

## ***mTOP - Molecular Tools for Orphan Plants***

Developing countries need a secure food supply, based upon the very best genetics that crops have to offer. Moreover these regions have potentially very valuable germplasm assets and genetic diversity to safeguard and trade with the developed world. However, staple crops in these countries are often poorly characterised in genetic terms and local plant breeding is not supported with modern genetic analysis technologies. ***IDna has the experience and the technology to address the practical issues faced by plant breeders and legislators in the developing world.***

Through our **mTOP** service, IDna Genetics is able to develop a comprehensive set of cost-efficient technologies customised for a nation's or region's particular staple crop or set of crops, or for local biodiversity monitoring/stewardship requirements. These technologies can then be delivered as an on-demand service from IDna's laboratories and/or, as required, IDna will develop and deliver a full technology transfer and training package to enable the customer nation to establish and apply these technical services locally.

IDna's in depth knowledge of state-of-the-art plant genetic diagnostics technologies, combined with our experience gathered over 25 years in support of crop genetics, offers a unique package to address any new crop/plant situation.

**IDna invites interested national organisations, regional bodies, public/charitable funding agencies and private sector seed groups to discuss particular programmes to deliver mTOP.**

### **Technical specifications**

- Development of tests for identification of species, and basic germplasm characterisation.
- Development of gene based COS marker sets that work across broad taxonomic ranges.
- Development of SSR molecular marker sets for in-species varietal identification, gene mapping and genotype selection.
- Deployment of the marker sets for local plant breeding target characters.
- Consultancy on marker development and plant genetics.
- Services and consultancy in support of legal protection of germplasm and biodiversity
- Deployment and training packages.

### **Benefits**

- Protection of genetic assets and the necessary molecular tools.
- State-of-the-art, cost-efficient technology customised for accelerated breeding of improved plant varieties.
- Access to state of the art equipment and technology.
- A unique combination of consultancy and technological backup, based on over twenty-five years experience in applying molecular tools to plant breeding problems.

For further information and to discuss projects under this service please contact:

**Peter G Isaac**  
peter.isaac@idnagenetics.com  
Tel: +44 1603 450941  
Fax: +44 1603 450939