TRADITIONAL spraying equipment
- Pressure gauge.
- Tank pressure varies considerably.
- Nozzle flow rate varies considerably.
- Operator decides when to STOP.

Low Pressure CFV
- Nozzle flow rate constant.
- Automatic STOP.

NEW TOOLS TO IMPROVE IRS APPLICATIONS

Low Pressure Control Flow Valve (CFV): Uniform insecticide Dosage

<table>
<thead>
<tr>
<th>TANK PRESSURE</th>
<th>FLOW RATE</th>
<th>DOSAGE*</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.8 bar / 55psi</td>
<td>0.60 l/min.</td>
<td>400 mg/m²</td>
</tr>
<tr>
<td>3 bar / 40psi</td>
<td>0.60 l/min.</td>
<td>400 mg/m²</td>
</tr>
<tr>
<td>1.8 bar / 25psi</td>
<td>0.60 l/min.</td>
<td>400 mg/m²</td>
</tr>
</tbody>
</table>

* Calculation made using BAYER FICAM VC (125 gm) insecticide and traditional spraying equipment.

Conclusions:
1. Better efficiency: Uniform dosage of insecticide is sprayed during all the operation.
2. Saving water: 20% less water is used (8 ltr. instead of 10 ltr.).

Low Pressure Control Flow Valve (CFV): Simplifying Spraying Technique

most important parameters (IRS)
1. Pressure in the nozzle/tank.
2. Distance from the surface: 45 cm.
3. Spray speed: 2.5 sec/m.

with regulator not easy
1. Need of frequent checking of the pressure gauge.
2. Dark places: Difficult to see the manometer properly.

without regulator easier to do the job properly.
No need to check the pressure.

NEW ADVANCED MATERIALS and new MANUFACTURING PROCESSES

New possibilities for SPRAYER DESIGN to meet the most severe international standards related to COMFORT and SAFETY of IRS equipment.

Low-Erosion NEW ADVANCED NOZZLES

More competitive and durable nozzles
Recent developments in new materials and computational fluid dynamics (CFD) software.

Nozzle Protector to avoid BLOCKAGES

Unprotected nozzle
- Pressure gauge.
- Tank pressure varies considerably.
- Nozzle flow rate varies considerably.
- Operator decides when to STOP.

Nozzle protection
- Automatic STOP.
- Nozzle flow rate constant.
- Protects the tank from excess of pressure (4 bar).

Reducing Operators Contamination Risk

Recent developments in new materials and computational fluid dynamics (CFD) software.

SPRAYING EQUIPMENT

<table>
<thead>
<tr>
<th>CFV + Low drift nozzles</th>
<th>Traditional Sprayer</th>
</tr>
</thead>
<tbody>
<tr>
<td>35-20%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Conclusions:
Considerable variation in the DOSAGE of insecticide (approx. ±25%) measured on wall surfaces.