



---

---

## GERMPLASM REPOSITORY FOR GRAPEVINE

Bundesforschungsanstalt für Rebenzüchtung  
Geilweilerhof  
D-6741 Siebeldingen/Pfalz  
FR of Germany  
Telephone: (06345) 410 · Fax: (06345) 41177

---

---

NEWSLETTER 1

March 1990

---

### Genetic resources — Gene banks

In the early seventies experts worldwide realized that plant diversity was endangered by progressing civilization and destructive environmental incidents. *Vitis* species are not excluded from this phenomenon. The contrast between *Vitis* species and cultivars mentioned in the literature and those actually existing *in situ* or in collections emphasize the loss of genotypes.

In plant breeding there is an ongoing need for genes responsible for resistance to disease and pests. In addition to the search for resistance genes, genetic resources will always be needed as a reservoir for future, still unknown requirements. Evaluation and conservation of the *Vitis* genetic diversity in old land races and wild species is therefore essential.

For these reasons the IBPGR proposed measures to conserve, collect and evaluate the grapevine genetic resources. In September 1979 in Rome and again in 1982 the IBPGR arranged workshops. The working group emphasized the need for collecting wild species. Top priority was accorded to China, North India and Nepal. Within Europe and mediterranean countries, IBPGR supported a ten-year project on the exploration, maintenance and documentation of *Vitis* germplasm in Greece. The same year at the 62nd General Assembly of the O.I.V., reports on the genetic resources of *Vitis* were given by VAN SLOTEN (IBPGR), ALLEWELDT (FRG), HUGLIN (France) and GOLODRIGA (USSR). These four authors again pointed out the urgency of germplasm collection because of the losses of wild forms and primitive cultivars of *Vitis*, and the necessity for international cooperation in their characterization, evaluation and maintenance in gene banks.

Based on these reports two resolutions on genetic resources of *Vitis* were adopted by the General Assembly.

The resolution no. 1/82

of the General Assembly recommends the official usage of the descriptor list developed in cooperation with the IBPGR and UPOV and the publication of the list by the O.I.V. in a manner allowing ongoing revision.

The resolution no. 2/82

recommends the collection of germplasm in centers of diversity (China, Asian part of USSR, Near and Middle East and North America), characterization and evaluation by ampelographic specialists, maintenance of Vitaceae, *Vitis* species and cultivars and clones in collections, intensification of *in vitro* storage research and the development of international cooperation between gene banks and the free exchange of genetic material.

Since 1983 a working group at the BFAR — Bundesforschungsanstalt für Rebenzüchtung — has been engaged in the documentation of collections worldwide and in the inventory of existing *Vitis* species, cultivars and genotypes supported by IBPGR and in cooperation with O.I.V. The results were published as

World List of Grapevine Collections. 2nd edition, 1988.

by G. ALLEWELDT and R. BLAICH

The Genetic Resources of *Vitis*, Parts I and II. 2nd edition, 1988.

by G. ALLEWELDT

Revised Supplement since 2nd edition of Part I. 1989

by G. ALLEWELDT and E. DETTWEILER

All compilations are available at the BFAR (see last page of this issue).

During the 5th International Symposium on Grape Breeding in St. Martin, Germany, two workshops were organized and dedicated mainly to identification and distinctness of grapevine genotypes by means of ampelographic descriptors, isoenzymes or RFLPs. The participants stimulated the edition of a 'Newsletter on Grape Germplasm' presenting information to researchers on current activities in this field in order to learn from experiences of others, to get familiar with new ideas and to establish contacts, and to exchange materials at an early phase of research projects.

All scientists working in this field are solicited to participate this Newsletter with contributions on:

- description and identification of germplasm
  - morphological methods
  - chemotaxonomy of components
  - isoenzyme analysis
  - RFLP analysis
- evaluation of germplasm
- preservation methods
  - in situ*
  - ex situ*
- documentation systems
- announcements
  - workshops
  - meetings

Contributions to this Newsletter will be collected and edited at the BFAR and will be published in VITIS.

Each contribution should be restricted to several lines or a short paragraph, since the entire Newsletter shall not exceed 4 printed pages. The Newsletter is intended to be general in nature. Therefore accounts could mention new methods used but should not describe methodological details. Their exchange between specialized working groups will, however, be provided. The following paragraph may give some hints for points which could be of interest.

- A very short portrait of your collection (size, purpose) and working group might be interesting to colleagues.
- Do you evaluate agronomic features and/or resistance to biotic/abiotic stress in your collection?
- Do you have cultivars with questionable identity; how do you try to identify them?
- Are there any national activities in the field of germplasm preservation?
- Is *in vitro* storage used or planned?
- Do you have experience with long-term storage of seeds of *Vitis* spp.?
- What kind of descriptor list is used and which descriptors seem particularly valuable/useless?

Please send your contributions to

Bundesforschungsanstalt für  
Rebenzüchtung  
Geilweilerhof  
D-6741 Siebeldingen  
FR of Germany