Status & Prospects of Specialty fertilizers in India

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Specialty Fertilizers- Definition

• Fertilizers applied in Special condition of Soil & plant

• Fertilizers applied for Specialized action in plant
Specialty Fertilizers- Understanding

• All Water soluble Fertilizers

• All Secondary & Micronutrients

• Slow & Controlled release fertilizers – NCU, SCU, UDP etc

• Area & Crop Specific Fertilizers- Customized fertilizers, Fortified fertilizers

Water Soluble fertilizers (WSF)

100% Water soluble fertilizers, with low salt, chloride content and high fertilizer use efficiency.

Fertilizer Use efficiencies of conventional fertilizers
N- 30 - 45%
P- 10-30%
K- 50%

This leads to lower return on money spent on per unit of fertilizer, along with increased soil salinity.

Source: IFA, World Fertilizer Use Manual

FUE of WSF @ 80-85%?
Growth of WSF in India

Starting from just two players in 1993-94, the number has increased to 282 in 2013-14. Present market size is 130,000 to 150,000 MT growing at 20%.

WSF compounds

<table>
<thead>
<tr>
<th>Name</th>
<th>N</th>
<th>P</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAP</td>
<td>12</td>
<td>61</td>
<td>0</td>
</tr>
<tr>
<td>MKP</td>
<td>0</td>
<td>52</td>
<td>34</td>
</tr>
<tr>
<td>Pot. Nitrate</td>
<td>13</td>
<td>0</td>
<td>45</td>
</tr>
<tr>
<td>SOP</td>
<td>0</td>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td>Urea Phos.</td>
<td>17</td>
<td>44</td>
<td>0</td>
</tr>
</tbody>
</table>

All other grades are prepared by blending of these compounds.
Policy Reform for WSF

• General Specifications for WSF mixtures
• Freedom to introduce new WSF grades
• Limit for NPK kept at minimum 40 units & 30 units for any 2 nutrients

Further improvement in policy: allow fortification of secondary & micronutrients

Growth prospect - Indicators

➤ Progressive Policy Reforms
➤ Rationalisation of subsidy on Bulk Fertilizers
➤ Significant increase in subsidy support for Micro Irrigation in budget for 2015-16 - 854 mill $
➤ Area under Drip irrigation is highest in World (2.82 mill ha)
➤ Shift towards high Value crops
Impact of NBS

Consumption of WSF

TATA CHEMICALS LIMITED

Impact of Fiscal Policy on WSF

- Leverage to farmers for his financial resource allocation
- 54% increase in consumption of WSF in 2010-11 post NBS on Bulk Fertilizers
Secondary & Micronutrients

- 35% growth in consumption of S & Mg products in 2010-11 post NBS

- 45% growth in consumption of Zn, B, Fe & Mn products in 2010-11 post NBS

Impact of NBS
Impact of NBS

Fertilizer consumption in India- 000 MT

- FY 2010
- FY 2011
- FY 2012
- FY 2013
- FY 2014

- Under NBS
- Speciality (secondary Axis)

Slow & Controlled release fertilizers

- Neem Coated Urea
- Sulphur Coated Urea
- Urea Deep Placement (UDP)
Neem Coated Urea

- Current production > 5 mill MT per annum likely to double in view of removal of production cap
- 4-7% increase in crop yield reported by Industry based on large scale demonstrations
- Increase in demand by farmers predominantly in rice growing areas

Urea Deep Placement (UDP)

- IFDC promoted Technology
- Successfully implemented in Bangladesh
- R & D efforts by Tata chemicals
- Registered in FCO
Advantages of UDP

• Urea dose reduction by 20%
• Rice yield increase by 25%
• Nitrogen Use Efficiency > 45%

UDP- Application Technology

• Labour intensive Technology
• Applicator development in process by IIT graduates
Area & Crop Specific Fertilizers

- 44 grades of Customized Fertilizers approved
- Production & sale by Nagarjuna, Indo Gulf Fertilizers & Tata Chemicals
- Current sales more than 50,000 MT
- Demand generation - Challenging

Thank You