The Business of Plant Breeding Market-led approaches to new variety design

- Demand-led plant breeding (DLB) combines best practices in market-led, new variety design with innovative plant breeding methods.
- DLB puts more emphasis on understanding the preferences of clients and their value chains rather than just promoting what new technology can offer (Figure 1).
- DLB delivers new varieties that meet the needs of farmers, consumers and processors for local, regional and export markets.



Three principles drive success in demand-led breeding:

- Target driven
- 2. Demand-led variety development strategy
- 3. Performance indicators to measure new variety adoption by farmers and their value chains.

Some core best practices in demand-led breeding

- Client quantification: Market segments, numbers and preferences of targeted farmers and their clients are defined before breeding programs start.
- Variety design: Detailed lists of traits with quantified levels of required performance are used to make line progression decisions.
- Development strategy and stage plan: A delivery strategy containing a time plan of activities and data required at key decision points is created before breeding project starts.
- Variety adoption: Target levels are set for adoption by farmers and monitored for success.

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Demand vs. supply-driven "Science and technology push" Seed Producers Plant Breeders Farmers Consumers Markets Retailers Traders, Wholesalers Seed Distributors Processors **Product adoption** "Market pull"

Education module

- State-of-the-art concepts and best-practices in DLB have been compiled by experts and educators from the public and private sectors across Africa and internationally.
- A training manual* and education module are available, covering:
- 1. Principles of demand-led variety design
- 2. Visioning and foresight to set breeding goals
- 3. Understanding clients' needs
- 4. New variety design
- 5. Variety development strategy
- 6. Monitoring, evaluation and learning
- 7. Business cases for new variety development
- The content is intended for postgraduate educators and scholars in plant breeding, crop improvement and seed systems and for continuing professional development of plant breeders in Africa.
- * The Business of Plant Breeding: Market-led approaches to new variety design in Africa (eds G.J. Persley and V.M. Anthony) CABI International, Wallingford UK. (2017)

More information

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