

KINGDOM OF BELGIUM

FEDERAL PUBLIC SERVICE FOR HEALTH, FOOD CHAIN SAFETY AND ENVIRONMENT

Ministerial Decree amending the Ministerial Decree of 1 April 2021 laying down the drift-reducing agents or measures

The Minister for Agriculture,

Having regard to Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC;

Having regard to the Law of 21 December 1998 on product standards to promote sustainable production and consumption patterns and to protect the environment, public health and workers, Article 9(1)1°, as amended by the Law of 16 December 2015;

Having regard to the Royal Decree of 19 March 2013 on the realisation of a sustainable use of plant protection products and adjuvants, Article 9, 4°;

Having regard to the Ministerial Decree of 1 April 2021 laying down the drift-reducing agents or measures;

Having regard to the involvement of and consultation with the regional governments in the drafting of this Decree at the Interministerial Conference for Environment, extended to agriculture, on (date);

Having regard to the opinion of the Inspector of Finance, issued on (date);

Having regard to the communication to the European Commission on (date), pursuant to Article 5(1) of Directive (EG) 2015/1535 of the European Parliament and of the Council of 9 September 2015 laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services;

Having regard to opinion xxxxx/x of the Council of State, issued on (date), pursuant to Article 84(1)(1), 2° of the Council of State Acts, coordinated on 12 January 1973;

HEREBY DECIDES

Article 1. In the Ministerial Decree of 1 April 2021 laying down the drift-reducing agents or measures, the Annex replaced by the Ministerial Decree of 2 February 2024 it is replaced by the Annex to this Decree.

Article 2. This Decree shall enter into force on the day of its publication in the Belgian Official Gazette [Belgisch Staatsblad].

Brussels, (date)

David CLARINVAL

Annex to the Ministerial Decree amending the Ministerial Decree laying down the drift-reducing agents or measures

LIST OF DRIFT-REDUCING MATERIAL – DRIFT PERCENTAGES DEPENDING ON THE SPRAYING TECHNIQUE

The user can reduce the buffer zone indicated on the label if it uses effective material (anti-drift material) and/or provides protective measures (hedges, screens). The classification of a material according to its anti-drift potential for the spraying technique used and for the type of cultivation is presented below.

CHAPTER 1: VERTICAL DOWNWARDS SPRAYING

For spraying in field crops (arable crops, vegetables, strawberries, grassland), the anti-drift classification takes into account the different combinations of sprayers and nozzles (see Table 1). The various sprayers/techniques are further described below. These descriptions are based on the fact sheets from the Dutch DRT list.¹

STANDARD SPRAYER(*):

- nozzle spacing: 50 cm
- height between nozzles and crop or soil (if no crop is present): maximum 50 cm
- description: standard field spray (self-propelled, drawn and carried)

SHIELDED SPRAY BOOM(\$):

- nozzle spacing: 50 cm
- height between nozzles and crop or soil (if no crop is present): maximum 50 cm
- description: a shielded spray boom is a structure attached to the spray boom of a field spray. The system consists of shielding the nozzles over the full width of the spray boom with a flexible or fixed plate. The shielding is located on at least the front and/or rear of the spray boom, and the height is at least 30 cm measured from the opening of the nozzles

AIR ASSISTANCE(#):

- nozzle spacing: 50 cm
- height between nozzles and crop or soil (if no crop is present): maximum 50 cm
- description: a field sprayer equipped with an active air-assistance system, which distributes the air at high speed and volume by means of a distribution system close to (behind) the nozzles, downwards evenly over the entire width of the spray boom. The air ensures the transport of spray fluid (the droplets) to the crop or uncultivated land. The air assistance settings (speed and direction) must be such that the spray fluid is guided to or into the crop, and that the droplets rebounding is avoided. This also applies to applications on uncultivated land.

TOW CLOTH (WINGSSPRAYER, etc.)(\$):

- nozzle spacing: maximum 33 cm
- height between spray nozzles and crop or soil (if no crop is present): up to 20 cm, tow cloth always has contact with crop/ground
- description: the tow cloth system is a structure attached to the spray boom of a field sprayer. This system consists of a series of parallelogram structures or a beam at suspended hinge points, in which a plastic plate

¹ <https://www.helpdeskwater.nl/onderwerpen/emissiebeheer/@203377/1-neerwaartse/>

is attached over the full width of the spray boom. The nozzles are fixed to the structure in such a way that the angle at which the nozzles spray is equal to the angle of the plate. The caps are also shielded from the wind through the plastic plate.

When using the tow-cloth system, the plastic sheet (the tow cloth) should always rest on the crop and the bare ground. This means that the tow cloth drags through the crop, or drags over the bare ground. The tow cloth has the following functions;

- shielding the nozzles so that the wind takes less hold on the drift-sensitive spray droplets;
- opening of the crop, making the drift-sensitive spray droplets go deeper into the crop
- keeping the spray nozzles at the same height above the crop and the bare ground.

REDUCED SPRAY BOOM (in combination with up to 33 cm cap distance and spray boom stabilisation) (⁶):

- nozzle spacing: maximum 33 cm
- height between nozzles and crop or soil (if no crop is present): maximum 30 cm
- definition: This is a field spray in which the distance between the nozzles is no more than 33 cm and which makes it possible to spray closer to the crop and uncultivated land (soil).

Spray-boom reduction has a positive effect on drift reduction, because the wind, due to the shorter path that the spray fluid travels, has less influence on the flow of spray fluid. As a result, the drift is reduced more than with the standard spraying technique.

ROW OR BED SPRAYER (%):

- nozzle spacing: depending on the application
- height between spray nozzles and crop or soil (if no crop is present): depending on the application
- description: this is a row sprayer used in arable crops/field-scale vegetable cultivation and also for weed control in fruit and tree cultivation. With the row sprayer, strips are sprayed (between the crop row or on the crop row) and not the full field.

The nozzles are placed above the strips that need to be sprayed. This can be either one nozzle or multiple nozzles per strip. The nozzles can potentially be placed at an angle.

SPRAY UNDER CANOPY (⁶):

- nozzle spacing: depending on the application
- height between spray nozzles and crop or soil (if no crop is present): depending on the application
- description: with the spray under the canopy, the nozzles are mounted inside a canopy. The canopy includes the width to be sprayed, with the spray line and canopy being one whole. The hood is constructed in such a way that the width to be sprayed is virtually enclosed. At the front and/or rear of the hood, an opening can be provided that allows the passage of a crop, but keeps the distance to crop or soil minimal. Both sides of the hood (parallel to the crop rows) are completely closed, the distance from the hood to the ground or crop is no more than 10 cm.

The list in Table 1 and Table 1.2 specifies the drift reduction class of nozzles with a

vertex angle of 110° or 120°. The drift reduction class of these nozzles also applies to classic nozzles with a smaller vertex angle of 80° or 90° (but not reversed) as well as for the corresponding even nozzles for band spraying.

For example: the TeeJet AI ISO 025 nozzle is 90 % drift-reducing; this classification is valid for both the TeeJet AI 110025 nozzle (classic, 110° vertex angle) and for the TeeJet AI 80025 nozzle (classic, 80° top angle) and for the TeeJet AI 65 025 E & TeeJet AI 95 025 E (even nozzles for band spraying).

This list concerns a theoretical listing; not all nozzles or nozzle sizes may be commercially available.

Table 1: Large crops (vertical downward-facing spraying)

Make	Nozzle type	Nozzle size	Standard sprayer [*]	Shielded spray boom [§]	Air assistance [*]	Tow cloth (Wingsprayer, etc.) [§]	Lowered spray boom height in combination with up to 33 cm nozzle distance and spray boom stabilisation ^f	Row or bed sprayer ^g	Spray under canopy ^g
			Percentage of drift reduction according to spraying technique:						
Nozzles other than those mentioned in this list:			0	50	75	75	75	75	90
Agrotop	TD *	ISO 015 and larger sizes	50	75	90	90	90	90	90
	TD XL*	ISO 02 - 035	50	75	90	90	90	90	90
		ISO 04 and larger sizes	90	90	90	90	90	90	90
	TD Hispeed *	ISO 02 and larger sizes	75	90	90	90	90	90	90
	Airmix	ISO 02 - 035	50	75	90	90	90	90	90
		ISO 04 and larger sizes	75	90	90	90	90	90	90
	Softdrop	ISO 04 and larger sizes	75	90	90	90	90	90	90
Albuz	AVI	ISO 015 - 05	75	90	90	90	90	90	90
		ISO 06 and larger sizes	90	90	90	90	90	90	90
	AVI twin	ISO 02 - 025	50	75	90	90	90	90	90
		ISO 03 and larger sizes	75	90	90	90	90	90	90
	CVI	ISO 02 and larger sizes	50	75	90	90	90	90	90
	CVI twin	ISO 02 - 025	50	75	90	90	90	90	90
		ISO 03 - 04	50	75	90	90	90	90	90
		ISO 05 and larger sizes	75	90	90	90	90	90	90
	ADI	ISO 03 and larger sizes	50	75	90	90	90	90	90
	ADE	red and larger sizes	50	75	90	90	90	90	90
	AXI	ISO 05 and larger sizes	50	75	90	90	90	90	90
	AVI UC	ISO 02	75	90	90	90	90	90	90
		ISO 03 and larger sizes	90	90	90	90	90	90	90
	Injet	ISO 015	50	75	90	90	90	90	90
		ISO 02 - 05	75	90	90	90	90	90	90
		ISO 06 and larger sizes	90	90	90	90	90	90	90
	ISO F	ISO 05 and larger sizes	50	75	90	90	90	90	90
	LD	ISO 03 - 035	50	75	90	90	90	90	90
		ISO 04 and larger sizes	50	75	90	90	90	90	90
	Minidrift (MD)	ISO 02 and larger sizes	50	75	90	90	90	90	90
	Minidrift duo	ISO 02 and larger sizes	50	75	90	90	90	90	90
	Nanodrift (ND)	ISO 025 and larger sizes	50	75	90	90	90	90	90
	4110	red and larger sizes	50	75	90	90	90	90	90
Pentair Hypro (Lurmark)	DB (Drift beta)	ISO 015 - 025	50	75	90	90	90	90	90
		ISO 03 and larger sizes	75	90	90	90	90	90	90

Make	Nozzle type	Nozzle size	Standard sprayer [*]	Shielded spray boom [§]	Air assistance [*]	Tow cloth (Wingsprayer, etc.) [§]	Lowered spray boom height in combination with up to 33 cm nozzle distance and spray boom stabilisation ^f	Row or bed sprayer [%]	Spray under canopy [@]
			Percentage of drift reduction according to spraying technique:						
	LD (low drift)	ISO 03 and larger sizes	50	75	90	90	90	90	90
	ULD (ultra-low drift)	ISO 03 - 035	50	75	90	90	90	90	90
		ISO 04 and larger sizes	90	90	90	90	90	90	90
	Go (Guardian Air)	ISO 02 and larger sizes	50	75	90	90	90	90	90
	GAT (Guardian Air Twin)	ISO 03 and larger sizes	50	75	90	90	90	90	90
	3D	ISO 08 and larger sizes	50	75	90	90	90	90	90
John Deere	3D Ninety	ISO 03 and larger sizes	90	90	90	90	90	90	90
	LDA (PSLDAQ)	ISO 02 and larger sizes	50	75	90	90	90	90	90
	LDAC (PSLDACQ)	ISO 02 - 05	50	75	90	90	90	90	90
		ISO 06 and larger sizes	75	90	90	90	90	90	90
	PSGAT	ISO 03 and larger sizes	50	75	90	90	90	90	90
	GATC (PSGATCQ)	ISO 02 and larger sizes	50	75	90	90	90	90	90
	ULD (PSULDQ)	ISO 03 - 035	50	75	90	90	90	90	90
		ISO 04	75	90	90	90	90	90	90
		ISO 05 and larger sizes	90	90	90	90	90	90	90
	ULDC (PSULDCQ)	ISO 02	50	75	90	90	90	90	90
		ISO 025	75	90	90	90	90	90	90
		ISO 03 and larger sizes	90	90	90	90	90	90	90
	PSLDMQ	ISO 06 and larger sizes	50	75	90	90	90	90	90
	AULDC (PSAULDCQ)	ISO 025 and larger sizes	75	90	90	90	90	90	90
	3DN (PS3DN90Q)	ISO 03 and larger sizes	90	90	90	90	90	90	90
	ERC (PSERCQ)	ISO 05 and larger sizes	50	75	90	90	90	90	90
	3D	ISO 08 and larger sizes	50	75	90	90	90	90	90
	ID	ISO 015	50	75	90	90	90	90	90
		ISO 02 - 05	75	90	90	90	90	90	90
		ISO 06 and larger sizes	90	90	90	90	90	90	90
	ID-xxx**	ISO 02	50	75	90	90	90	90	90
		ISO 025	75	90	90	90	90	90	90
		ISO 03 and larger sizes	90	90	90	90	90	90	90
Lechler	IDK	ISO 02 - 05	50	75	90	90	90	90	90

Make	Nozzle type	Nozzle size	Standard sprayer [*]	Shielded spray boom [§]	Air assistance [*]	Tow cloth (Wingsprayer, etc.) [§]	Lowered spray boom height in combination with up to 33 cm nozzle distance and spray boom stabilisation ^f	Row or bed sprayer [%]	Spray under canopy [@]
			Percentage of drift reduction according to spraying technique:						
		ISO 06 and larger sizes	75	90	90	90	90	90	90
	IDN	ISO 025 and larger sizes	75	90	90	90	90	90	90
	IDKN	ISO 03 and larger sizes	50	75	90	90	90	90	90
	IDKT	ISO 02 and larger sizes	50	75	90	90	90	90	90
	IDTA	ISO 025 and larger sizes	75	90	90	90	90	90	90
	AD	ISO 03 and larger sizes	50	75	90	90	90	90	90
	LU	ISO 05 and larger sizes	50	75	90	90	90	90	90
	Syngenta 130 PRE)	ISO 05 and larger sizes	90	90	90	90	90	90	90
Nozal	ADX	ISO 02-05	50	75	90	90	90	90	90
		ISO 06 and larger sizes	75	90	90	90	90	90	90
	RRX/ARX	ISO 015 - 035	50	75	90	90	90	90	90
		ISO 04 - 05	75	90	90	90	90	90	90
		ISO 06 and larger sizes	90	90	90	90	90	90	90
	RDX	ISO 02-05	50	75	90	90	90	90	90
		ISO 06 and larger sizes	75	90	90	90	90	90	90
	HDRX	ISO 02	50	75	90	90	90	90	90
		ISO 025	75	90	90	90	90	90	90
		ISO 03 and larger sizes	90	90	90	90	90	90	90
	RFX	ISO 05 and larger sizes	50	75	90	90	90	90	90
	ATX	ISO 02 and larger sizes	50	75	90	90	90	90	90
Syngenta	Turf Nozzle	ISO 04 - 07	75	90	90	90	90	90	90
		ISO 08 and larger sizes	90	90	90	90	90	90	90
	3D Ninety	ISO 03 and larger sizes	90	90	90	90	90	90	90
Teejet	AI/AIC	ISO 015 - 02	50	75	90	90	90	90	90
		ISO 025 - 05	75	90	90	90	90	90	90
		ISO 06 and larger sizes	90	90	90	90	90	90	90
	AI 3070	ISO 025 - 035	50	75	90	90	90	90	90
		ISO 04 and larger sizes	75	90	90	90	90	90	90
	AIXR	ISO 015-05	50	75	90	90	90	90	90
		ISO 06 and larger sizes	75	90	90	90	90	90	90
	AITTJ60	ISO 02 - 025	50	75	90	90	90	90	90
		ISO 03 - 04	50	75	90	90	90	90	90
		ISO 05	50	75	90	90	90	90	90
		ISO 06 and larger sizes	90	90	90	90	90	90	90

Make	Nozzle type	Nozzle size	Standard sprayer [*]	Shielded spray boom [§]	Air assistance [*]	Tow cloth (Wingsprayer, etc.) [§]	Lowered spray boom height in combination with up to 33 cm nozzle distance and spray boom stabilisation [£]	Row or bed sprayer ^g	Spray under canopy ^g
			Percentage of drift reduction according to spraying technique:						
	APTJ	ISO 04 and larger sizes	90	90	90	90	90	90	90
	TT	ISO 03 and larger sizes	50	75	90	90	90	90	90
	TTI	ISO 02	50	75	90	90	90	90	90
		ISO 025 - 05	75	90	90	90	90	90	90
		ISO 06 and larger sizes	90	90	90	90	90	90	90
	TTI60	ISO 02 - 025	75	90	90	90	90	90	90
		ISO 03 and larger sizes	90	90	90	90	90	90	90
	TTJ60 (=TTJ)	ISO 05	50	75	90	90	90	90	90
		ISO 06 and larger sizes	75	90	90	90	90	90	90
	DG	ISO 03 and larger sizes	50	75	90	90	90	90	90
XR/XRC	ISO 05 and larger sizes	50	75	90	90	90	90	90	
ASJ	SFA (standard fan air)	ISO 03 and larger sizes	75	90	90	90	90	90	90
	CFA (compact fan air)	ISO 01 and larger sizes	50	75	90	90	90	90	90
	TFA (twin fan air)	ISO 05 and larger sizes	50	75	90	90	90	90	90
	AFC	ISO 015 and larger sizes	50	75	90	90	90	90	90
Billericay (BFS)	Exray XC	ISO 025 - 04	75	90	90	90	90	90	90
		ISO 05 and larger sizes	90	90	90	90	90	90	90
	PulZar	ISO 02 and larger sizes	50	75	90	90	90	90	90
Bickers	SAI (short air induction)	ISO 03 and larger sizes	50	75	90	90	90	90	90
Wilger	Combo-Jet DR	ISO 025	50	75	90	90	90	90	90
		ISO 03 - 05	75	90	90	90	90	90	90
		ISO 06 and larger sizes	90	90	90	90	90	90	90
	Combo-Jet MR	ISO 04	50	75	90	90	90	90	90
		ISO 05 and larger sizes	75	90	90	90	90	90	90
	Combo-Jet SR	ISO 05 and larger sizes	50	75	90	90	90	90	90
	Combo-Jet UR	ISO 04 - 05	75	90	90	90	90	90	90
		ISO 06 and larger sizes	90	90	90	90	90	90	90
Agroplast	6MSC	ISO 03 and larger sizes	50	75	90	90	90	90	90
	6MSC2	ISO 03 and larger sizes	50	75	90	90	90	90	90
	6MSP2	ISO 04 and larger sizes	50	75	90	90	90	90	90
	8MSC	ISO 04 and larger sizes	75	90	90	90	90	90	90

Make	Nozzle type	Nozzle size	Standard sprayer [*]	Shielded spray boom [§]	Air assistance [*]	Tow cloth (Wingsprayer, etc.) [§]	Lowered spray boom height in combination with up to 33 cm nozzle distance and spray boom stabilisation ^f	Row or bed sprayer ^g	Spray under canopy ^g
			Percentage of drift reduction according to spraying technique:						
MMA of Tecomec	EZK Twin	ISO 03 and larger sizes	50	75	90	90	90	90	90

* the size of the 'injector nozzle' (upper part of the nozzle) determines the drift-reduction percentage

Please note: these are nozzles from Lechler's ID3 series. This concerns the ID-120-xx (C or POM) nozzles, and not the old nozzles ID 120-xx. The difference can be ascertained by whether or not there is a dash between 'ID' and '120'

A side nozzle can also be used on a standard sprayer in combination with drift-reducing nozzle. The following side nozzles are recognised as drift-reducing:									
all unlisted side nozzles			0	/	/	/	/	75	/
Agrotop	TD OC	ISO 02 and larger sizes	50	/	/	/	/	90	/
	Airmix OC	ISO 02 and larger sizes	50	/	/	/	/	90	/
Albuz	OCI	ISO 02 and larger sizes	50	/	/	/	/	90	/
	AVI OC	ISO 02 and larger sizes	75	/	/	/	/	90	/
Hardi	B-jet	ISO 02 and larger sizes	50	/	/	/	/	90	/
Lechler	IS	ISO 02 and larger sizes	50	/	/	/	/	90	/
	IDKS	ISO 04 and larger sizes	50	/	/	/	/	90	/
Teejet	AI UB	ISO 02 and larger sizes	50	/	/	/	/	90	/

/: not applicable

Note: while it is not necessary for the side nozzle to have the same classification as the other nozzles on the sprayer, a side nozzle must have a minimum drift reduction of 50 % to ensure the drift reduction capacity of the sprayer. The percentage of drift reduction of the sprayer is then equal to that of the nozzles on the spray boom. E.g. drift-reduction nozzles of 90 % and a side nozzle of 50 %: the drift reduction of the sprayer is 90 %.

Table 1.1 Air-assisted nozzles

Standard spray boom (50 cm nozzle distance)	50 %		75 %		90 %	
	Liquid pressure (bar)	Air pressure (bar)	Liquid pressure (bar)	Air pressure (bar)	Liquid pressure (bar)	Air pressure (bar)
		≤ 0.35 bar		≤ 0.35 bar		≤ 0.30 bar
Cleanacres Airtec - restrictor 35 (green)	≥ 2.0 bar	≤ 0.55 bar	≥ 3.0 bar		≥ 4.0 bar	
	≥ 2.5 bar					

Cleanacres Airtec - restrictor 40 (blue)	≥ 2.0 bar ≥ 2.5 bar	≤ 0.35 bar ≤ 0.55 bar	≥ 3.0 bar ≥ 4.0 bar	≤ 0.35 bar ≤ 0.30 bar
Cleanacres Airtec - restrictor 50 (yellow)			≥ 2.0 bar ≥ 3.5 bar	≤ 0.70 bar ≤ 1.0 bar ≤ 0.30 bar
HTA D3-21 TK-SS-5	≥ 2.0 bar	≤ 0.5 bar		≥ 2.5 bar ≥ 4.0 bar ≥ 5.0 bar ≥ 6.0 bar ≤ 0.35 bar ≤ 0.40 bar ≤ 0.50 bar ≤ 0.65 bar
HTA D3-21 TK-SS-7.5	≥ 2.0 bar	≤ 0.50 bar	≥ 2.5 bar ≥ 3.0 bar ≥ 3.5 bar ≥ 5.0 bar ≥ 6.0 bar	≤ 0.30 bar ≤ 0.35 bar ≤ 0.40 bar ≤ 0.50 bar ≤ 0.60 bar ≤ 0.30 bar ≤ 0.35 bar
TeeJet AirJet TKSS 10/35	≥ 2.0 bar ≥ 2.5 bar ≥ 6.0 bar	≤ 0.35 bar ≤ 0.50 bar ≤ 0.75 bar	≥ 3.0 bar	≤ 0.35 bar
TeeJet AirJet TKSS 10/42	≥ 2.0 bar ≥ 2.5 bar	≤ 0.35 bar ≤ 0.5 bar	≥ 2.5 bar	≤ 0.35 bar ≤ 0.35 bar
John Deere Twin Fluid TK10/35	≥ 5.0 bar ≥ 6.0 bar	≤ 0.5 bar ≤ 0.75 bar	≥ 3.0 bar	≤ 0.35 bar ≤ 0.35 bar
John Deere Twin Fluid TK10/42	≥ 5.0 bar	≤ 0.5 bar	≥ 6.0 bar	≤ 0.75 bar ≤ 0.35 bar
All other measuring systems 0% drift reduction				
Reduced spray boom (25 cm nozzle distance, max.) 30 cm tree height)				
Agrifac HTA10/39-TKSS4			All other measuring systems	≥ 3.0 bar ≥ 5.0 bar ≤ 0.80 bar ≤ 1.0 bar
Cleanacres Airtec NAP06LD 90 type 35 (green)			All other measuring systems	≥ 4.0 bar ≤ 0.30 bar
Cleanacres Airtec NAP06LD 90 type 40 (blue)			All other measuring systems	≥ 4.0 bar ≤ 0.30 bar
Agrifac field sprayer with HTA DriftControlPlus and reduced spray boom				

+ air liquid mixing nozzles Agrifac HTA 10/39-TKSS4 + edge mode cap (side cap) Agrifac 10/39-TKSS4 + spray nozzle distance 25 cm + nozzle height maximum 30 cm		All other measuring systems	≥ 90% drift reduction set on screen EcotronicPlus system
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Hedges with horizontal crops

The presence of hedges on the plot edge can reduce the drift of plant protection products outside the treated plot. However, in order to be able to deem hedges as a drift-mitigating measure, these should be combined by standard with other drift-reducing measures that are already legally classified as at least 50 % drift reducing. Table 1.2 specifies the drift reduction class that can be achieved when using hedges.

In general, three cases can be distinguished:

- absence of a hedge
- presence of hedge without foliage
- presence of a hedge with foliage

Conditions to be met by a hedge:

- the height of the hedges must be at least 1.5 m and must be at least as high as the cultivation to be treated;
- the hedge is considered to be part of the cultivated plot;
- the hedge must consist of trees or leaf shrubs and not conifers;
- the hedge must enclose the entire plot, except where the purpose of the hedge is solely to protect the surface water. In the latter case, the hedge must at least border the entire side along the surface water;
- the hedge must not have any opening (e.g. as a result of cutting low branches)
- the hedge must be continuous. It cannot consist of multiple interrupted sections;
- in order to qualify for the 'hedge with foliage' class, the leaves must be present throughout the length of the hedge;
- the distance between the hedge and surface water must take account of the regional legislation in force.

Table 1.2: Hedges with horizontal crops

Percentage drift reduction assigned in Table 1 or Table 1.1 (absence of a hedge):	Presence of a hedge without foliage:	Presence of a hedge with foliage:
0	0	0
50	75	90
75	90	90
90	90	90

CHAPTER 2 SPRAYING OTHER THAN VERTICAL DOWNWARDS

In fruit crops (orchard and shrubs), the classification of nozzles for arable crops (see Table 1) as well as the classification of certain sprayers and hedges in fruit cultivation (see Table 2a and Table 2b) can be used. The classification is based on the direction of the spraying flow (spraying aimed at the soil see Table 1; spraying not aimed at the soil see Table 2a and Table 2b).

For the cultivation of hops, the anti-drift classification takes into account the different combinations of sprayers and nozzles as well as the presence of a hedge or screen between the plot and the surface water (see Table 2a and Table 2b).

The presence of hedges or anti-drift screens on the plot edge can reduce the drift of plant protection products outside the treated plot. However, in order to be able to charge hedges or anti-drift shields as a drift mitigating measure, they must be combined by default with other drift-reducing measures that are already legally classified as at least 50 % drift-reducing.

In general, three cases can be distinguished:

- absence of a hedge
- presence of hedge without foliage
- presence of an anti-drift screen or a hedge with foliage

Conditions to be met by an anti-drift screen or hedge:

- the anti-drift screen or hedge must be at least as high as the fruit trees or hops;
- the hedge is considered to be part of the cultivated plot;
- the hedge must consist of trees or leaf shrubs and not conifers;
- the anti-drift screen or hedge shall enclose the entire plot, except if the anti-drift screen or hedge is intended only to protect the surface water. In the latter case, the anti-drift screen or hedge must at least drill off the entire side along the surface water;
- the hedge must not have any opening (e.g. as a result of cutting low branches)
- the hedge must be continuous. It cannot consist of multiple interrupted sections;
- in order to qualify for the 'hedge with foliage' class, the leaves must be present throughout the length of the hedge;
- the distance between the hedge and surface water must take account of the regional legislation in force.

Table 2a: Orchards/Hop (other than vertically downward spraying): no hedge or anti-drift screen

The note '(*hops)' in Table 2a below means that in hops cultivation, the use of a minimal 50% drift reducing air mixing nozzles combined with a one-sided treatment of the two outer rows (i.e. towards the centre of the plot, no nozzle should spray towards the surface water) allows a drift reduction of 90 %. Thus, one of the two rings of nozzles has to be covered.

The list specifies the drift reduction class of nozzles with or without a top angle. The drift reduction class of these nozzles also applies to nozzles of the same nozzle type and nozzle size with smaller top corners (but not the other way around).

Make	Type	Nozzle size	Percentage of drift reduction according to spraying technique			
			No hedge or anti-drift screen			
			Classic sprayer: An axial or centrifugal air-assisted sprayer with air deflector plates and hydraulic nozzles	Cross-flow sprayer: An air-assisted sprayer with a semi-horizontal air outlet obtained by means of individual nozzles or a closed boom	Cross-flow sprayer equipped with green detection sensors , these sensors must be switched on Hail nets	Tunnel sprayer: a spraying system with full boom coverage and with air and fluid recirculation Cross-flow sprayer with reflection
Agrifac	Type		50 %	50 %	75 %	99 %

Make	Type	Nozzle size	Percentage of drift reduction according to spraying technique			
			No hedge or anti-drift screen			
			Classic sprayer: An axial or centrifugal air-assisted sprayer with air deflector plates and hydraulic nozzles	Cross-flow sprayer: An air-assisted sprayer with a semi-horizontal air outlet obtained by means of individual nozzles or a closed housing	Cross-flow sprayer equipped with green detection sensors, these sensors must be switched on Hail nets (completely closed)	Tunnel sprayer: a spraying system with full boom coverage and with air and fluid recirculation Cross-flow sprayer with reflection (completely closed)
	D3-21					
Agrotop	Airmix no drift	ISO 025 and larger sizes	50 % (* hops)	50 % (* hops)	75 % (* hops)	99 %
	Airmix AM	ISO 02 and larger sizes	50 % (* hops)	50 % (* hops)	75 % (* hops)	99 %
	TD	ISO 015 and larger sizes	50 % (* hops)	50 % (* hops)	75 % (* hops)	99 %
	Turbo Drop TDXL	ISO 025 and larger sizes	50 % (* hops)	50 % (* hops)	75 % (* hops)	99 %
Albuz	ADE	Red and larger sizes	50 %	50 %	75 %	99 %
	AVE	Yellow and larger sizes	50 % (* hops)	50 % (* hops)	75 % (* hops)	99 %
	AVI	80-01 and larger sizes	75 % (* hops)	75 % (* hops)	90 % (* hops)	99 %
	AVI twin	04	50 % (* hops)	50 % (* hops)	75 % (* hops)	99 %
	CVI	80-01 and larger sizes	75 %	75 %	90 %	99 %
	TVI	80-0050	75 %	75 %	90 %	99 %
		80-0075	75 %	75 %	90 %	99 %
		80-01 and larger sizes	90 %	90 %	99 %	99 %
	ADI	110-03 and larger sizes	50 %	50 %	75 %	99 %
Billireca y	Bubble jet	ISO 03-05	50 % (* hops)	50 % (* hops)	75 % (* hops)	99 %
Cleanacres	Airtec	035-050	50 %	50 %	75 %	99 %
Hardi	ISO LD	03 and larger sizes	50 %	50 %	75 %	99 %
	LD 4110	Red and larger sizes	50 %	50 %	75 %	99 %
	MD 110	ISO 02-05	50 % (* hops)	50 % (* hops)	75 % (* hops)	99 %
	S Injet	ISO 015 and larger sizes	50 % (* hops)	50 % (* hops)	75 % (* hops)	99 %
Hypro or	DB	ISO 015	50 %	50 %	75 %	99 %

Make	Type	Nozzle size	Percentage of drift reduction according to spraying technique			
			No hedge or anti-drift screen			
			Classic sprayer: An axial or centrifugal air-assisted sprayer with air deflector plates and hydraulic nozzles	Cross-flow sprayer: An air-assisted sprayer with a semi-horizontal air outlet obtained by means of individual nozzles or a closed housing	Cross-flow sprayer equipped with green detection sensors, these sensors must be switched on Hail nets (see table 1)	Tunnel sprayer: a spraying system with full boom coverage and with air and fluid recirculation Cross-flow sprayer with reflection (see table 2)
Lurmark		and larger sizes	(* hops)	(* hops)	(* hops)	
	LD	03 and larger sizes	50 %	50 %	75 %	99 %
John Deere	Twin Fluid	35 and larger sizes	50 %	50 %	75 %	99 %
Lechler	AD	90-01 and larger sizes	75 %	75 %	90 %	99 %
	ID	90-01 and larger sizes (> 5 bar)	75 % (* hops)	75 % (* hops)	90 % (* hops)	99 %
		90-01 and larger sizes (max. 5 bar)	90 %	90 %	99 %	99 %
	IDK	90-0067 and larger sizes (> 3 bar)	75 % (* hops)	75 % (* hops)	90 % (* hops)	99 %
		90-0067 and larger sizes (max. 3 bar)	90 %	90 %	99 %	99 %
	IDKN	ISO 04	50 % (* hops)	50 % (* hops)	75 % (* hops)	99 %
	IDN	ISO 025 and larger sizes	50 % (* hops)	50 % (* hops)	75 % (* hops)	99 %
	ITR	80-01 and larger sizes	90 %	90 %	99 %	99 %
	AI	ISO 015 and larger sizes (>3 bar)	75 % (* hops)	75 % (* hops)	90 % (* hops)	99 %
		80-015 and larger sizes (max. 3 bar)	90 %	90 %	99 %	99 %
Teejet	AITX A/B	80-015 and larger	75 %	75 %	90 %	99 %
	DG	80-02	75 %	75 %	90 %	99 %

Make	Type	Nozzle size	Percentage of drift reduction according to spraying technique			
			No hedge or anti-drift screen			
			Classic sprayer: An axial or centrifugal air-assisted sprayer with air deflector plates and hydraulic nozzles	Cross-flow sprayer: An air-assisted sprayer with a semi-horizontal air outlet obtained by means of individual nozzles or a closed housing	Cross-flow sprayer equipped with green detection sensors, these sensors must be switched on Hail nets (complete)	Tunnel sprayer: a spraying system with full boom coverage and with air and fluid recirculation Cross-flow sprayer with reflection (complete)
		and larger sizes				
	DG	110-03 and larger sizes	50 %	50 %	75 %	99 %
	TT	03 and larger sizes	50 %	50 %	75 %	99 %
	TTI	015 and larger sizes	50 % (* hops)	50 % (* hops)	75 % (* hops)	99 %
	Twinfluid TKSS	35 and larger sizes	50 %	50 %	75 %	99 %
all nozzles not listed in this table including swirl nozzles			0 %	0 %	50 %	90 %

Table 2b: Orchards/Hop (other than vertically downward spraying): hedge on the edge of the plot or anti-drift screen

The list specifies the drift reduction class of nozzles with or without a top angle. The drift reduction class of these nozzles also applies to nozzles of the same nozzle type and nozzle size with smaller top corners (but not the other way around).

Make	Type	Nozzle size	Percentage of drift reduction according to spraying technique			
			Hedge on the edge of the plot or anti-drift screen			
			Classic sprayer: An axial or centrifugal air-assisted sprayer with air deflector plates and hydraulic nozzles	Cross-flow sprayer: An air-assisted sprayer with a semi-horizontal air outlet obtained by means of individual nozzles or a closed housing	Cross-flow sprayer equipped with green detection sensors , these sensors must be switched on Hail nets	Tunnel sprayer: a spraying system with full boom coverage and with air and fluid recirculation Cross-flow sprayer with reflection
Agrifac	Type D3-21		without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
Agrotop	Airmix no drift	ISO 025 and larger sizes	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
	Airmix AM	ISO 02 and larger sizes	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
	TD	ISO 015 and larger sizes	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
	Turbo-Drop TDXL	ISO 025 and larger sizes	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
Albuz	ADE	Red and larger sizes	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
	AVE	Yellow and larger sizes	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
	AVI	80-01 and larger sizes	without a blade: 90 % with blade: 99 %	without a blade: 90 % with blade: 99 %	without a blade: 99 % with blade: 99 %	99 %
	AVI twin	04	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
	CVI	80-01 and larger sizes	without a blade: 90 % with blade: 99 %	without a blade: 90 % with blade: 99 %	without a blade: 99 % with blade: 99 %	99 %
	TVI	80-0050	without a blade: 90 % with blade: 99 %	without a blade: 90 % with blade: 99 %	without a blade: 99 % with blade: 99 %	99 %

Make	Type	Nozzle size	Percentage of drift reduction according to spraying technique			
			Hedge on the edge of the plot or anti-drift screen			
			Classic sprayer: An axial or centrifugal air-assisted sprayer with air deflector plates and hydraulic nozzles	Cross-flow sprayer: An air-assisted sprayer with a semi-horizontal air outlet obtained by means of individual nozzles or a closed housing	Cross-flow sprayer equipped with green detection sensors , these sensors must be switched on Hail nets (see table 2)	Tunnel sprayer: a spraying system with full boom coverage and with air and fluid recirculation Cross-flow sprayer with reflection (see table 2)
		80-0075	without a blade: 90 % with blade: 99 %	without a blade: 90 % with blade: 99 %	without a blade: 99 % with blade: 99 %	99 %
		80-01 and larger sizes	without a blade: 99 % with blade: 99 %	without a blade: 99 % with blade: 99 %	without a blade: 99 % with blade: 99 %	99 %
	ADI	110-03 and larger sizes	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
Billireca y	Bubble jet	ISO 03-05	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
Cleanacres	Airtec	035-050	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
Hardi	ISO LD	03 and larger sizes	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
	LD 4110	Red and larger sizes	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
	MD 110	ISO 02-05	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
	S Injet	ISO 015 and larger sizes	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
Hypro or Lurmark	DB	ISO 015 and larger sizes	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
	LD	03 and larger sizes	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
John Deere	Twin Fluid	35 and larger sizes	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
Lechler	AD	90-01 and larger sizes	without a blade: 90 % with blade: 99 %	without a blade: 90 % with blade: 99 %	without a blade: 99 % with blade: 99 %	99 %
	ID	90-01 and	without a blade: 90 %	without a blade: 90 %	without a blade: 99 %	99 %

Make	Type	Nozzle size	Percentage of drift reduction according to spraying technique			
			Hedge on the edge of the plot or anti-drift screen			
			Classic sprayer: An axial or centrifugal air-assisted sprayer with air deflector plates and hydraulic nozzles	Cross-flow sprayer: An air-assisted sprayer with a semi-horizontal air outlet obtained by means of individual nozzles or a closed housing	Cross-flow sprayer equipped with green detection sensors , these sensors must be switched on Hail nets (as needed)	Tunnel sprayer: a spraying system with full boom coverage and with air and fluid recirculation Cross-flow sprayer with reflection (as needed)
Teejet		larger sizes (> 5 bar)	with blade: 99 %	with blade: 99 %	with blade: 99 %	
		90-01 and larger sizes (max. 5 bar)	without a blade: 99 % with blade: 99 %	without a blade: 99 % with blade: 99 %	without a blade: 99 % with blade: 99 %	99 %
	IDK	90-0067 and larger sizes (> 3 bar)	without a blade: 90 % with blade: 99 %	without a blade: 90 % with blade: 99 %	without a blade: 99 % with blade: 99 %	99 %
		90-0067 and larger sizes (3 bar)	without a blade: 99 % with blade: 99 %	without a blade: 99 % with blade: 99 %	without a blade: 99 % with blade: 99 %	99 %
	IDKN	ISO 04	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
	IDN	ISO 025 and larger sizes	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
Teejet	ITR	80-01 and larger sizes	without a blade: 99 % with blade: 99 %	without a blade: 99 % with blade: 99 %	without a blade: 99 % with blade: 99 %	99 %
	AI	ISO 015 and larger sizes (> 3 bar)	without a blade: 90 % with blade: 99 %	without a blade: 90 % with blade: 99 %	without a blade: 99 % with blade: 99 %	99 %
		80-015 and larger sizes (max. 3 bar)	without a blade: 99 % with blade: 99 %	without a blade: 99 % with blade: 99 %	without a blade: 99 % with blade: 99 %	99 %
	AITX A/B	80-015 and larger	without a blade: 90 % with blade: 99 %	without a blade: 90 % with blade: 99 %	without a blade: 99 % with blade: 99 %	99 %
	DG	80-02 and larger sizes	without a blade: 90 % with blade: 99 %	without a blade: 90 % with blade: 99 %	without a blade: 99 % with blade: 99 %	99 %
	DG	110-03 and larger sizes	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %

Make	Type	Nozzle size	Percentage of drift reduction according to spraying technique			
			Hedge on the edge of the plot or anti-drift screen			
			Classic sprayer: An axial or centrifugal air-assisted sprayer with air deflector plates and hydraulic nozzles	Cross-flow sprayer: An air-assisted sprayer with a semi-horizontal air outlet obtained by means of individual nozzles or a closed boom	Cross-flow sprayer equipped with green detection sensors , these sensors must be switched on Hail nets	Tunnel sprayer: a spraying system with full boom coverage and with air and fluid recirculation Cross-flow sprayer with reflection
	TT	03 and larger sizes	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
	TTI	015 and larger sizes	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
	Twinflu id TKSS	35 and larger sizes	without a blade: 75 % with blade: 90 %	without a blade: 75 % with blade: 90 %	without a blade: 90 % with blade: 99 %	99 %
all nozzles not listed in this table including swirl nozzles			without a blade: 0 % with blade: 0 %	without a blade: 50 % with blade: 90 %	without a blade: 75 % with blade: 90 %	99 %

Table 2c: Side nozzles in orchards/hop garden (other than vertical downward spraying):

An side nozzle can also be used on a standard sprayer in combination with drift-reducing nozzle. The following side nozzles are recognised as drift-reducing:			
all unlisted side nozzles			0
Agrotop	TD OC	ISO 02 and larger sizes	50
	Airmix OC	ISO 02 and larger sizes	50
Albuz	OCI	ISO 02 and larger sizes	50
	AVI OC	ISO 02 and larger sizes	75
Hardi	B-jet	ISO 02 and larger sizes	50
Lechler	IS	ISO 02 and larger sizes	50
	IDKS	ISO 04 and larger sizes	50
Teejet	AI UB	ISO 02 and larger sizes	50

Note: while it is not necessary for the side nozzle to have the same classification as the other nozzles on the sprayer, a side nozzle must have a minimum drift reduction of 50 % to ensure the drift reduction capacity of the sprayer. The percentage of drift reduction of the sprayer is then equal to that of the nozzles on the spray boom. E.g. drift-reduction nozzles of 90 % and a side nozzle of 50 %: the drift reduction of the sprayer is 90 %.

CHAPTER 3: CONVERSION OF THE SIZE OF THE BUFFER ZONE AS A FUNCTION OF THE APPLIED DRIFT REDUCTION

The size of the buffer zone (2, 5, 10, 20, 30 metres) and the percentage of drift reduction (50, 75, 90%) that must be respected are indicated on the label of the plant protection product. Professional users can adjust the buffer zone according to the product they apply and the material at their disposal (see Table 3a and Table 3b).

Table 3a: Width of buffer zones - Buffer zones for field spraying - arable and vegetable crops (vertical downwards spraying)

	Buffer zones indicated on the label						
	<i>Buffer zone of 2 m with classic techniq</i>	<i>Buffer zone of 5 m with classic techniq</i>	<i>Buffer zone of 10 m with classic techniq</i>	<i>Buffer zone of 20 m with classic techniq</i>	<i>Buffer zone of 20 m with 50 % drift-</i>	<i>Buffer zone of 20 m with 75 % drift-</i>	<i>Buffer zone of 20 m with 90 % drift-</i>
Equivalent buffer zones for drift reduction sprayers/devices							
<i>Classic techniq</i>	2 m	5 m	10 m	20 m	30 m	40 m	200 m
<i>50% drift</i>	1 m	2 m	5 m	10 m	20 m	30 m	40 m
<i>75% drift</i>	1 m	2 m	2 m	5 m	10 m	20 m	30 m
<i>90% drift</i>	1 m	1 m	1 m	1 m	5 m	10 m	20 m

Table 3b: Width of buffer zones - Buffer zones for vertical crops (other than vertical downward spraying) (*)

	Buffer zones indicated on the label						
	<i>Buffer zone of 5 m with classic techniq</i>	<i>Buffer zone of 10 m with classic techniq</i>	<i>Buffer zone of 20 m with classic techniq</i>	<i>Buffer zone of 20 m with 50 % drift-</i>	<i>Buffer zone of 20 m with 75 % drift-</i>	<i>Buffer zone of 20 m with 90 % drift-</i>	<i>Buffer zone van 30 m with 90 % drift-</i>
Equivalent buffer zones for drift reduction							
<i>Classic techniq</i>	5 m	10 m	20 m	30 m	40 m	50 m	150 m
<i>50% drift</i>	3 m	5 m	15 m	20 m	30 m	40 m	75 m
<i>75% drift</i>	3 m	3 m	10 m	15 m	20 m	30 m	50 m
<i>90% drift</i>	3 m	3 m	5 m	10 m	15 m	20 m	30 m
<i>99 % drift</i>	3 m	3 m	3 m	3 m	3 m	3 m	10 m

(*) : For applications on soil (e.g. herbicides), see previous table (buffer zones for sprayers)

Considered to be annexed to the Ministerial Order of **xx xxx 2025** amending the Ministerial Order of 1 April 2021 establishing drift-reducing agents or measures.

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