

Syngenta Nozzle Range and Application Guidelines



 **ProductPlus**

syngenta®

Free nozzle claim form inside

Syngenta Nozzle Range

The Syngenta nozzle range has been developed by Syngenta in conjunction with Hypro EU (previously Lurmark), to help growers get the best results when applying Syngenta Crop Protection products.

Syngenta nozzles have been designed to; improve product performance through better coverage, increase productivity with reduced water volumes and reduce environmental impact by reducing spray drift.





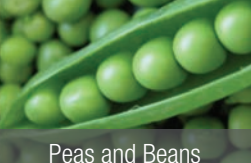


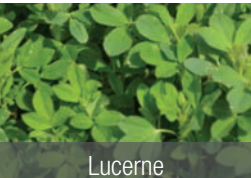
Syngenta nozzles are made from “SuperPoly”, with a similar wear profile to ceramic, and they fit standard flat fan bayonet caps. Syngenta nozzles can be purchased from selected Syngenta product resellers or are available free of charge when you purchase nominated Syngenta Crop Protection products (see “Syngenta Nozzle Claim Form” page).

Syngenta Nozzle Range & Benefits

Nozzle Type	Specification	Spray Angle	Benefits
 AMISTAR AI Nozzle	VP110-025 VP110-03 VP110-035 VP110-04 VP110-05	10° backwards facing	<ul style="list-style-type: none">• More droplets per litre than any other Air Induction nozzle• 10° spray angle increases deposition on front and back of target• Reduce spray drift by up to 75%• Variable Pressure (VP) nozzels. Hold spray pattern down to 1 bar• Made from wear resistant SuperPoly
 DEFY Nozzle	VP83-03 VP83-035 VP83-04	38° alternating forwards and backwards	<ul style="list-style-type: none">• 38° spray angle increases deposition on hard to hit targets (ie. small grass weeds)• Provide up to 2 times the spray deposition of vertical nozzles• Can be angled forwards and back to maximize coverage of pre-emergent herbicides on soil clods• Designed to spray effectively at 70cm boom height, but can still be used down to 50cm• Reduce spray drift by up to 50%• Variable Pressure (VP) nozzels. Hold spray pattern down to 1 bar• Made from wear resistant SuperPoly
 Potato Nozzle	VP110-04 VP110-05	30° alternating forwards and backwards	<ul style="list-style-type: none">• 30° spray angle improves coverage on lower leaves in complex canopies• Ideal where higher water volumes are required to improve coverage• Can be angled forwards and back for improved coverage, or all facing forward to reduce drift• Variable Pressure (VP) nozzels. Hold spray pattern down to 1 bar• Made from wear resistant SuperPoly
 Vegetable Nozzle	65-06 (Silver) 65-08 (Gold)	Vertical (65° fan)	<ul style="list-style-type: none">• Designed to apply high water volumes and force spray into the crop• 65° fan angle slows down the droplet speed to improve deposition into the crown of target crops (carrots, brassica, lettuce)• Reduce herbicide contact on onions, reducing risk of crop damage

Application Guidelines

Combinable & Forage Crops

Crop	Timing	Water Volume (L/ha)*	Forward Speed	Best Nozzle	Reduced Drift Option
 Cereals	Pre-em Herbicides	100 and above	12-16 km/hr	DEFY nozzle alternating forwards and back	AMISTAR AI nozzle
	Early Post-em Herbicides	100 and above	12-16 km/hr	DEFY nozzle alternating forwards and back	DEFY nozzle (worst case AMISTAR AI nozzle)
	Post-em Herbicides	100 and above	12-16 km/hr (slow down to 12 km/hr for late season Wild Oats)	Standard Flat Fan or AMISTAR AI nozzle	AMISTAR AI nozzle
	Fungicides T0	100	12-16 km/hr	DEFY nozzle	AMISTAR AI nozzle
	Fungicides T1-T3	100	12-16 km/hr	AMISTAR AI nozzle	AMISTAR AI nozzle
 Ryegrass Seed	Pre-em Herbicides	100 and above	12-16 km/hr	DEFY nozzle alternating forwards and back	AMISTAR AI nozzle
	Post-em Herbicides	100 and above	12-16 km/hr	DEFY nozzle alternating forwards and back	AMISTAR AI nozzle
	Fungicides, Insecticides	100 and above	12-16 km/hr	AMISTAR AI nozzle	AMISTAR AI nozzle
 Clover	Pre-em Herbicides	100 and above	12-16 km/hr	DEFY nozzle alternating forwards and back	AMISTAR AI nozzle
	Post-em Herbicides	100 and above	12-16 km/hr	DEFY nozzle alternating forwards and back	DEFY nozzle (worst case AMISTAR AI nozzle)
	Insecticides	100 and above	12-16 km/hr	AMISTAR AI nozzle	AMISTAR AI nozzle
	Desiccation	250 and above	12-16 km/hr	05 Potato nozzle alternating forwards and back	
 Oilseed Rape	Pre-em Herbicides	100 and above	12-16 km/hr	DEFY nozzle alternating forwards and back	AMISTAR AI nozzle
	Post-em Herbicides	100 and above	12-16 km/hr	DEFY nozzle alternating forwards and back	DEFY nozzle (worst case AMISTAR AI nozzle)
	Fungicides, Insecticides	100 and above	12-16 km/hr	AMISTAR AI nozzle	AMISTAR AI nozzle
 Peas and Beans	All growth stages	200	12-14 km/hr	Potato nozzle alternating forwards and back	AMISTAR AI nozzle
 Maize	Pre-em Herbicides	100 and above	12-16 km/hr	DEFY nozzle alternating forwards and back	AMISTAR AI nozzle
	Post-em Herbicides	100 and above	12-16 km/hr	DEFY nozzle or Potato nozzle alternating forwards and back	AMISTAR AI nozzle
 Forage Brassicas	Pre-em Herbicides	100 and above	12-16 km/hr	DEFY nozzle alternating forwards and back	AMISTAR AI nozzle
	Post-em Herbicides	100 and above	12-16 km/hr	DEFY nozzle alternating forwards and back	DEFY nozzle (worst case AMISTAR AI nozzle)
	Insecticides	200 and above	12-14 km/hr	05 Potato nozzle alternating forwards and back	AMISTAR AI nozzle
 Lucerne	Post-em Herbicides	200 and above	12-16 km/hr	05 Potato nozzle alternating forwards and back	





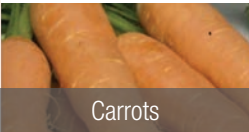
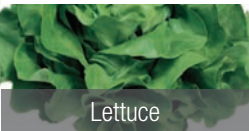
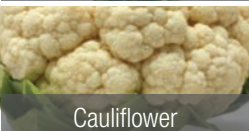
*These water volumes are indications only – please refer to specific product label for application details.

Application Guidelines

Vegetable Crops - Herbicides






Timing	Water Volume (L/ha)*	Best Nozzle	Reduced Drift Option	General Purpose	Notes
Pre-emergence good seed bed	100-200	DEFY nozzle alternating forwards and backwards	AMISTAR AI nozzle	110° Fan Jet	AMISTAR AI nozzle produces 40 drops/cm ²
Pre-emergence cloddy seed bed	100-200	DEFY nozzle alternating forwards and backwards	AMISTAR AI nozzle	110° Fan Jet	Cloddy seed beds reduce weed control. Even coverage of clods both sides is achieved with angled nozzles
Post-emergence soil applied	200-400	06 or 08 Syngenta Vegetable nozzle	AMISTAR AI nozzle	110° Fan Jet	Narrow angle fan best for reducing spray retained on crop leaves
Graminicide (grass weeds)	100-200	DEFY nozzle alternating forwards and backwards	AMISTAR AI nozzle	110° Fan Jet	Angled sprays typically double the spray retained on grass weeds
Broad leaved weeds	100-200	DEFY nozzle alternating forwards and backwards	AMISTAR AI nozzle	110° Fan Jet	




Vegetable Crops - Fungicides & Insecticides



Crop	Timing	Water Volume (L/ha)*	Best Nozzle	Reduced Drift Option	General Purpose
 Potatoes	Pre row-closure	100-200	04 or 05 Potato nozzle alternating forwards and back	AMISTAR AI nozzle	110° Fan Jet
	Post row-closure	200-300	05 Potato nozzle alternating forwards and back	AMISTAR AI nozzle	110° Fan Jet
 Onions	Small	100	DEFY nozzle alternating forwards and back	DEFY nozzle angled forwards and back	
	Large	200	04 or 05 Potato nozzle alternating forwards and back	Twin cap conventional nozzle in front, air induction in rear	
 Cabbages	Small open	100-200	AMISTAR AI nozzle	AMISTAR AI nozzle	110° Fan Jet
	Hearted	300-800	06 or 08 Vegetable nozzle	AMISTAR AI nozzle	110° Fan Jet
 Brussels Sprouts	Small open	100-200	AMISTAR AI nozzle	AMISTAR AI nozzle	110° Fan Jet
	Large	300-500	05 Potato nozzle alternating forwards and back	Twin cap conventional nozzle in front, air induction in rear	
 Carrots	Small	100-200	DEFY or Potato nozzle	AMISTAR AI nozzle	110° Fan Jet
	Large	300-400	06 or 08 Vegetable nozzle		
 Lettuce	Small open	100-200	AMISTAR AI nozzle	AMISTAR AI nozzle	110° Fan Jet
	Hearted	300-800	06 or 08 Vegetable nozzle	AMISTAR AI nozzle	110° Fan Jet
 Cauliflower	Small pre-curd	200-300	05 Potato nozzle	AMISTAR AI nozzle	
	Developing curds	200-300	05 Potato nozzle or 06 Vegetable nozzle		



*These water volumes are indications only – please refer to specific product label for application details.

Syngenta Nozzle Application Data

Syngenta Nozzle Application Data						50cm Nozzle Spacing					
						Application Rate L/ha at km/h					
AMISTAR AI Nozzles		Pressure Bar	PSI	Spray Quality	Flow L/min	6	8	10	12	14	16
AMISTAR AI Nozzle VP110-025 Lilac		1	15	XC	0.58	115	87	69	58	49	43
		2	29	VC	0.82	163	122	98	82	70	61
		3	44	C	1.00	200	150	120	100	86	75
		4	58	C	1.16	231	173	139	116	99	87
		5	73	C	1.29	258	194	155	129	111	97
		6	87	M	1.41	283	212	170	141	121	106
AMISTAR AI Nozzle VP110-03 Blue		1	15	XC	0.69	139	104	83	69	59	52
		2	29	XC	0.98	196	147	118	98	84	74
		3	44	C	1.20	240	180	144	120	103	90
		4	58	C	1.39	277	208	166	139	119	104
		5	73	C	1.55	310	232	186	155	133	116
		6	87	M	1.70	339	255	204	170	145	127
AMISTAR AI Nozzle VP110-035 Brown Red		1	15	XC	0.81	162	121	97	81	69	61
		2	29	XC	1.14	229	171	137	114	98	86
		3	44	VC	1.40	280	210	168	140	120	105
		4	58	VC	1.62	323	243	194	162	139	121
		5	73	C	1.81	361	271	217	181	155	136
		6	87	M	1.98	396	297	238	198	170	149
AMISTAR AI Nozzle VP110-04 Red		1	15	XC	0.92	185	139	111	92	79	69
		2	29	VC	1.31	261	196	157	131	112	98
		3	44	C	1.60	320	240	192	160	137	120
		4	58	C	1.85	370	277	222	185	158	139
		5	73	C	2.07	413	310	248	207	177	155
		6	87	M	2.26	453	339	272	226	194	170
AMISTAR AI Nozzle VP110-05 Light Brown		1	15	XC	1.16	231	173	139	116	99	87
		2	29	VC	1.63	327	245	196	163	140	122
		3	44	C	2.00	400	300	240	200	171	150
		4	58	C	2.31	462	346	277	231	198	173
		5	73	C	2.58	516	387	310	258	221	194
		6	87	M	2.83	566	424	339	283	242	212

DEFY Nozzles		Pressure Bar	PSI	Spray Quality	Flow L/min	6	8	10	12	14	16
DEFY Nozzle VP83-03 Blue		1	15	VC	0.69	138	104	83	69	59	52
		1.5	22	C	0.85	170	128	102	85	73	64
		2	29	M	0.98	196	147	118	98	84	74
		2.5	36	M	1.10	220	165	132	110	94	83
		3	44	M	1.2	240	180	144	120	103	90
		4	58	F	1.39	278	209	167	139	119	104
DEFY Nozzle VP83-035 Brown Red		1	15	VC	0.81	162	122	97	81	69	61
		1.5	22	C	0.99	198	149	119	99	85	74
		2	29	M	1.14	228	171	137	114	98	86
		2.5	36	M	1.28	256	192	154	128	110	96
		3	44	M	1.4	280	210	168	140	120	105
		4	58	M	1.62	324	243	194	162	139	122
DEFY Nozzle VP83-04 Red		1	15	VC	0.92	184	138	110	92	79	69
		1.5	22	C	1.13	226	170	136	113	97	85
		2	29	M	1.31	262	197	157	131	112	98
		2.5	36	M	1.46	292	219	175	146	125	110
		3	44	M	1.6	320	240	192	160	137	120
		4	58	M	1.85	370	278	222	185	159	139

Syngenta Potato Nozzles		Pressure Bar	PSI	Spray Quality	Flow L/min	6	8	10	12	14	16
Syngenta Potato Nozzle VP110-04		1	15	C	0.91	182	137	109	91	78	68
		2	29	M	1.29	258	194	155	129	111	97
		3	44	M	1.58	316	237	190	158	135	119
		4	58	F	1.82	364	273	218	182	156	137
		5	73	F	2.04	408	306	245	204	175	153
Syngenta Potato Nozzle VP110-05		1	15	VC	1.16	232	174	139	116	99	87
		1.5	22	C	1.42	284	213	170	142	122	107
		2	29	M	1.63	326	245	196	163	140	122
		3	44	M	2	400	300	240	200	171	150
		4	58	M	2.31	462	347	277	231	198	173
		5	73	M	2.58	516	387	310	258	221	194

Vegetable Nozzles		Pressure Bar	PSI	Spray Quality	Flow L/min	6	8	10	12	14	16
Vegetable Nozzle 65-06 Silver		1	15	XC	1.36	272	204	163	136	117	102
		2	29	VC	1.92	384	288	230	192	165	144
		3	44	C	2.36	472	354	283	236	202	177
		4	58	C	2.72	544	408	326	272	233	204
		5	73	C	3.04	608	456	365	304	261	228
Vegetable Nozzle 65-08 Gold		1	15	XC	1.82	364	273	218	182	156	137
		2	29	VC	2.58	516	387	310	258	221	194
		3	44	VC	3.16	632	474	379	316	271	237
		4	58	C	3.64	728	546	437	364	312	273
		5	73	C	4.08	816	612	490	408	350	306

Syngenta Nozzle Claim Form

Syngenta nozzles can be purchased from selected Syngenta product resellers. You can also qualify towards FREE Syngenta nozzles when you purchase any of the following Syngenta Crop Protection products.

Syngenta Fungicides	Syngenta Insecticides	Syngenta Herbicides
ALTO®	ACTARA®	FUSILADE®
AMISTAR®	AMPLIGO®	GRAMOXONE®
BRAVO WEATHERSTIK®	AVID®	PREEGLONE®
CHORUS®	CHESS®	REGLONE®
REVUS®	DOVETAIL®	TOUCHDOWN iQ®
RIDOMIL GOLD®	DURIVO®	TWINAX®
SCORE® EC/WG	KARATE ZEON®	Other Syngenta Products
SEGURIS FLEXI®	MATCH®	ACTIGARD™ (Plant Activator)
SWITCH®	PIRIMOR®	ADIGOR® (Adjuvant)
THIOVIT JET®	PROCLAIM®	MODDUS® (PGR)
TILT®	VOLIAM TARGO®	
TOPAS®		

How to qualify for FREE Syngenta nozzles*

To qualify for 25 Syngenta nozzles

(Value \$325.00 Excl GST): Simply purchase \$5,000 (Excl GST) worth of Syngenta products this season.*

To qualify for 50 Syngenta nozzles

(Value \$650.00 Excl GST): Simply purchase \$10,000 (Excl GST) worth of Syngenta products this season.*

Complete this claim form and send with proof of purchase (ie. copy of receipts) by post to: Syngenta Crop Protection Ltd, Private Bag 92618, Symonds St, Auckland, 1150, or Freefax: 0800 800 924.

First name:

Surname:

Delivery address:

Postcode:

Phone number:

Email address:

Preferred distributor (company):

Town:

Boom width (meters):

Nozzle spacing (if other than 0.5 mtr):

Please state nozzle type and specification (size) required:

Crops grown (Ha's):

***Terms and conditions:** All products must be purchased within a 12 month period between 1 June - 31 May and claimed prior to 31 December in the corresponding year. Growers may claim up to a maximum of 100 nozzles FREE if they purchase a minimum of \$20,000 (Excl GST). Claims received without proof of purchase will not be valid. Allow up to 21 days for delivery of nozzles.

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