



GERMPLASM REPOSITORY FOR GRAPEVINE

Bundesanstalt für Züchtungsforschung
im Wein- und Gartenbau
Institut für Rebenzüchtung Geilweilerhof
D-6741 Siebeldingen
FR of Germany
Telephone: (06345) 410 · Fax: (06345) 41177

NEWSLETTER 2

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Genetic resources — Distinction and identification of cultivars

In the scope of the 5th International Symposium on Grape Breeding, an ampelographic workshop took place intending the elaboration of a 'Preliminary Minimal Descriptor List for Grapevine Varieties'.

This preliminary list of characteristics includes 41 descriptors from which 12 descriptors were taken over from 'O.I.V Descriptor List for Grapevine Varieties and *Vitis* Species' without any adjustments, further 19 descriptors of this list were modified and 10 new characteristics were added. An O.I.V. resolution recommended the application of this list for distinction and identification of grapevines and a further meeting in 2—3 years to discuss the results. Up to date, 12 institutes from 8 countries are cooperating. Further institutes have shown their interest in participation.

Collection holders, interested in this international project of distinction and identification of grapevines and ready to evaluate about 30 cultivars, are very welcome.

An assistance includes the following tasks:

1. Collecting, drying and sending of 10 representative leaves/cultivar
2. Collecting, drying and sending of about 50 seeds/cultivar
3. Measurement and/or evaluation of 20 characteristics of the 'Preliminary Minimal List'

Measuring of leaves and seeds, data processing and compilation of the results will be made by:

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We welcome any inquiries and are prepared to send the 'Preliminary Minimal List' with detailed informations to the above explanations to interested collection holders.

Contributions

The constitution of an *in vitro* collection of grapevine varieties

ROSE GALZY, DANIEL COMPAN, HÉLÈNE COMPAN and BRIGITTE FAGES

INRA — Laboratoire de Recherches de la Chaire de Génétique, Place Viala, F-34060 Montpellier Cedex, France

An *in vitro* collection of vine varieties has been created and is managed using the following methods:

- Green cuttings of identified clones from public collections or private producers are placed *in vitro*.
- Heat treatments — alone or combined with shoot tip culture — are applied to the plants *in vitro* to eliminate major vine viruses.
- The clones are maintained in long-term culture by periodic micro-cuttings on media containing no growth substances in order to ensure true-to-type multiplication. The varieties are conserved under two different growth conditions simultaneously:
 - a) Active-growth conditions: temperature 21 °C, lighting (PPFD) 40 $\mu\text{mol m}^{-2} \text{s}^{-1}$, photoperiod 14 d, medium containing sucrose (15 g l⁻¹). Different temperature and lighting conditions are applied to certain genotypes during the rooting phase. The media are replaced after 4–6 months of culture.
 - b) Slow-growth conditions: temperature 11 °C, reduced lighting. Three different lighting levels are applied according to the biological types. The sucrose content of the medium is lower. The media are only replaced after 12–18 months of culture.
- The collection is managed using a computerized database. Each clone has a 4-figure reference number defined both by its ampelographic classification and its alphabetical order. Each entry consists of 13 data concerning the origin of the clone and its culture conditions.

Today, the collection comprises 75 clones of 15 species of the genus *Vitis* and related genera. However, most of the collection is devoted to cultivated varieties. These include 42 varieties of *V. vinifera* and 15 interspecific hybrids. The culture and management methods designed allow considerable extension of the collection.

Genetic resources — Gene banks

Departamento de Investigación y Desarrollo Vitícola, Bodegas Berberana, S.A., E-26350 Cenicero, La Rioja, Spain

- A new collection (planted in 1990) with endangered and not identified cultivars from Rioja area and some wild dioecious genotypes found last year at Roncalli valley.
- All of our cultivars are of questionable identity.
- There are some national activities in the field of germplasm preservation but not in *Vitis*.
- *In vitro* storage is planned.

Recently published

PETAR CINDRIC: Sorte Vinove Loze (Ampelografija). Grapevine Cultivars (Ampelography) [Serbian]. Nolit, Beograd, 340 pp., 1990. ISBN 86-19-01788-8.

This book describes 159 grapevine cultivars, from which 50 cultivars and new breedings are of West European origin. Further 83 varieties described are from Near East, East Europe and USSR, and 32 are new Yugoslavian breedings.

The description of the cultivars comprises synonyms, origin, morphology and viticultural characteristics.

Announcement

From July 1 to 5, 1991 an Ampelographic Workshop will take place in San Michele/Trento, Italy.

Papers will report on the distinction of cultivars (morphological characteristics, usage of biochemical methods and data processing) and the description and identification of rootstocks and the Italian grapevine cultivars.

Further information is available from:

Istituto Agrario Provinciale
Via E. Mach 1
I-38010 San Michele all'Adige
Italy