

Recent Developments in the Cotton Market & Advanced Cotton Technologies for Africa

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Executive Director

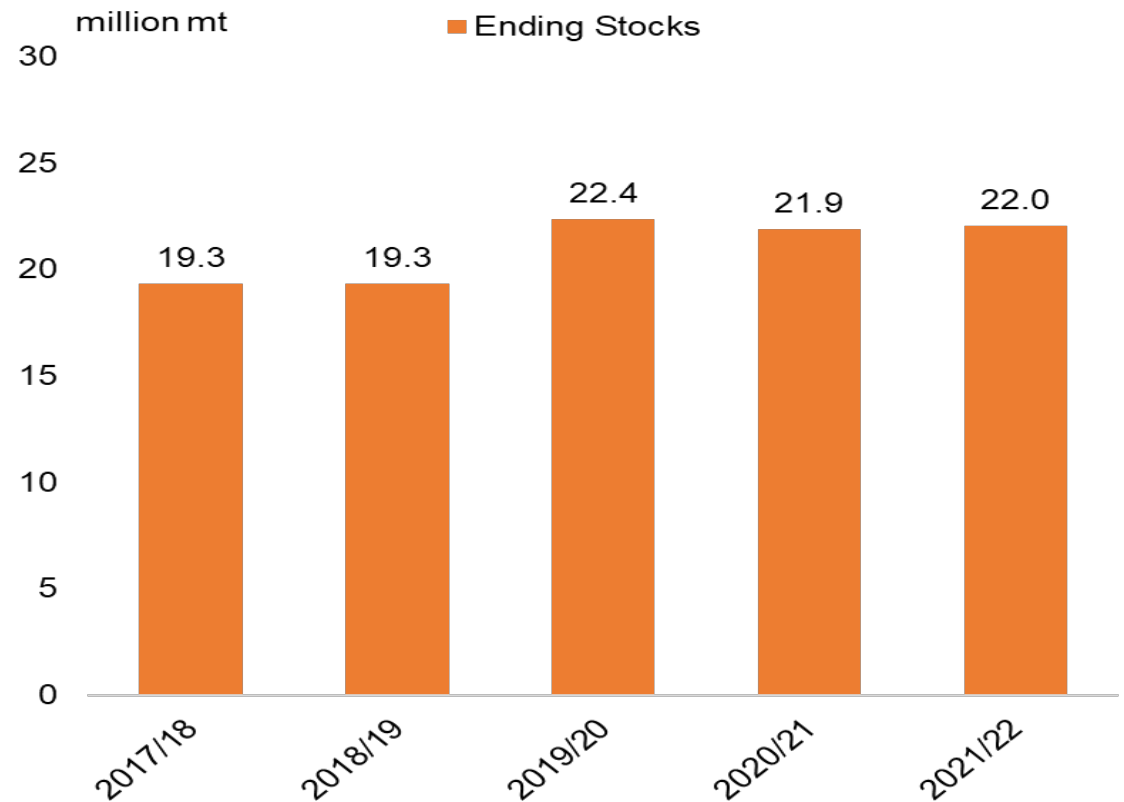
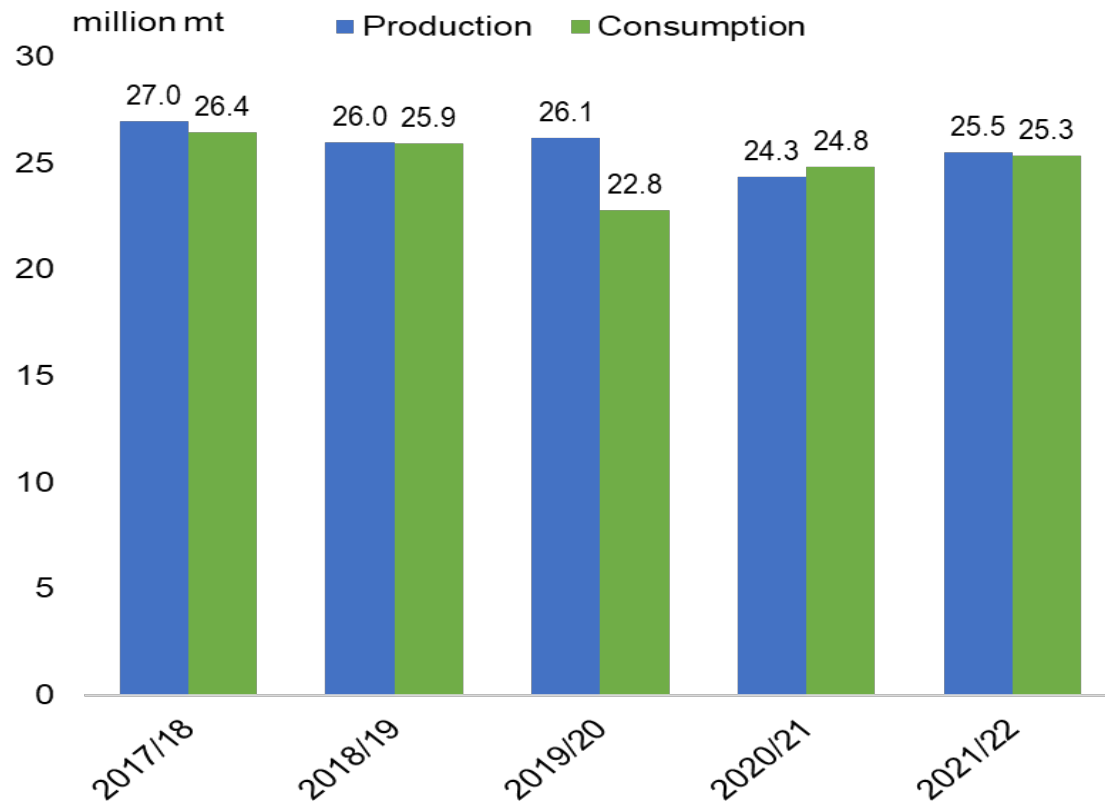
International Cotton Advisory Committee



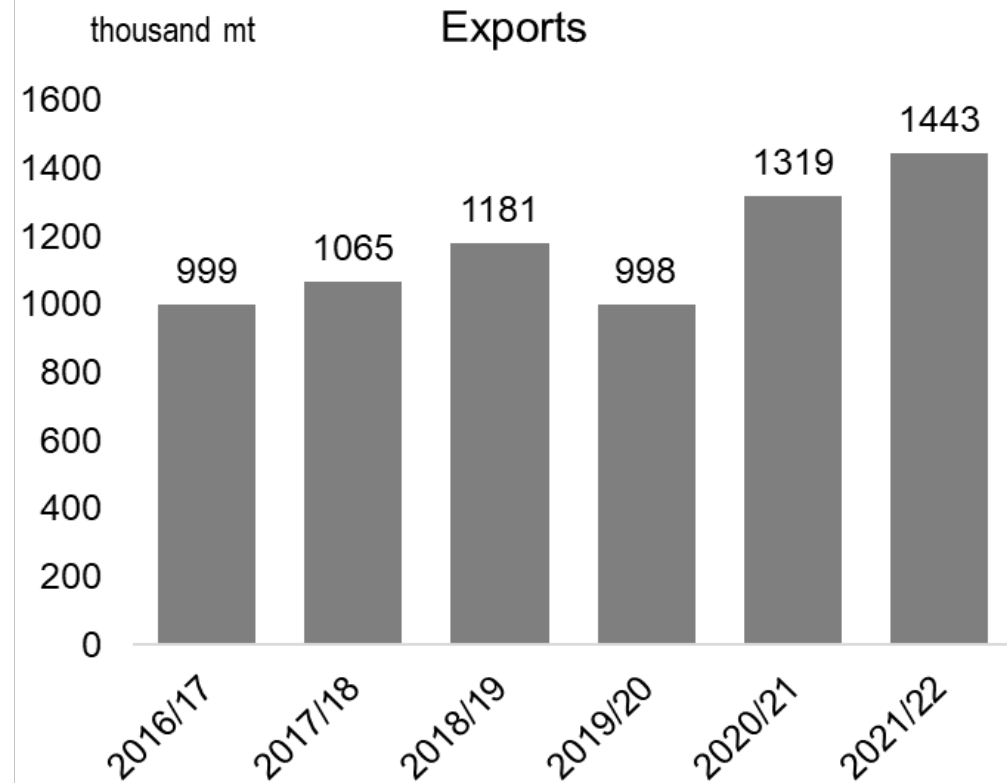
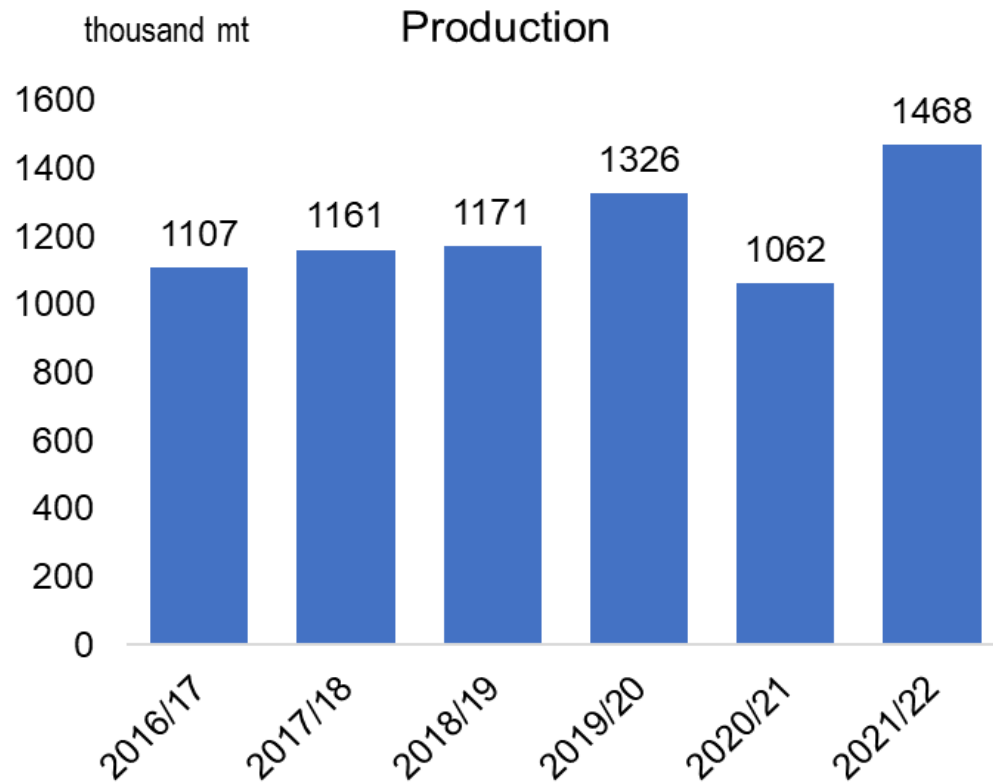
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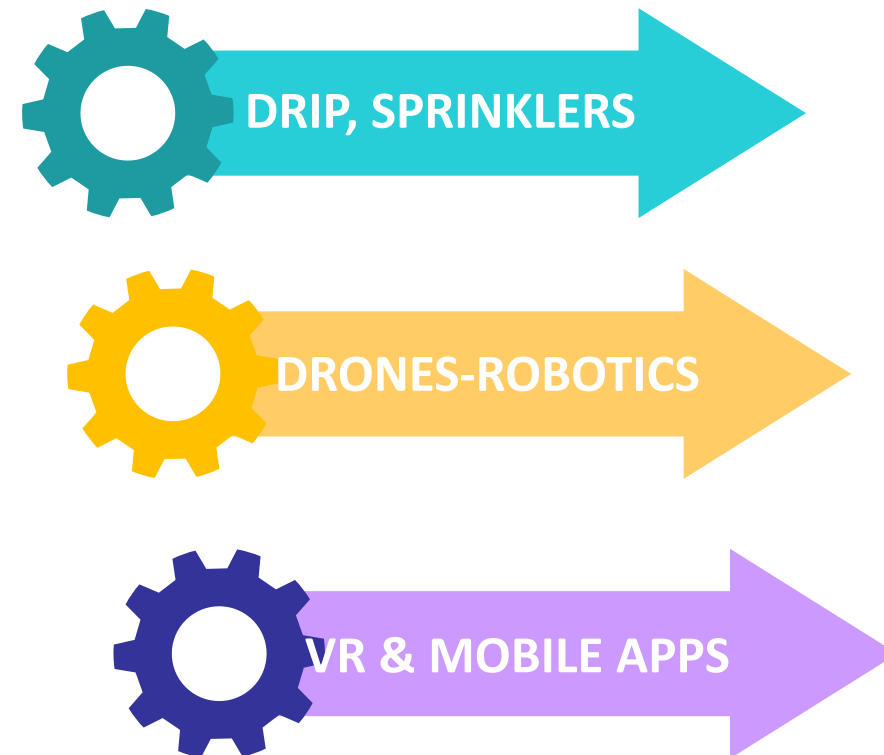
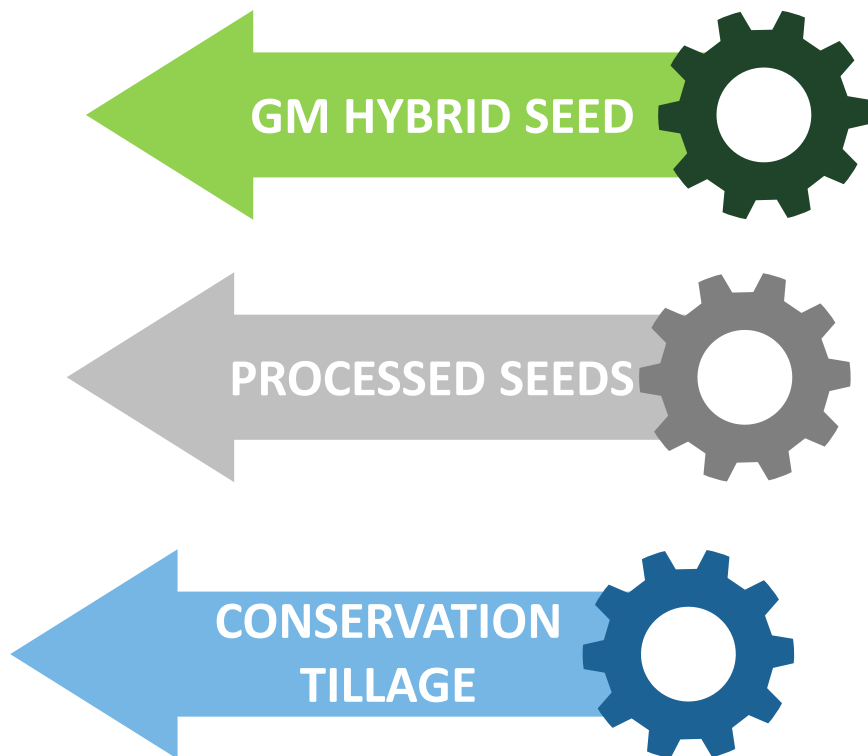
Cotton Production and Consumption expected to Increase in 2021/22



Recovery for Production and Exports for Africa

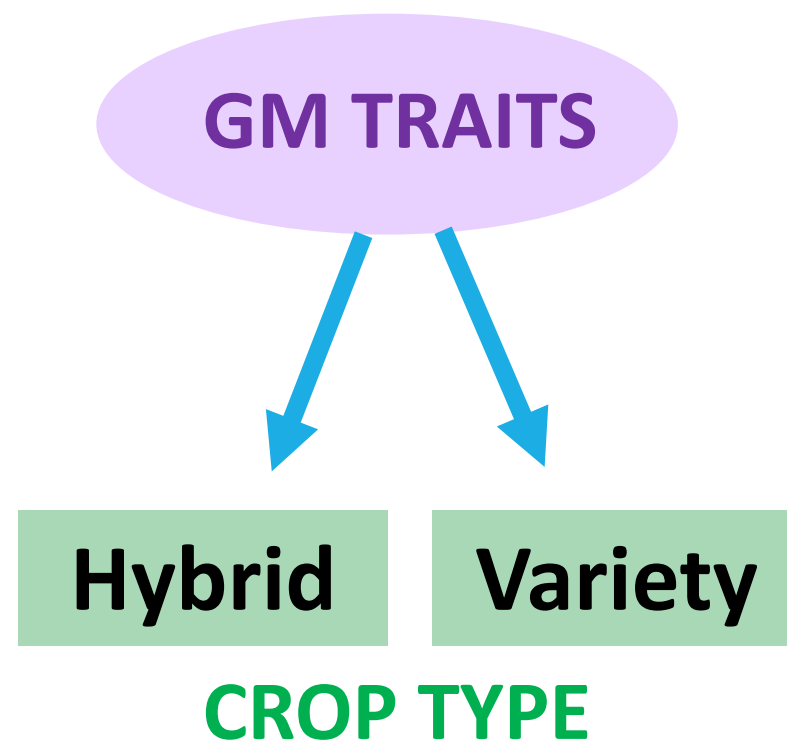


Which Technologies Are Relevant to Africa?





GM Hybrid Cotton Seed



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GM Hybrid Cotton Seed

- Affordability?
- Input responsive
- Recurrent purchases
- Sustainability?
- Suitability for rainfed conditions?



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12 Biotech Cotton Countries in Africa



APPROVED

Sudan (2012)

South Africa (1998)

Burkina Faso (2009-2016)

Nigeria (2018)

Ethiopia (2018)

Eswatini (2018)

FINAL STAGES

Malawi, Kenya & Cameroon

STATUS UNCLEAR

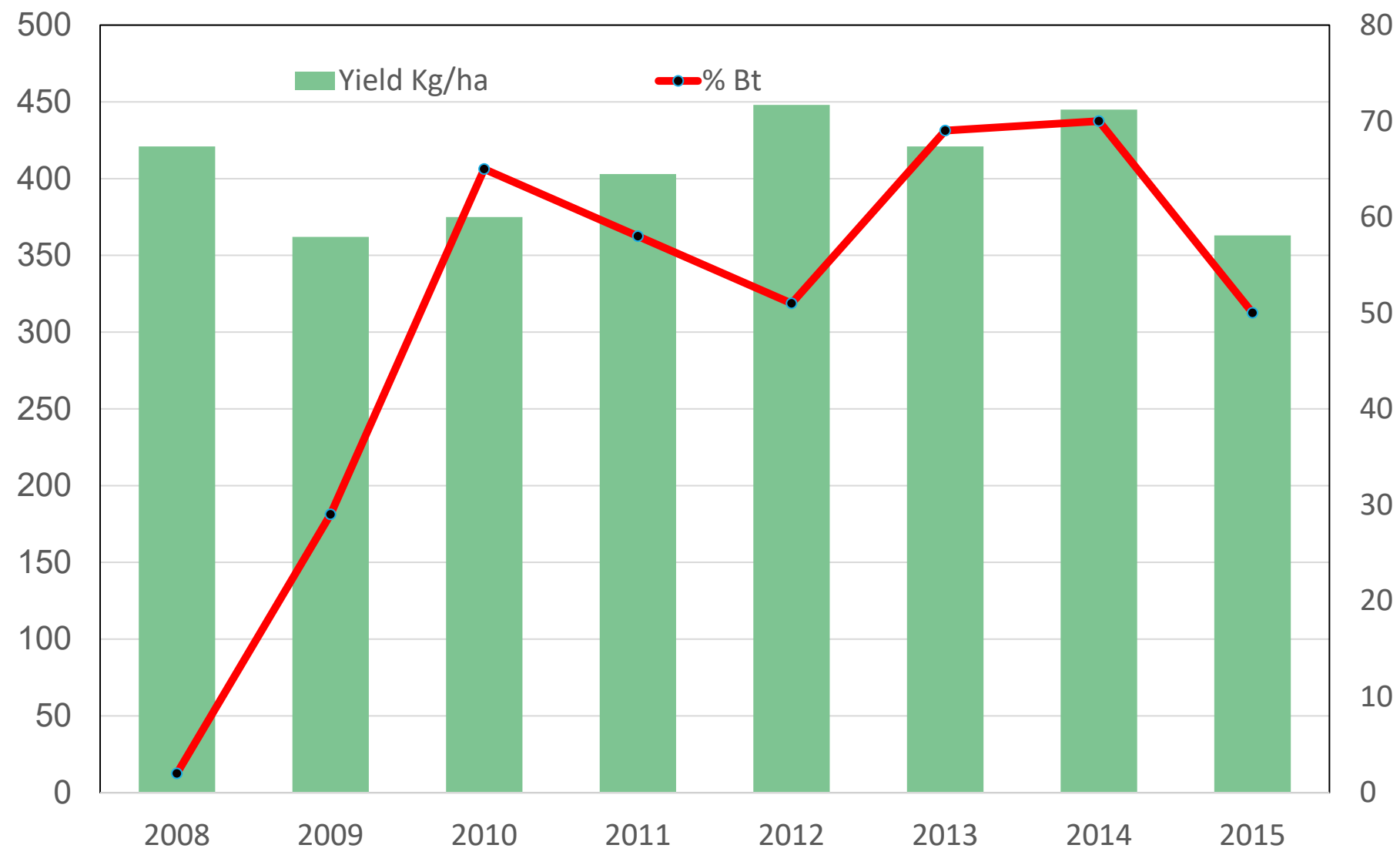
Uganda, Senegal & Zimbabwe



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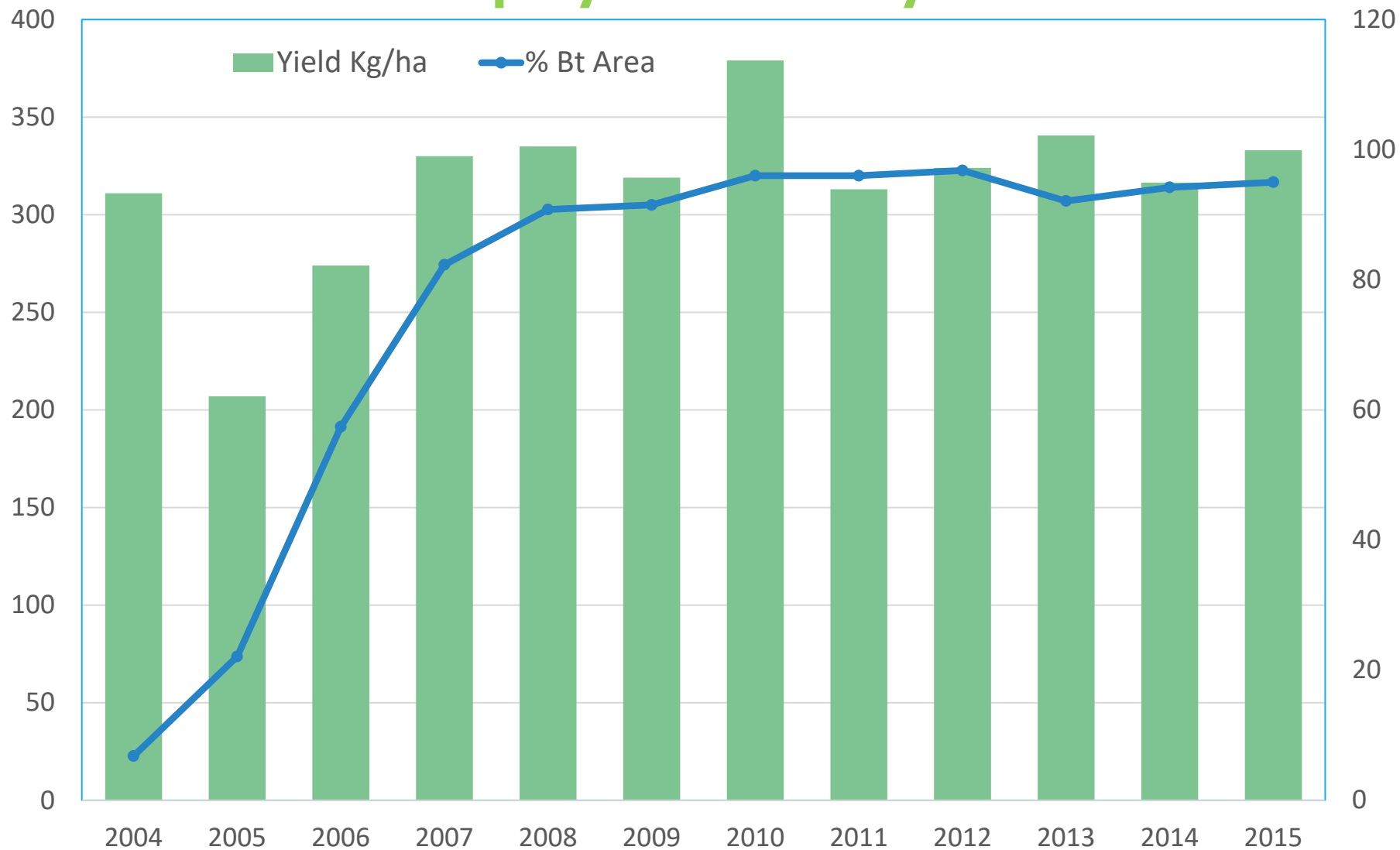
Bt-cotton had no impact on yields in Burkina Faso (100% rainfed)

Insecticide Sprays declined from 5 to 1.5

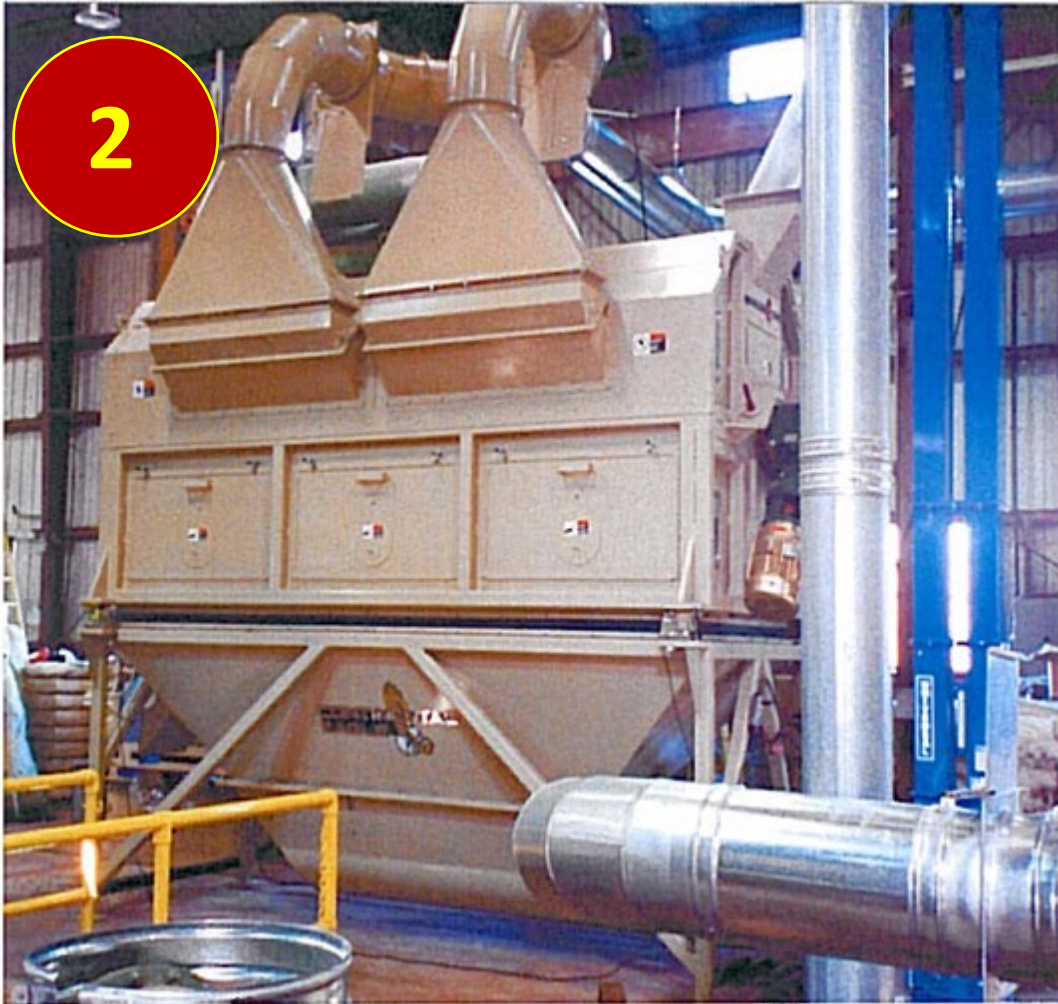


Bt-hybrid cotton had hardly any impact on yields in Maharashtra (100% rainfed)

Insecticide Sprays declined by 20-60%



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PROCESSED SEED

Most African countries use fuzzy seed.

- Poor germination
- Weak plant stand
- Spread diseases
- Seed wastage
- Poor yields

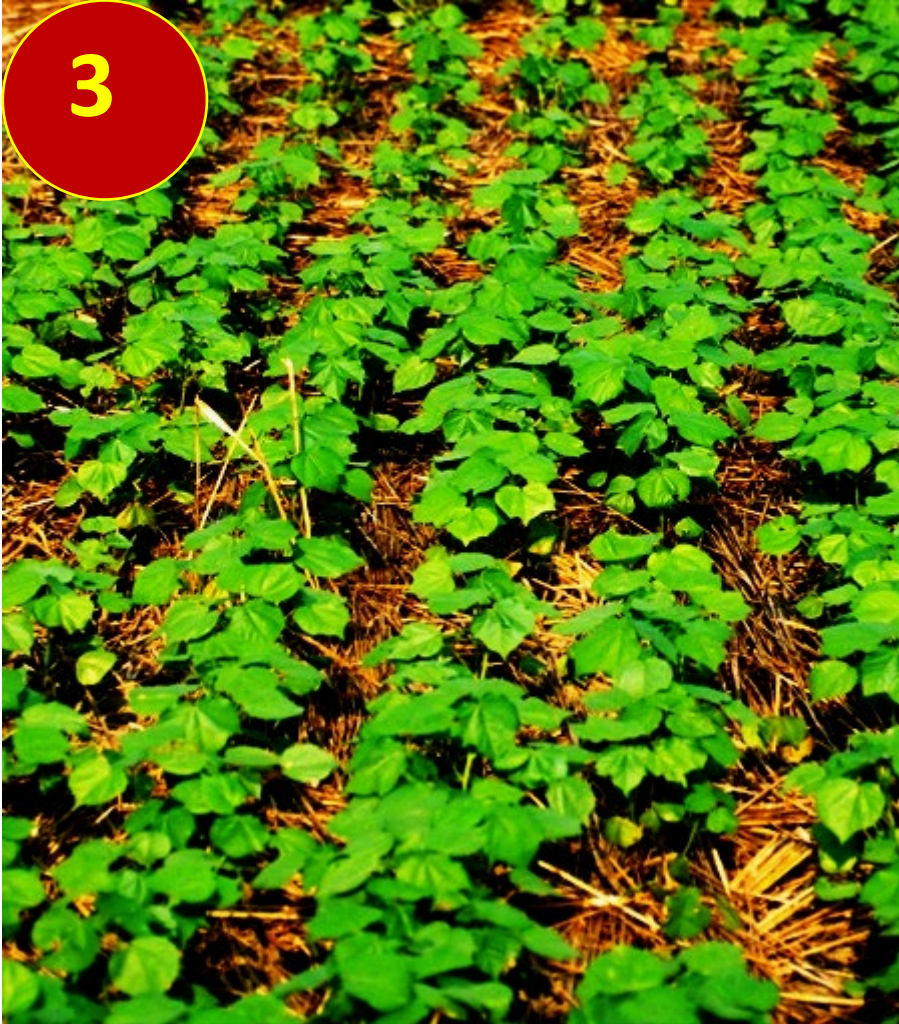


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Conservation Tillage

More than 70% area in Brazil and USA is under Conservation Tillage

- Simple and easy to adopt
- Reduces weeds
- Prevents soil erosion
- Improves soil organic matter
- Legume cover crops fix nitrogen
- Helps to combat climate change



4



DRIP & SPRINKLERS

Pressurised irrigation
High adoption in China

- **Saves water**
- **Enhances yields**
- **Expensive**



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DRONES, ROBOTICS AND SENSORS

5



- Electronic sensors for pheromone monitoring
- Satellite technology to predict soil moisture and nutrient status
- Small machines for stalk cutting, tillage, sowing, weeding and picking designed in India and China will be most relevant



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NOVEL EXTENSION GADGETS



- Relevant in COVID times
- Virtual training
- Two-way interactive in local languages
- Artificial Intelligence
- Knowledge at fingertips



Virtual Reality Training



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Recommendations

- 1. Don't Use Bt hybrids in rainfed Africa.**
- 2. Use delinted and graded seeds.**
- 3. Practice conservation tillage.**
- 4. Use bio-mulches, water harvesting, and planting on ridges and furrows.**
- 5. Consider small machines, tools and implements for small holdings.**
- 6. Ask ICAC about Virtual Reality training and the Soil and Plant Health App.**



Thank You



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