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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
GENEVA

WORKING GROUP ON BIOCHEMICAL AND MOLECULAR TECHNIQUES AND DNA-PROFILING IN PARTICULAR

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NOTE ON THE COST OF DNA FINGERPRINTING

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NOTE FOR THE UPOV BMT ON THE COST OF DNA FINGERPRINTING

The cost of DNA fingerprinting has been very often used in the BMT meetings to warn people against using that technology for DUS testing. ISF representatives have also often said that the cost argument was not valid as the progress in the technology would decrease it drastically. The reason why ISF is at the moment opposed to the use of NA markers for DUS testing are legal and technical, not economical (cf. ISF view on Intellectual Property at www.worldseed.org, Position Papers).

Some years ago the cost per data point was around 5 US$ or more.

Today the commercial cost of a data point varies from 2 to 3 US$ depending on the service provider and the volume and/or the interest of the study.

In large seed companies the in-house cost varies from 0,50 to 1,40 US$ per data point, with an average of US$ 1. In a recent seminar the representative of Applied Biosystems indicated that with the TaqMan of the third generation the cost of a data point should be between 0,12 and 0,40 US$, depending on throughput. The average is close to 0,25 US$. The representative of Third Wave Technologies, with the Invader® Assay coupled to an ultra high throughput platform could, by the end of 2003, decrease the cost for a data point up to 0,01US$. It is very likely that the cost for a data point will drop to around 0,05 US$ in a couple of years, a hundred times less than 10 years ago.

If we assume that we need between 50 and 100 data points to fingerprint a variety, the cost per variety would be 2,5 to 5,0 US$.

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