

HYPRO[®] NOZZLES

DEFY 3D NOZZLES

INCLINED FLAT FAN NOZZLE FOR OPTIMUM SPRAY COVERAGE

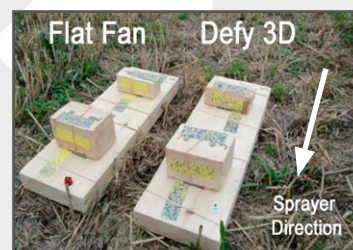


FEATURES & BENEFITS

Defy 3D nozzles have been engineered to achieve the highest spray coverage. By eliminating the smallest droplets they also reduce drift by 60-75% and are the first flat fan nozzle to be LERAP rated.

The nozzles are inclined to improve coverage on vertical targets such as soil clods and small grass weeds, they also offer superior coverage underneath crop canopies.

- Developed with Syngenta to maximise the performance of Defy[®] herbicide
 - Increase blackgrass control by up to 6% compared to a flat fan nozzle in Syngenta UK's pre-emergence field trials
 - Optimum drop size for coverage, fewer drops bounce off or drift away
- Spray angle and incline combine to give the best possible evenness of spray distribution along the boom
- 60-75%+ drift reduction compared to flat fan nozzles giving more spray days and better timeliness of spraying, achieving 2 star LERAP rating.
- For best results:
 - Apply in alternating directions along the boom
 - Spray between 50-75 cm boom height
 - Use between 2 and 3 bar and at 12-14 kph
- Available sizes 03, 035, 04, 05 and 06 as tips or as a FastCap assembly



Defy 3D nozzles place more spray behind the sprayer for improved overall coverage on vertical faces such as soil clods and small grass weeds.

Approved as LERAP drift reducing equipment when alternating:

★★ Sizes 03, 035, 04, 05 at 1 bar

HYPRO® NOZZLES

DEFY 3D NOZZLES

PART NUMBER: 30Q3967-03

| Nozzle | Bar | Flow L/min | Litres/hectare @ Km/h | | | | | | | BCPC Spray Quality | LERAP RATING |
|--------|-------|---------------|-----------------------|-----|-----|-----|-----|-----|--------|-----------------------|-----------------|
| | | | 6 | 8 | 10 | 12 | 14 | 16 | 18 | | |
| 03 | 0.7 | 0.580 | 116 | 87 | 70 | 58 | 50 | 43 | 39 | Coarse | ★★ |
| | 1 | 0.693 | 139 | 104 | 83 | 69 | 59 | 52 | 46 | Coarse | ★★ |
| | 1.5 | 0.849 | 170 | 127 | 102 | 85 | 73 | 64 | 57 | Coarse | |
| | 2 | 0.980 | 196 | 147 | 118 | 98 | 84 | 73 | 65 | Medium | |
| | 3 | 1.200 | 240 | 180 | 144 | 120 | 103 | 90 | 80 | Medium | |
| | 4 | 1.386 | 277 | 208 | 166 | 139 | 119 | 104 | 92 | Medium | |
| 5 | 1.549 | 310 | 232 | 186 | 155 | 133 | 116 | 103 | Medium | | |

PART NUMBER: 30Q3967-035

| Nozzle | Bar | Flow L/min | Litres/hectare @ Km/h | | | | | | | BCPC Spray Quality | LERAP RATING |
|--------|-------|---------------|-----------------------|-----|-----|-----|-----|-----|--------|-----------------------|-----------------|
| | | | 6 | 8 | 10 | 12 | 14 | 16 | 18 | | |
| 035 | 0.7 | 0.676 | 135 | 101 | 81 | 68 | 58 | 51 | 45 | Coarse | ★★ |
| | 1 | 0.808 | 162 | 121 | 97 | 81 | 69 | 61 | 54 | Coarse | ★★ |
| | 1.5 | 0.990 | 198 | 148 | 119 | 99 | 85 | 74 | 66 | Coarse | |
| | 2 | 1.143 | 229 | 171 | 137 | 114 | 98 | 86 | 76 | Coarse | |
| | 3 | 1.400 | 280 | 210 | 168 | 140 | 120 | 105 | 93 | Medium | |
| | 4 | 1.617 | 323 | 242 | 194 | 162 | 139 | 121 | 108 | Medium | |
| 5 | 1.807 | 361 | 271 | 217 | 181 | 155 | 136 | 120 | Medium | | |

PART NUMBER: 30Q3967-04

| Nozzle | Bar | Flow L/min | Litres/hectare @ Km/h | | | | | | | BCPC Spray Quality | LERAP RATING |
|--------|-------|---------------|-----------------------|-----|-----|-----|-----|-----|--------|-----------------------|-----------------|
| | | | 6 | 8 | 10 | 12 | 14 | 16 | 18 | | |
| 04 | 0.7 | 0.773 | 155 | 116 | 93 | 77 | 66 | 58 | 52 | Very Coarse | ★★ |
| | 1 | 0.924 | 185 | 139 | 111 | 92 | 79 | 69 | 62 | Coarse | ★★ |
| | 1.5 | 1.131 | 226 | 170 | 136 | 113 | 97 | 85 | 75 | Coarse | |
| | 2 | 1.306 | 261 | 196 | 157 | 131 | 112 | 98 | 87 | Coarse | |
| | 3 | 1.600 | 320 | 240 | 192 | 160 | 137 | 120 | 107 | Coarse | |
| | 4 | 1.848 | 370 | 277 | 222 | 185 | 158 | 139 | 123 | Medium | |
| 5 | 2.066 | 413 | 310 | 248 | 207 | 177 | 155 | 138 | Medium | | |

PART NUMBER: 30Q3967-05

| Nozzle | Bar | Flow L/min | Litres/hectare @ Km/h | | | | | | | BCPC Spray Quality | LERAP RATING |
|--------|-------|---------------|-----------------------|-----|-----|-----|-----|-----|--------|-----------------------|-----------------|
| | | | 6 | 8 | 10 | 12 | 14 | 16 | 18 | | |
| 05 | 0.7 | 0.966 | 193 | 145 | 116 | 97 | 83 | 72 | 64 | Very Coarse | ★★ |
| | 1 | 1.155 | 231 | 173 | 139 | 115 | 99 | 87 | 77 | Coarse | ★★ |
| | 1.5 | 1.414 | 283 | 212 | 170 | 141 | 121 | 106 | 94 | Coarse | |
| | 2 | 1.633 | 327 | 245 | 196 | 163 | 140 | 122 | 109 | Coarse | |
| | 3 | 2.000 | 400 | 300 | 240 | 200 | 171 | 150 | 133 | Coarse | |
| | 4 | 2.309 | 462 | 346 | 277 | 231 | 198 | 173 | 154 | Coarse | |
| 5 | 2.582 | 516 | 387 | 310 | 258 | 221 | 194 | 172 | Medium | | |

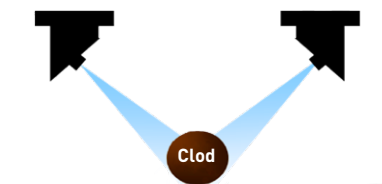
PART NUMBER: 30Q3967-06

| Nozzle | Bar | Flow L/min | Litres/hectare @ Km/h | | | | | | | BCPC Spray Quality | LERAP RATING |
|--------|-------|---------------|-----------------------|-----|-----|-----|-----|-----|--------|-----------------------|-----------------|
| | | | 6 | 8 | 10 | 12 | 14 | 16 | 18 | | |
| 06 | 0.7 | 1.159 | 232 | 174 | 139 | 116 | 99 | 87 | 77 | Very Coarse | |
| | 1 | 1.386 | 277 | 208 | 166 | 139 | 119 | 104 | 92 | Coarse | |
| | 1.5 | 1.697 | 339 | 255 | 204 | 170 | 145 | 127 | 113 | Coarse | |
| | 2 | 1.960 | 392 | 294 | 235 | 196 | 168 | 147 | 131 | Coarse | |
| | 3 | 2.400 | 480 | 360 | 288 | 240 | 206 | 180 | 160 | Coarse | |
| | 4 | 2.771 | 554 | 416 | 333 | 277 | 238 | 208 | 185 | Coarse | |
| 5 | 3.098 | 620 | 465 | 372 | 310 | 266 | 232 | 207 | Coarse | | |

The Defy 3D nozzle has been refined to ensure even spray distribution along the boom, the pattern reinforcing on both forward and rear facing swaths for truly "3D" spray coverage.



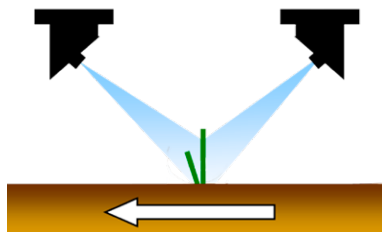
Pre-emergence: 3-6% better weed control



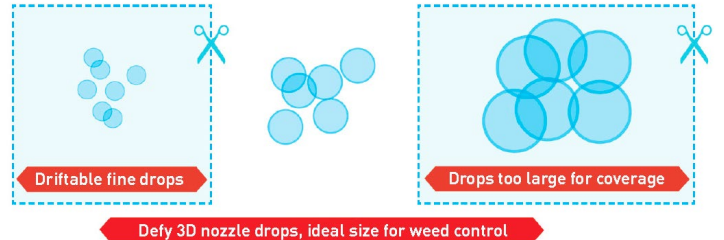
Defy 3D nozzle outperformed a flat fan nozzle by 3-6% for pre-emergence blackgrass control in Syngenta field trials.



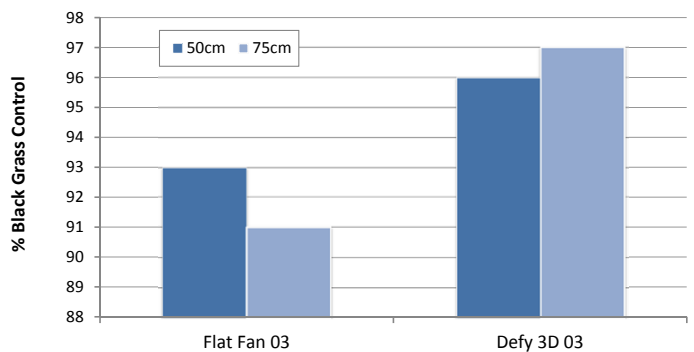
Post-emergence: 8% better coverage



An alternating inclined spray increased spray deposition by 8% on a 1-leaf artificial target in wind tunnel trials at Silsoe Spray Applications Unit.



Blackgrass trials results at 50 and 75 cm boom heights



Source: Syngenta UK trials - Defy 4/ha + Liberator 0.4/ha applied pre-emergence on 6th Nov 2014

