

RED UMBRELLA NOZZLE FLOW CHART - WATER										
Disc Colour	Pressure Bar	Flow L/min	Litres per hectare / KPH Speed / 50cm Nozzle spacing						Nozzle	Metering Disc
			8	10	12	14	16	18		
Orange	1.5	0.75	113	89	75	66	56	50		
	2	0.87	130	104	87	76	65	58		
	2.5	0.99	145	115	96	84	72	64		
	3	1.07	160	128	106	93	80	70		
Red	1	1.12	168	134	112	98	84	75		
	1.5	1.37	206	164	137	120	103	91		
	2	1.58	237	190	158	139	118	105		
	2.5	1.76	264	211	176	153	131	117		
	3	1.94	291	232	194	169	145	129		
	3.5	2.09	313	250	209	182	156	139		
Blue	4	2.24	336	269	224	196	168	149		
	1	1.81	272	217	181	158	136	121		
	1.5	2.22	333	266	222	194	166	148		
	2	2.56	385	308	256	224	192	171		
	2.5	2.85	428	342	285	249	213	190		
	3	3.14	471	377	314	274	235	209		

BLUE UMBRELLA NOZZLE FLOW CHART - WATER										
Disc Colour	Pressure Bar	Flow L/min	Litres per hectare / KPH Speed / 50cm Nozzle spacing						Nozzle	Metering Disc
			8	10	12	14	16	18		
Red	1	1.12	168	134	112	98	84	75		
	1.5	1.37	206	164	137	120	103	91		
	2	1.58	237	190	158	139	118	105		
	2.5	1.76	264	211	176	153	131	117		
	3	1.94	291	232	194	169	145	129		
	3.5	2.09	313	250	209	182	156	139		
Blue	4	2.24	336	269	224	196	168	149		
	1	1.81	272	217	181	158	136	121		
	1.5	2.22	333	266	222	194	166	148		
	2	2.56	385	308	256	224	192	171		
	2.5	2.85	428	342	285	249	213	190		
	3	3.14	471	377	314	274	235	209		
Yellow	3.5	3.38	507	406	338	295	253	225		
	4	3.63	544	435	363	317	272	242		
	1	2.64	396	316	264	231	198	176		
	1.5	3.23	485	388	323	281	242	215		
	2	3.73	560	448	373	326	280	248		
	2.5	4.15	622	497	415	363	311	276		

GREEN UMBRELLA NOZZLE FLOW CHART - WATER										
Disc Colour	Pressure Bar	Flow L/min	Litres per hectare / KPH Speed / 50cm Nozzle spacing						Nozzle	Metering Disc
			8	10	12	14	16	18		
Yellow	1	2.64	396	316	264	231	198	176		
	1.5	3.23	485	388	323	281	242	215		
	2	3.73	560	448	373	326	280	248		
	2.5	4.15	622	497	415	363	311	276		
	3	4.57	685	548	457	398	342	305		
Green	1	3.52	528	422	352	308	264	235		
	1.5	4.31	646	517	431	377	323	287		
	2	4.97	746	597	497	435	373	331		
	2.5	5.53	830	664	553	484	415	369		
White	3	6.09	914	731	609	533	457	406		
	1	4.44	666	533	444	388	333	296		
	1.5	5.44	816	653	544	476	408	362		
	2	6.28	943	754	628	549	471	419		
	2.5	6.99	1049	839	699	611	524	466		
	3	7.70	1155	924	770	673	577	513		

GREEN ULTRA-PLUS UMBRELLA NOZZLE FLOW CHART - WATER										
Disc Colour	Pressure Bar	Flow L/min	Litres per hectare / KPH Speed / 50cm Nozzle spacing						Nozzle	Metering Disc
			8	10	12	14	16	18		
Light Green	1.5	8.79	1319	1055	879	751	659	585		
	2	10.15	1523	1218	1015	870	761	677		
	3	12.43	1865	1492	1243	1065	933	829		
Dark Blue	1.5	12.48	1872	1498	1248	1070	936	832		
	2	14.41	2161	1729	1441	1235	1081	960		
	3	17.65	2647	2118	1765	1513	1324	1176		

Umbrella Fertiliser Nozzles

There are basically three types of fertiliser nozzle available on the market.

The oldest type is like a conventional hydraulic spray nozzle with a tip that has 3 or 6 holes in it. The fertiliser comes out of the bottom of the nozzle in a downward trajectory, but this is very height sensitive as a triangle is formed and therefore boom height is critical. Difficult at wider widths.

Then there is the 'dribble bar' of which there are a number of different manufacturers but the principle is the same. It is a bar about 45 cm long with four outlets, which is fixed on a band clamp with a bayonet cap. The liquid passes down the bar and out through 4 outlets giving a vertical stream onto the crop.

Quite accurate but major problems occur:-

The bars are prone to break if they hit the crop due to the resistance created when doing so.

They have to be removed when selecting an alternative nozzle.

Each of the end outlets on the dribble bar tend to be 10-15% lower output resulting in inaccuracy.

Should there be any inaccuracy in tramlining, the dribble bar has no overlap and will therefore result in an untreated area and irregular growth.

Many booms and boom rest positions have to be modified to accommodate the dribble bar.

Landquip's Umbrella nozzle has been designed to keep the simplicity of a conventional nozzle and to offer greater accuracy than a dribble bar. When applying liquid fertiliser the Umbrella nozzle is the most important accessory that can be fitted to your sprayer. It is a great British design that fits almost any modern crop sprayer with 50cm nozzle spacing. Manufactured in the UK and used around the world, the Umbrella nozzle offers the widest application range of any fertiliser nozzle range available.

It is like a conventional spray nozzle but has a vertical tube about the size of a shotgun cartridge. On the lower end the bottom is blank and there are 7 holes strategically placed through 136° around the rear facing round part of the nozzle cartridge. This causes the fertiliser to exit the nozzle at different angles but to land at regular equal spacing onto the crop. There are 7 streams every half metre whatever the pressure and whatever the speed (as long as the chart guidelines are adhered to) which is particularly important in dry conditions for lateral movement in the soil.

Advantages of the Umbrella Nozzle:-

- ***Umbrella nozzles are not height sensitive as long as the boom is over 50cm above the crop. Boom height for fertiliser should be 1.0-1.5 metres at least, anything up to 2.4 metres is acceptable, so that gravity helps the liquid roll off the leaf and onto the ground where it is wanted.***
- ***They can be fitted onto multi-head nozzle body systems and do not have to be removed when selecting an alternative nozzle on the turret or 360° rotating nozzle holder or when folding the boom.***
- ***Less prone to damage – if hit, the worst likely outcome is to rotate the nozzle body.***
- ***Umbrella nozzles are cheaper than dribble bar systems.***
- ***Metering disc and cap seal are included.***
- ***A good volume range – e.g. 75 to 1765 l/hectare at 12kph - please refer to flow chart.***



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