Public-Private Partnership in India-a Need for breakthrough in Wheat Production

Gurdev Singh, O.P. Shringi and Vineet Kumar
Wheat: Area, Production and Productivity in India

Source: Ministry of Agriculture, Govt of India, 2013
Productivity of Wheat Growing States in India

<table>
<thead>
<tr>
<th>State</th>
<th>Yield (t/ha)</th>
</tr>
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<tbody>
<tr>
<td>UP</td>
<td>3.1</td>
</tr>
<tr>
<td>MP</td>
<td>2.5</td>
</tr>
<tr>
<td>Punjab</td>
<td>4.6</td>
</tr>
<tr>
<td>Haryana</td>
<td>4.5</td>
</tr>
<tr>
<td>Bihar</td>
<td>2.4</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>3.2</td>
</tr>
<tr>
<td>Gujarat</td>
<td>3.0</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>1.5</td>
</tr>
<tr>
<td>West Bengal</td>
<td>2.8</td>
</tr>
<tr>
<td>Uttarakhand</td>
<td>2.3</td>
</tr>
<tr>
<td>Himachal Pradesh</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Source: DWR E Newsletter 2013
Wheat - Seed Replacement Over Years

Source: Seednet.gov.in, 2014
Certified/Quality Seed Distribution of Wheat (1983-2012)
Public Sector Organisations

- 51 ICAR Institutes
- Directorate of Wheat Research
- 17 National Research Centres
- 79 AICRPs/AINPs
- 634 Krishi Vigyan Kendras (KVKS’s)
- 56 State Agricultural Universities
- 16 SSC (State Seed Corporations)
- 22 Seed Certification Agencies
- 104 Seed Testing Laboratories
Role of Private Sector in Wheat Seed Market

• Seeds multiplication and distribution of public varieties
• Approx. 400 private seed companies, 35% involved in wheat seed production/marketing
• Private sector accounts for 53% of market in terms of turnover
Role of Private Sector – Contd.

• Private sector started seed business without their own R&D, i.e. Production & Marketing of Public Varieties

• With PVP policy enforcement:
  – Large private companies and MNC’s entered the seed business
  – Private sector has also started focus on Self Pollinated Crops

• Private companies like DCM SHRIRAM LTD providing complete package to the farmers viz., Seeds, Fertilisers, Crop Care Chemicals, PGR & Crop Advisory Services
Strengths of Private Sector

• Market Focused R & D
• Global access to technological developments
• Professional Management
• Growth Oriented
Marketing of Public Varieties - Problems of Private Sector

- Compared to other crops, wheat business is not very attractive
- Competition for Seed Cost as government provides subsidized seed
- Difficult to calculate demand forecast (Losses on unsold Stocks)
Complimentary Roles of Public and Private Sector in India

Public Private Partnership Areas

- Private Distribution of Public Technology
- Private support for Public Research
- Public-Private collaborative research
- Public-Private Partnership in Marketing & Extension
DCM SHRIRAM Ltd. On Growth Path

• Started R & D in 2000
• Released two varieties in 2009 from CIMMYT material
• Super 152 & Super 172 suitable for NWPZ & EZ
• Super 111 released in 2012 for CZ from in-house R&D

<table>
<thead>
<tr>
<th>Crop Season</th>
<th>Quantity (tons)</th>
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<tbody>
<tr>
<td>2009-10</td>
<td>70</td>
</tr>
<tr>
<td>2010-11</td>
<td>700</td>
</tr>
<tr>
<td>2011-12</td>
<td>4500</td>
</tr>
<tr>
<td>2012-13</td>
<td>12500</td>
</tr>
<tr>
<td>2013-14</td>
<td>17000</td>
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Proprietary Varieties’ Sale – Share of Private Companies 2013-14
## DCM SHRIRAM’s Field Product Promotion Activities

<table>
<thead>
<tr>
<th></th>
<th>Crop Shows/Field Days</th>
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<tbody>
<tr>
<td></td>
<td>2010-11</td>
</tr>
<tr>
<td><strong>Events</strong></td>
<td>Events</td>
</tr>
<tr>
<td><strong>No.of Farmers</strong></td>
<td>No.of Farmers</td>
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<tr>
<td>1955</td>
<td>111904</td>
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<tr>
<td>111904</td>
<td>3570</td>
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Glimpses Product Promotion Activities
Glimpses Product Promotion Activities
SUPER -111 Recognised by Ministry of Agriculture

New Delhi, February 10, 2014
Fast Delivery System of New varieties

• During variety Identification, breeders should have at least 50 tons seed to kick start the multiplication
• Adoption of low seed rate in the initial phase ~70-80% of recommended rate
• Initial marketing in small packets to reach in larger geographies
THANKS
Factors Affecting Varietal Adoption

- Availability of well-identified and adapted varieties
- Adequate production
- Demand Forecast
- Market Intelligence
- Transport and Storage arrangements
- Quality control program
- Publicity & Promotion
Seed Distribution System in India

STATE SEED CORPORATIONS

AGRICULTURE UNIVERSITY
KRIBHCO
IFFCO

FARMERS

DEALERS
SALE COUNTERS
SOCIEDTES
SCHEMES
MINI KIT

FARMERS COOPERATIVES
SELF SALE

PRIVATE SECTOR

SAU’S
ICAR (DWR)
Glimpses of Lab to Land Activities