

# HYPRO<sup>®</sup> NOZZLES

## DEFY 3D NOZZLES

### INCLINED FLAT FAN NOZZLE FOR OPTIMUM SPRAY COVERAGE

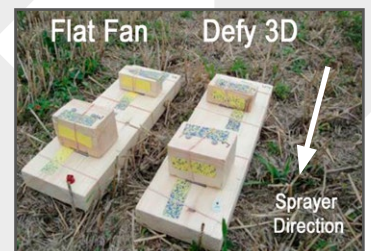


#### FEATURES & BENEFITS

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<sup>®</sup> 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		

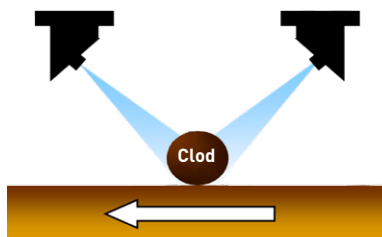
### PART NUMBER: 30Q3967-06

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.

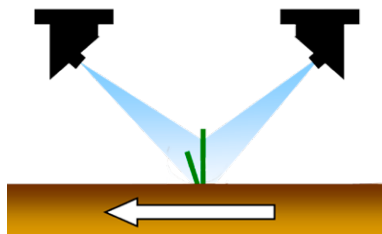


#### Pre-emergence: 3-6% better weed control

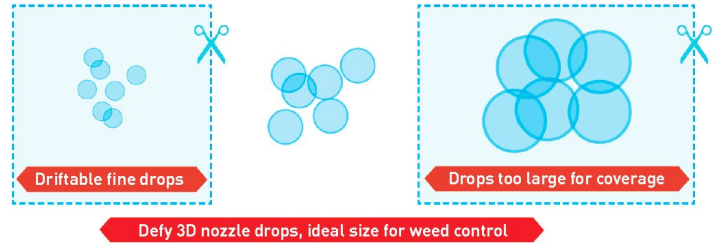


Defy 3D nozzle outperformed a flat fan nozzle by 3-6% for pre-emergence blackgrass control in Syngenta field trials.

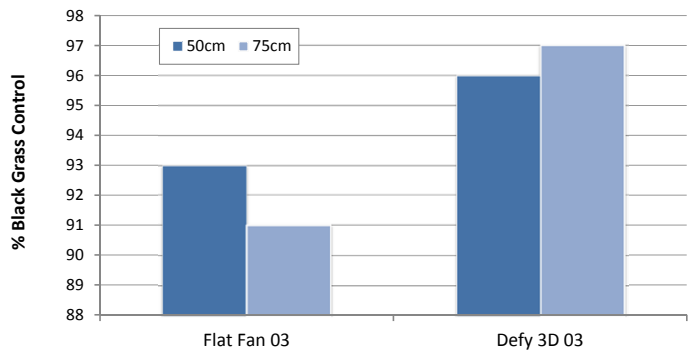
#### Post-emergence: 8% better coverage



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



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