Cotton Research in the 21st Century

M. Rafiq Chaudhry
Head, Technical Information Section

TECHNICAL INFORMATION SECTION

Objectives:
I. Provide update on cotton production research
II. Gather information on cotton research programs
III. Facilitate communications among researchers
TECHNICAL INFORMATION SECTION

I. Provide update on cotton production research:

THE ICAC RECORDER

Review articles

Technical Seminar at Plenary Meetings

II. Gather information on cotton research programs

1. Cost of Production of Raw Cotton – 2013
III. Facilitate communications among researchers

Regional Cooperation

1. Latin American Association for Cotton Res & Development – ALIDA
2. Interregional Cooperative Network on Cotton for the Mediterranean and Middle East Regions
4. Asian Cotton Research and Development Network

World Cotton Research Conferences

WCRC – 6 Goiania, Brazil (May 2-6, 2016)
Cotton Research in the 21st Century

What Happened in the 20th Century

1. Cotton breeding adopted in almost every cotton producing country
2. Chemical fertilizers were commercialized
3. Pesticide use became an integral component of production technology
4. Agronomic emphasis increased

*Turned cotton into a ‘Technical Crop’*
Important Cotton Events of the 20\textsuperscript{th} Century

1. Upland cotton spread to many more countries
2. Production increased by 400%
3. Area increased by 50%
4. Yield increased by 283%

World Average Cost of Lint Production

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost (US$/Kg Lint)</th>
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</thead>
<tbody>
<tr>
<td>2000/01</td>
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</tr>
<tr>
<td>2003/04</td>
<td>1.11</td>
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<td>1.04</td>
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<tr>
<td>2009/10</td>
<td>1.22</td>
</tr>
<tr>
<td>2012/13</td>
<td>1.50</td>
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</tbody>
</table>
Structure of Cost of Lint Production –
World Average

- Seed: 7%
- Weeding: 21%
- Fertilizers: 18%
- Insecticides: 11%
- Irrigation: 5%
- Harvesting: 16%
- Gin Bing: 13%
- Others: 9%

Cost of Weeding

2000/01 2003/04 2006/07 2009/10 2012/13

US$/Kg Lint

0.00 0.09 0.10 0.13 0.21 0.31
Cost of Fertilizer

US$/Kg Lint

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost of Fertilizer</th>
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</thead>
<tbody>
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<td>2012/13</td>
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Cost of Insecticides

US$/Kg Lint

<table>
<thead>
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<th>Cost of Insecticides</th>
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</thead>
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<tr>
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<tr>
<td>2012/13</td>
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</table>
21st Century Expectations!

1. At least double yields
2. No increase in area expected, rather lower area.
3. Insecticides have to be eliminated
4. In lab breeding of varieties
5. Capability to induct special features, one-by-one

6. Planting seed industry will flourish
7. Develop less expensive means of producing crops
8. Add value to by-products of cotton
9. International cooperation will increase
10. All mechanized production

*Treat cotton as a ‘Technical Crop’*
International Cotton Researchers Association

Objectives:
- International voice on cotton research
- Organize world cotton research conferences
- Strengthen networking among cotton researchers
- Facilitate rapid dissemination of research results
- Help identify priority areas of cotton research
ICRA - Membership

• All researchers
  - Private or public
  - Retired or in service
  - ICAC member and non member countries

ICRA – Logo

Join at: www.icracotton.org
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