Private sector approaches to breeders training and development

Dr Viv Anthony

SFSA

Consultative workshop on Demand-Led Plant Variety Design

Nairobi, Kenya 14-15 May 2014

Private sector approaches

Internal
- Staff training and development with tailored courses and curriculum
- Internships working with expert breeders

External
- Fellowship programmes (PhD, Msc)
- Sponsorship breeding symposia

syngenta foundation
for sustainable
agriculture

Private sector comparison

External

Plant breeding Scholarships

- Monsanto (Msc/PhD)
- Bayer crop science

Sponsoring plant breeding symposia

- Dupont/Pioneer
- Bayer crop science

Internal

Internships

- KWS (graduates)
- Dow (Bsc/Msc)

Plant breeding academy

- Syngenta
- Face-to-face courses
- On-line training

Syngenta plant breeding academy

Objective

To enhance Syngenta's ability to recruit, develop and retain industry leading talent in breeding and related disciplines

Dr Heather Merk – Head of Syngenta Academy

- Coaching and tailored internal courses
- Setting breeding goals and priorities
- Demand-led approaches
- Breeding strategies
- Technical methods
- Multi-functional team working
- Project management

syngenta foundation for sustainable agriculture

Syngenta academy observations -1

- Face-to-face training and online each have a role

- Sharing experiences and best practices between breeders working on different crops and countries is key

- Real case studies led by breeders and commercial managers have most impact

- Data gathering from customers to direct breeding programmes is vital – continuous exchanges required – iterative process not just market research at start of a programme

syngenta foundation for sustainable agriculture

Syngenta training observations - 2

- Data driven world – finding strategies for breeders to take advantage of data to make decisions vs. relying on «breeders-eye»

- Need to create environment to encourage and enable breeders to:
  - ➢ be open to change
  - ➢ try new approaches
  - ➢ collaborate across disciplines and work as part of a team
  - ➢ ....to step out and seek information from areas that are not scientific disciplines

syngenta foundation
for sustainable
agriculture

Public training courses compendium

	Topic	Title	Link	Format	Provider	Estimated Cost (USD)
42	Advanced Experimental Design	Correlation, Regression, Covariance, and Biplot Analysis in Agronomic Research	https://scsdistance.tamu.edu/contin	Online Course	Texas A&M	227
43	Advanced Experimental Design	Lattice Designs	http://www.extension.org/pages/68(	Webinar	Plant Breeding and Genomics eXtension Community of Practice	0
44	Advanced Experimental Design	Introduction to the Augmented Experimental Design Webinar	http://www.extension.org/pages/60	Webinar	Plant Breeding and Genomics eXtension Community of Practice	0
45	Advanced Experimental Design	Type-2 Modified Augmented Design	https://connect.unl.edu/p5rpwq7pm	Webinar	University of Nebraska	0
46	Advanced Experimental Design	Augmented Lattice Square Design for Early Generation Evaluation of Spring Barley	https://connect.unl.edu/p7tg6m2p4	Webinar	University of Nebraska	0

Contributed by Dr Heather Merk, Head Syngenta Breeding academy

syngenta foundation for sustainable agriculture

Demand-led training modules – ideas

- Value proposition for change

- Visioning and foresight for setting targets

- Customers and information investigation

- Variety design and setting success standards

- New variety delivery, development timelines and decision-making

syngenta foundation
for sustainable
agriculture