metiram), ftalimid (captan), pyridinamine (fluazinam), guanidine (dodine), SDHI (penthiopyrad, fluopyram, fluxapyroxad), strobilurin (trifloxystrobin, pyraclostrobin). Curative products include: anilino pyrimidine (cyprodinil, pyrimethalin) and azole (difenoconazole).

Resistance to strobilurin and IBE fungicides were reported therefore the use of different active ingredients and tank mix are recommended to prevent the spread of resistance.

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