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poster

**RECOVERY STRATEGIES FOR POTATO HERITAGE VARIETIES ON
THE GENOESE MOUNTAIN (NW ITALY)**

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FIRST SURVEYS [M.A.]

During 1983 I started looking for seeds throughout inland Liguria. I was interested in those one that farmers reproduced for themselves or traded with each other, without needing to buy imported varieties. I had heard of genetic erosion, the impoverishment of germplasm and the monopoly of sterile hybrids on the markets, and I was (as I still am) convinced that the safeguarding of varieties, dialects, cultures, ideas and - why not? - *seeds* is a moral imperative as well as a sound strategy for survival. I was aware that mountainous areas were being progressively abandoned and that indigenous seeds (and breeds) were becoming extinct: I collected information about grain and apples, but someone told me about potatoes, and in particular about the *Quarantina bianca* variety (so-called by public notoriety) grown extensively throughout most of the Ligurian Appenines before *Tonda di Berlino* (*Allerfrüheste Gelbe*) appeared in the Thirties, and *Bintje* and other well-known Dutch or American varieties arrived after the Second World War. My eye-witness added that they had always seen and propagated the *Quarantina*, as had their father and grandfather before them.

I decided to conduct a survey to determine what were left of the ligurian heritage varieties. In doing so, I visited more or less one hundred villages on the Appenines around Genoa (between the Stura and Àveto valleys). The informations I gathered about the potatoes were confirmed to me wherever I went: until the Fifties, the *Quarantina* was the most widespread variety grown on the mountains behind Genoa (so was the so-called *Cannellina* potato in the inland of Tigullio Gulf, about

30 kilometres east from Genoa). Thereafter, it was replaced by high yielding Dutch, Scottish and American varieties (*Bintje*, *Desirée*, *Monalisa*, *Majestic* and particularly the white fleshed *Kennebec*) and *Quarantina* was subsequently and apparently "lost".

Fifteen years ago, I found no more than 40 producers who cultivated a small quantity (from a few kilos to 50-60 kilos) only for their own consumption. In the autumn of 1996 I repeated the survey on the same areas: at that time there were only fifteen producers, and half of them were over the age of eighty. Clearly, there was no time to lose.

TWO LOCAL VARIETIES [M.A., L.L.]

New territorial surveys conducted in the last three years have allowed us:

- to know with certainty the most widespread local varieties maintained until fifty years ago;
- to gather information about the indigenous knowledge and practices associated with their cultivation;
- to collect and reproduce some samples of these varieties.

Furthermore, it has been possible to realize two interesting objectives:

- It is perhaps the first time in Italy that someone took care of the safeguarding of local potato varieties;
- There is a great and unexpected interest from local farmers who hope that the recovery of these varieties may be an economic incentive to salvage a small area of inland Liguria that is not cultivated anymore.

In fact *Quarantina bianca* and *Cannellina nera*, despite their low yield (1:5), are very popular in the marketplace - in particular restaurants - where their excellent taste and their culinary features are highly acclaimed.

During 1998, all the accession founded during the territorial survey were characterized by L. Lovatti with standard UPOV descriptors and quality cooking behavior was assessed at the end of the storage period (+6°C).

- *Quarantina bianca* is an early potato, with round shaped tubers, deep pink eyes, good skin finish, white flesh and flowers, very good culinary type B and soft firmness.
- *Cannellina nera* is a very firm white fleshed variety, with long shaped tubers, very deep eyes, leather-coloured and resistant skin, light-purple and white flowers, excellent culinary type A and strong typical taste.

REGENERATING LANDRACES [L.L.]

The tuber-seed of *Quarantina bianca* and *Cannellina nera* are highly infected by the common viruses spread in the area of cultivation: PVY, PLRV, PVX and PVS but are fortunately not infected by PSTVd and other Quarantine diseases (EC Directive 77/93). In order to start seed production during the 1998 and 1999 seasons, two initiatives were launched:

1. The samples collected by M. Angelini were planted in one farm to compare the morphological characteristics. Tubers of each accession, were sent to *CISA M. Neri* in order to assess the presence of bacterial and viral diseases.

During 1999 we started virus cleaning through meristem culture and thermotherapy. The objectives were to start the process of seed production; to register the varieties at the Italian Official Register; and, last but not least, to improve the yield of the varieties.

The virus free material will be conserved *ex situ* and *in situ*; improved seed multiplication will be undertaken for local growers.

2. In April 1999, the Provincia di Genova has established an *ad hoc* Committee (*Comitato per il recupero e la valorizzazione del patrimonio varietale di patata della Montagna genovese - Co.Re.Pa.*) together with local administrations, associations and farmers. The Committee has three main objectives:

- to promote the recovery and the regeneration of heritage varieties of potato founded on Genoese Mountain, in particular *Quarantina bianca* and *Cannellina nera*;

- to organize a network, consisting of farmers (producing potatoes for seed and for consumption) and restaurants, encouraging the former to adhere to the rules for organic agriculture (minimum UE-reg. 2092/91 and its adjournments);
- to register the two varieties and protect them and their distinct quality characteristics by a specific *Consorzio di tutela*.

After the regeneration and the inclusion of the two varieties in the National Seed Register, the *Consorzio di tutela* can be responsible for the ex-situ conservation of seed, acting as variety development organization and a biodiversity center (organized at the Genovese Agrarian school, in partnership with CISA M.Neri).

CONCLUSIONS [M.A., L.L.]

The two landraces recently have been included in the "Arch" project by Slow Food International. Agreements with local restaurants will ensure that the total production quantity can be sold and used to prepare attractive local dishes made from a high quality product. Production of the varieties is being undertaken by means of organic production in a mountainous environment, on terraced land, where conditions would not be suitable for high yielding modern varieties. The promotion of the cultivation and use of local varieties is enabling a form of sustainable "on farm conservation". The rediscovery and diffusion of local knowledge and local tastes are additional benefits of this project which is enabling the genetic resources to be conserved and the value of these historical, environmental and, not least, economical resources to be highlighted.

ACKNOWLEDGEMENTS

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- 1998 L. LOVATTI, *On farm conservation and use of old potato varieties in Italy*, «IPGRI, Newsletter for Europe», 14, p. 8.
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