<table>
<thead>
<tr>
<th>Product name</th>
<th>Culture type</th>
<th>Applications</th>
<th>Main Features and Benefits</th>
</tr>
</thead>
</table>
| FLAV-ANTAGE® DHF  | *Debaryomyces hansenii* | Semi-hard, pressed cheeses   | • De-acidify the surface fast for other culture(s) to grow  
• Prevent undesirable flora growth  
• Produce mild fruity and creamy flavor notes |
| FLAV-ANTAGE® DHR  | *Debaryomyces hansenii* | Soft lactic and goat cheeses | • Slowly de-acidify the surface for other culture(s) to grow  
• Prevent undesirable flora growth  
• Produce strong fruity flavor notes |
| FLAV-ANTAGE® KL   | *Kluyveromyces lactis* | Most cheese technologies     | • Soften the curd  
• Reduce bitterness  
• Limit post acidification  
• Produce fruity (apple) flavor notes |
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</table>
| FLAV-ANTAGE® GCA | *Geotrichum candidum* | Semi-hard and soft cheeses     | • Deliver an intermediate, white color surface  
                          • Produce sulfur compounds and fruity (apple) flavor notes |
| FLAV-ANTAGE® GCB | *Geotrichum candidum* | Bloomy soft cheeses            | • Deliver a filamentous, white color surface (used with *Penicillium c.* to decrease mycelium density)  
                          • Strongly reduce bitterness  
                          • Produce mild fruity flavor notes |
| FLAV-ANTAGE® GCC | *Geotrichum candidum* | Camembert, Goat, Pressed cheeses | • Deliver a slightly wavy, intermediate, white to creamy white color surface  
                          • Produce fruity, flowery and strong cowshed flavor notes |
| FLAV-ANTAGE® GCD | *Geotrichum candidum* | Camembert, Goat, Pressed cheeses | • Deliver a thin, yeast-like, wavy, creamy white color surface  
                          • Produce fruity and intense creamy flavor notes |
| FLAV-ANTAGE® GCM | *Geotrichum candidum* | Bloomy soft cheeses            | • Deliver a filamentous, white color surface  
                          • Produce fruity and mild creamy flavor notes |
### Brevibacterium Portfolio

<table>
<thead>
<tr>
<th>Product name</th>
<th>Culture type</th>
<th>Applications</th>
<th>Main Features and Benefits</th>
</tr>
</thead>
</table>
| FLAV-ANTAGE® BLE3 | *Brevibacterium linens* | Washed-rind and smeared-rind soft cheeses | • Deliver a beige orange surface color (fast)  
• Dry non-sticky touch  
• Produce sulfur compounds and strong cowshed flavor notes |
| FLAV-ANTAGE® BLIC | *Brevibacterium linens* |  | • Deliver a red orange surface color (intensified when used during cheese wash)  
• Produce fruity and creamy flavor notes |
| FLAV-ANTAGE® BLO | *Brevibacterium linens* |  | • Deliver an orange surface color (stable)  
• Wet sticky touch  
• Produce fruity flavor notes |

### Staphylococcus xylosus Portfolio

Typically used in combination with other cultures, specifically *Brevibacterium linens*.

<table>
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<th>Main Features and Benefits</th>
</tr>
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</table>
| FLAV-ANTAGE® MIC2 | *Staphylococcus xylosus* | Washed-rind and smeared-rind soft cheeses | • No impact on surface color  
• Soften the curd and produce fruity flavor notes |
| FLAV-ANTAGE® XULY | *Staphylococcus xylosus* |  | • Deliver an orange surface color (earlier than Brevibacterium linens)  
• Soften the curd and produce fruity flavor notes |
<table>
<thead>
<tr>
<th>Product name</th>
<th>Culture blend</th>
<th>Applications</th>
<th>Main Features and Benefits</th>
</tr>
</thead>
</table>
| FLAV-ANTAGE® FAA1 | BL, SX, Yeasts, Arthrobacter                       | Washed-rind soft and semi-hard cheeses | • Produce strong fruity (apple) and creamy flavor notes  
• Deliver an orange/red surface color |
| FLAV-ANTAGE® FAA4 | GC, BL, SX, Yeasts, Arthrobacter                   | Bloomy and washed-rind soft cheeses | • Deliver a thin velvety white and orange surface color  
• Produce strong fruity (Munster) and cowshed flavor notes |
| FLAV-ANTAGE® FAPM | GC, BL, SX, Yeasts, Arthrobacter                   | Washed-rind, soft, and pressed cheeses | • Produce strong typical bloomy soft cheese flavor notes  
• Deliver a white velvety surface (surface turns beige with aging) |
| FLAV-ANTAGE® FETRX1 | GC, BL, Yeasts, Arthrobacter                      | Goat, soft and semi-hard cheeses | • Produce fresh buttery and creamy flavor notes  
• Deliver a thin, dry, velvety white surface |
| FLAV-ANTAGE® LMC  | BL, SX, Yeasts                                     | Washed-rind soft cheeses             | • Deliver a soft melty mouthfeel  
• Produce fresh buttery and creamy flavor notes  
• No impact on surface color |
## Penicillium Portfolio (1)

Used in bloomy soft cheese technologies. See Applications for specifics.

<table>
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<tr>
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<th>Applications</th>
<th>Main Features and Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>VELV-TOP® PC 12</td>
<td><em>Penicillium candidum</em></td>
<td>All</td>
<td>• Deliver an intermediate, white color surface&lt;br&gt;• Moderate proteolytic and lipolytic activities&lt;br&gt;• Provide mild antifugal (mucor) activity</td>
</tr>
<tr>
<td>VELV-TOP® PC C2</td>
<td><em>Penicillium candidum</em></td>
<td>All (thermophilic)</td>
<td>• Deliver a dense, white color surface&lt;br&gt;• Moderate proteolytic and lipolytic activities</td>
</tr>
<tr>
<td>VELV-TOP® PC IB1</td>
<td><em>Penicillium candidum</em></td>
<td>Creamy, rich</td>
<td>• Deliver a thin surface</td>
</tr>
<tr>
<td>VELV-TOP® PC PR1</td>
<td><em>Penicillium candidum</em></td>
<td>All (thermophilic)</td>
<td>• Deliver a very thin, very white color surface&lt;br&gt;• Produce little to no flavor (low proteolytic and lipolytic activities)</td>
</tr>
<tr>
<td>VELV-TOP® PC PSM2</td>
<td><em>Penicillium candidum</em></td>
<td>Anti mucor</td>
<td>• Provide strong antifugal (mucor) activity early in the process&lt;br&gt;• Deliver a dense, breakable surface</td>
</tr>
</tbody>
</table>
## Penicillium Portfolio (2)

Used in bloomy soft cheese technologies. See Applications for specifics.

<table>
<thead>
<tr>
<th>Product name</th>
<th>Culture type</th>
<th>Applications</th>
<th>Main Features and Benefits</th>
</tr>
</thead>
</table>
| VELV-TOP® PC R | *Penicillium candidum* | All (mesophilic) | • Deliver a very dense, white color surface  
• Produce strong traditional French Camembert flavor notes |
| VELV-TOP® PC RIND01 | *Penicillium candidum* | All | • Deliver a very velvety surface  
• Produce little to no flavor (low proteolytic and lipolytic activities) |
| VELV-TOP® PC TAM1 | *Penicillium candidum* | Stabilized (thermophilic) | • Produce low flowery flavor notes |
| VELV-TOP® PC TAM5 | *Penicillium candidum* | All | • Deliver a dense homogeneous white color surface (moderate growth speed)  
• Low proteolytic and lipolytic activities |
| VELV-TOP® PC TN | *Penicillium candidum* | All | • The best Penicillium in the world!  
• Deliver a thin, very white color surface (high growth speed)  
• Produce little flavor |
## Penicillium roqueforti Portfolio

Used in soft and semi-soft blue cheese technologies.

<table>
<thead>
<tr>
<th>Product name</th>
<th>Color</th>
<th>Proteolysis</th>
<th>Lipolysis</th>
<th>Growth speed</th>
<th>Salt tolerance</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLAV-ANTAGE® Blue PR5</td>
<td>Dark blue green</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>Gorgonzola (mild)</td>
</tr>
<tr>
<td>FLAV-ANTAGE® Blue PR14</td>
<td>Dark blue</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>Gorgonzola naturale, Danablu</td>
</tr>
<tr>
<td>FLAV-ANTAGE® Blue PR16</td>
<td>Bright dark blue</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>Stilton, Danablu</td>
</tr>
</tbody>
</table>

1 = Low     2 = Medium-Low    3 = Medium-High    4 = High