

HYPRO[®] NOZZLES

3D INCLINED NOZZLES

3 DIMENSIONAL SPRAY COVERAGE WITH REDUCED DRIFT

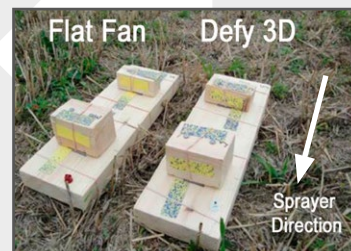


FEATURES & BENEFITS

3D nozzles have been designed with an inclined spray to improve coverage on vertical targets such as soil clods and small grass weeds, they also offer superior coverage underneath crop canopies.

By eliminating the smallest droplets they reduce drift by 60-75% and are the first flat fan type of nozzle to be LERAP rated.

- Developed together with Syngenta to maximise the performance of Defy[®] herbicide under the Defy 3D Nozzle brand
 - Increase blackgrass control by up to 6% compared to a standard design flat fan nozzle in Syngenta UK's pre-emergence field trials
 - Optimum drop size for coverage, fewer drops bounce off or drift away
- Spray pattern designed so that when alternate nozzles are sprayed forward and backward the spray pattern is optimised for even coverage on both sides
- 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 015, 02, 03, 035, 04, 05, 06 and 08 as tips or as a FastCap assembly



The spray incline avoids a spray shadow, resulting in improved coverage on vertical targets such as soil clods and small grass weeds.



When the nozzles are inclined in alternating directions, spray distribution is even on both sides of the boom.

Approved as LERAP drift reducing equipment when alternating:

★★ Sizes 03, 035, 04, 05 at 1 bar

HYPRO® NOZZLES

DEFY 3D NOZZLES

NOZZLE SIZE	PRESSURE (BAR)	SPRAY QUALITY	FLOW L/MIN	LITRES/HECTARE @ KM/H AT 50 CM NOZZLE SPACING							
				6	8	10	12	14	16	18	20
015	0.7	C	0.290	58	43	35	29	25	22	19	17
	1	M	0.346	69	52	42	35	30	26	23	21
	1.5	M	0.424	85	64	51	42	36	32	28	25
	2	F	0.490	98	73	59	49	42	37	33	29
	3	F	0.600	120	90	72	60	51	45	40	36
	4	F	0.693	139	104	83	69	59	52	46	42
	5	F	0.775	155	116	93	77	66	58	52	46

NOZZLE SIZE	PRESSURE (BAR)	SPRAY QUALITY	FLOW L/MIN	LITRES/HECTARE @ KM/H AT 50 CM NOZZLE SPACING							
				6	8	10	12	14	16	18	20
02	0.7	C	0.386	77	58	46	39	33	29	26	23
	1	M	0.462	92	69	55	46	40	35	31	28
	1.5	M	0.566	113	85	68	57	48	42	38	34
	2	M	0.653	131	98	78	65	56	49	44	39
	3	F	0.800	160	120	96	80	69	60	53	48
	4	F	0.924	185	139	111	92	79	69	62	55
	5	F	1.033	207	155	124	103	89	77	69	62

NOZZLE SIZE	PRESSURE (BAR)	SPRAY QUALITY	FLOW L/MIN	LITRES/HECTARE @ KM/H AT 50 CM NOZZLE SPACING							
				6	8	10	12	14	16	18	20
025	0.7	C	0.483	97	72	58	48	41	36	32	29
	1	C	0.577	115	87	69	58	49	43	38	35
	1.5	M	0.707	141	106	85	71	61	53	47	42
	2	M	0.816	163	122	98	82	70	61	54	49
	3	M	1.000	200	150	120	100	86	75	67	60
	4	M	1.155	231	173	139	115	99	87	77	69
	5	F	1.291	258	194	155	129	111	97	86	77

NOZZLE SIZE	PRESSURE (BAR)	SPRAY QUALITY	FLOW L/MIN	LITRES/HECTARE @ KM/H AT 50 CM NOZZLE SPACING								LERAP RATING
				6	8	10	12	14	16	18	20	
03	0.7	C	0.580	116	87	70	58	50	43	39	35	★★
	1	C	0.693	139	104	83	69	59	52	46	42	★★
	1.5	C	0.849	170	127	102	85	73	64	57	51	
	2	M	0.980	196	147	118	98	84	73	65	59	
	3	M	1.200	240	180	144	120	103	90	80	72	
	4	M	1.386	277	208	166	139	119	104	92	83	
	5	F	1.549	310	232	186	155	133	116	103	93	

NOZZLE SIZE	PRESSURE (BAR)	SPRAY QUALITY	FLOW L/MIN	LITRES/HECTARE @ KM/H AT 50 CM NOZZLE SPACING								LERAP RATING
				6	8	10	12	14	16	18	20	
035	0.7	C	0.676	135	101	81	68	58	51	45	41	★★
	1	C	0.808	162	121	97	81	69	61	54	48	★★
	1.5	C	0.990	198	148	119	99	85	74	66	59	
	2	C	1.143	229	171	137	114	98	86	76	69	
	3	M	1.400	280	210	168	140	120	105	93	84	
	4	M	1.617	323	242	194	162	139	121	108	97	
	5	M	1.807	361	271	217	181	155	136	120	108	

NOZZLE SIZE	PRESSURE (BAR)	SPRAY QUALITY	FLOW L/MIN	LITRES/HECTARE @ KM/H AT 50 CM NOZZLE SPACING								LERAP RATING
				6	8	10	12	14	16	18	20	
04	0.7	VC	0.773	155	116	93	77	66	58	52	46	★★
	1	C	0.924	185	139	111	92	79	69	62	55	★★
	1.5	C	1.131	226	170	136	113	97	85	75	68	
	2	C	1.306	261	196	157	131	112	98	87	78	
	3	C	1.600	320	240	192	160	137	120	107	96	
	4	M	1.848	370	277	222	185	158	139	123	111	
	5	M	2.066	413	310	248	207	177	155	138	124	

NOZZLE SIZE	PRESSURE (BAR)	SPRAY QUALITY	FLOW L/MIN	LITRES/HECTARE @ KM/H AT 50 CM NOZZLE SPACING								LERAP RATING
				6	8	10	12	14	16	18	20	
05	0.7	VC	0.966	193	145	116	97	83	72	64	58	★★
	1	C	1.155	231	173	139	115	99	87	77	69	★★
	1.5	C	1.414	283	212	170	141	121	106	94	85	
	2	C	1.633	327	245	196	163	140	122	109	98	
	3	C	2.000	400	300	240	200	171	150	133	120	
	4	C	2.309	462	346	277	231	198	173	154	139	
	5	M	2.582	516	387	310	258	221	194	172	155	

NOZZLE SIZE	PRESSURE (BAR)	SPRAY QUALITY	FLOW L/MIN	LITRES/HECTARE @ KM/H AT 50 CM NOZZLE SPACING							
				6	8	10	12	14	16	18	20
06	0.7	VC	1.159	232	174	139	116	99	87	77	70
	1	C	1.386	277	208	166	139	119	104	92	83
	1.5	C	1.697	339	255	204	170	145	127	113	102
	2	C	1.960	392	294	235	196	168	147	131	118
	3	C	2.400	480	360	288	240	206	180	160	144
	4	C	2.771	554	416	333	277	238	208	185	166
	5	C	3.098	620	465	372	310	266	232	207	186

NOZZLE SIZE	PRESSURE (BAR)	SPRAY QUALITY	FLOW L/MIN	LITRES/HECTARE @ KM/H AT 50 CM NOZZLE SPACING							
				6	8	10	12	14	16	18	20
08	0.7	VC	1.546	309	232	185	155	132	116	103	93
	1	VC	1.848	370	277	222	185	158	139	123	111
	1.5	VC	2.263	453	339	272	226	194	170	151	136
	2	C	2.613	523	392	314	261	224	196	174	157
	3	C	3.200	640	480	384	320	274	240	213	192
	4	C	3.695	739	554	443	370	317	277	246	222
	5	C	4.131	826	620	496	413	354	310	275	248

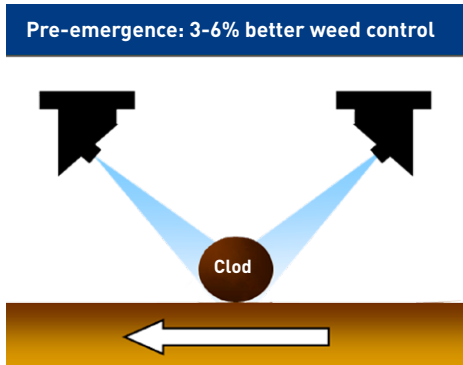
PART NUMBERS:

DEFY 3D	NEW PART NUMBER	FASTCAP VERSION
30Q3967-015	3D100-015	FC-3D100-015
30Q3967-02	3D100-02	FC-3D100-02
30Q3967-025	3D100-025	FC-3D100-025
30Q3967-03	3D100-03	FC-3D100-03
30Q3967-035	3D100-035	FC-3D100-035
30Q3967-04	3D100-04	FC-3D100-04
30Q3967-05	3D100-05	FC-3D100-05
30Q3967-06	3D100-06	FC-3D100-06
30Q3967-08	3D100-08	FC-3D100-08

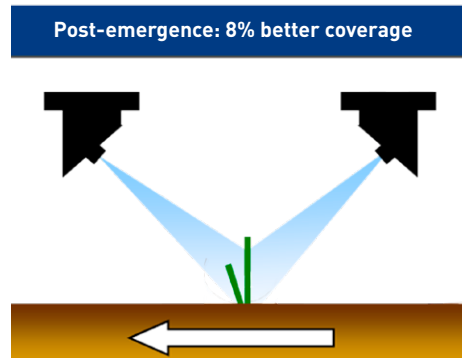
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DEFY 3D NOZZLES

ALTERNATE INCLINES FOR 3-DIMENSIONAL TARGET COVERAGE:

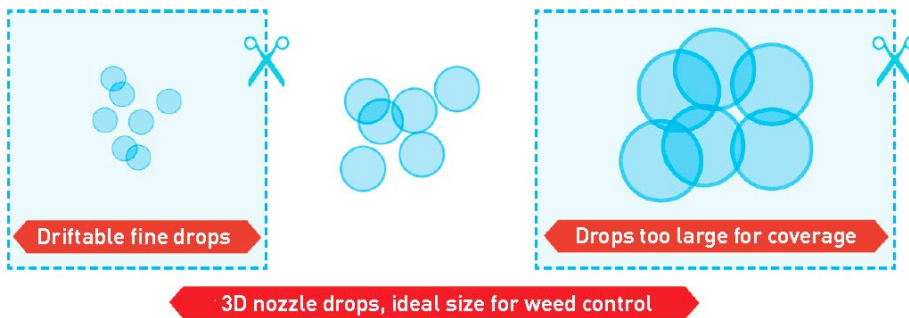


Defy 3D nozzle out-performed a flat fan nozzle by 3-6% when used for pre-emergence blackgrass control in Syngenta field trials.

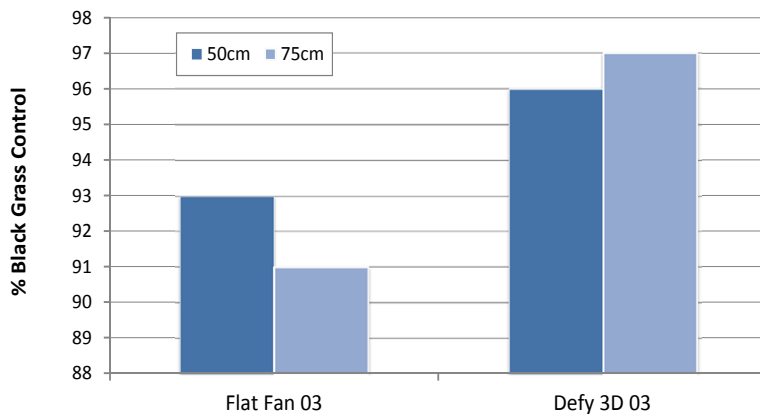


An alternating inclined spray increased spray deposition by 8% on a 1-leaf artificial target in wind tunnel trials at Silsoe Spray Applications Unit.

ELIMINATES THE LARGEST AND SMALLEST DROPLETS:



PROVEN PERFORMANCE IN PRE-EMERGENCE FIELD TRIALS:



% blackgrass control with boom set at 50 or 75 cm.

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



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