



Grapevine Collections and their diseases at the Italian Research Centre for Viticulture

[Luisa Filippin](#), Irene Bazzo, Nadia Bertazzon, Lorena Dalla Cia, Vally Forte, Gianluca Lucchetta, Luigi Miotti, Michele Borgo, Elisa Angelini

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Italian Council for Agronomic Research (CRA)



Research Centre for Viticulture (CRA-VIT)

Several topics of viticulture are covered:

- Physiology
- Agronomic management
- Ampelography and genetic improvement
- Pathology and protection
- Clonal selection



- ✓ 15 research Centres
- ✓ 32 research Units

Grapevine CRA-VIT Collections



COLLECTIONS

N°

Table grapes	504
Wine grapes	540
Hybrids	123
Rootstocks	219
Clones	192
Other biotypes	1671
TOTAL	3249

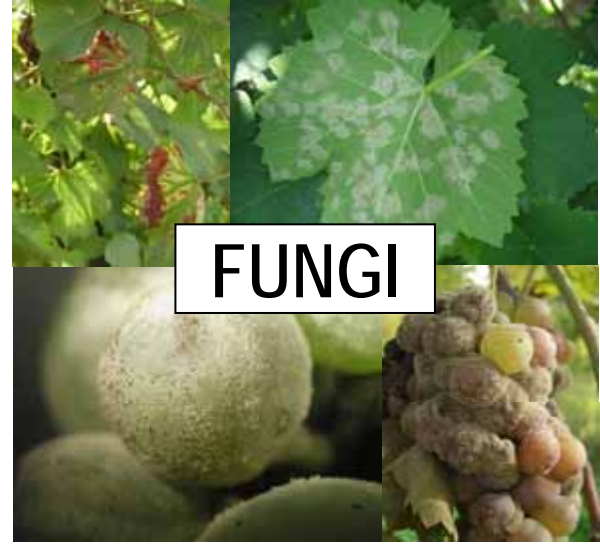
CONSERVATION:

- *ex-situ* in vineyards
- partially in screen-house (3 plants for each clone)
- partially *in vitro*

CHARACTERIZATION:

- phenological parameters (sprouting, flowering, veraison, ripening)
- ampelometric parameters (OIV descriptors)
- molecular methods (SSR markers)
- agronomic (productive and qualitative) parameters
- sanitary status

Diseases affecting the CRA-VIT Collections



Diseases affecting the CRA-VIT Collections

“Local” pathogens

MOST SERIOUS

1. phytoplasmas (FD and BN)
2. leafroll viruses (GLRaV-1 and –3) and grapevine virus A (GVA)
3. Downy mildew, powdery mildew, grey mould, esca associated fungi
4. Crown gall disease

“Foreign” pathogens

- other viruses

Disease control

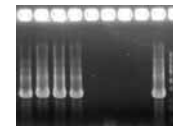
FUNGI:

- pesticides treatments



PHYTOPLASMA DISEASES:

- insecticide treatments against *Scaphoideus titanus*
- visual observations of symptomatology
- PCR diagnosis and uprooting of infected plants



Disease control

VIRUS DISEASES:

- insecticide treatments against mealybugs
- micropropagation + thermotherapy



improvement of sanitary level of
60 table grape varieties and
some CRA-VIT clones



Disease control

- **OTHER PATHOLOGIES:** visual observation
- **COLLECTION RENEWAL:** selection of healthiest plants



THANK YOU!