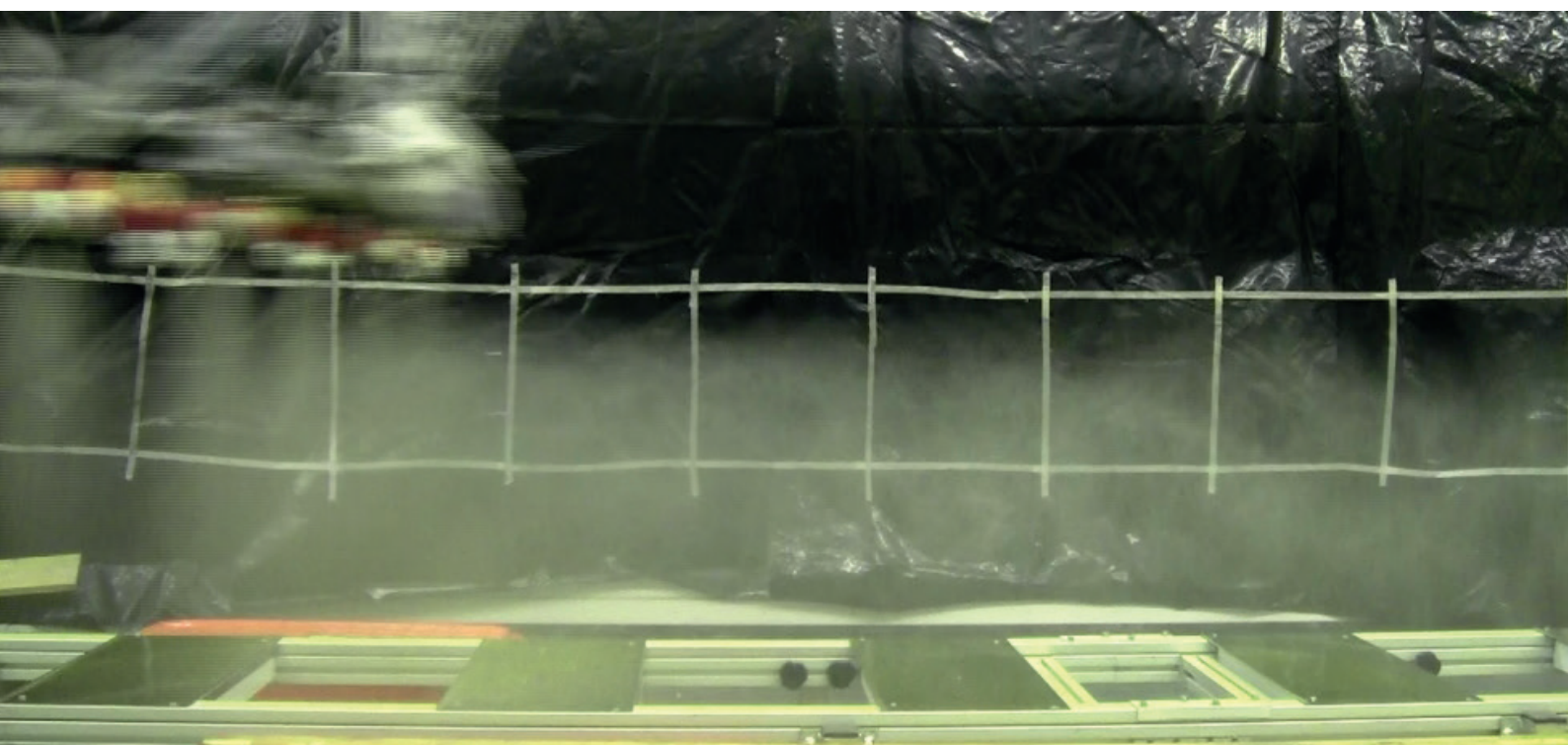# Indoor spray measurement of spray drift potential using a spray drift test bench

Effect of drift-reducing nozzle types, spray boom height, nozzle spacing and forward speed

BSc Thesis

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Supervisors:Jan van de Zande & Emilio Gil

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Table of contents

Preface

I did a BSc internship Agroenvironmental & Landscape Engineering from Universitat Politècnica de Catalunya at Wageningen University and Research Centre, Plant Research International in the period from February 2014 until July 2014 within the pesticide application group led by Jan van de Zande. I worked intensively together with Lars Kraak BSc student of Wageningen University Dept. Agricultural Engineering and Pleun van Velde, Hein Stallinga and Jean-Marie Michielsen (WUR-PRI). The subject I worked on was the quantification of the potential spray drift as measured by using a spray drift testbench (kindly provided by AAMS, Maldegem, Belgium).
The work was supervised by Prof. Emilio Gil from Escola Superior d'Agricultura de Barcelona from Universitat Politècnica de Catalunya.

Acknowledgement for the good time and the great experience for all the members of PRI-Agro team involved in this project which supported, helped and worked together since the beginning. Thanks to Unifarm group for their support and help within the development of the project. And finally acknowledgement for the UMA team to bring the opportunity to develop this project and its support.

Wageningen, July 2014

Abstract

J.R. Moreno Ruiz, 2014. Indoor spray measurement of spray drift potential using a spray drift testbench. Effect of drift-reducing nozzle types, spray boom height, nozzle spacing and forward speed. Wageningen UR – Plant Research International, WUR-PRI Report 583, Wageningen. 2014.

In a series of indoor experiments spray drift potential was assessed when spraying over a spray drift testbench with two different driving speeds, 2m/s and 4m/s, two different spray boom heights, 30 cm and 50 cm, and two different nozzle spacing, 25 cm and 50 cm, for six different nozzle types. The nozzles types used were the standard flat fan XR as a reference nozzle and the DG, XLTD, IDN, AIXR and AIRmix as drift reducing nozzles types. A Patternator was used to check the cross distribution for the different nozzle types and settings. Spraying tests were carried out by adding the fluorescent dye Brilliant Sulfo Flavine to the spray agent. Potential spray drift deposition was measured placing collectors along the testbench quantifying the deposition of the spray plume behind the moving spray boom in windstill conditions. Results obtained from two laboratories set ups differ because of the variability of relative humidity in one laboratory. Spray drift reducing capability can be different at different settings depending on the nozzle type.

Key words: spray drift, testbench, patternator, nozzle types, spray boom height, nozzle spacing, forward speed, spray drift reduction, spray drift potential

Table of Figures

1.   Introduction

In last years the use of plant protection product (PPP) for crop protection has become very relevant regarding to the environmental impact induced by the amount of PPP carried out of the treated area by the action of air currents during the application process, defined as spray drift. Induced spray drift is able to arrive to unwanted areas such as nearby crops, adjacent plots, waterways and residents, with all its consequences, creating a risk for human health and the environment and is therefore an important parameter in the authorisations procedure of PPP (CRD, 2014; Ctgb, 2014; SANCO, 2011). Spray drift is also an undesired phenomenon because it causes great economic losses (EPA, 2014) especially of herbicide applications (Bali et al., 1002; MDA, 2010).

Many improvements have been done to optimize the spray management in order to prevent such environmental impact. Spray drift reduction and improvements in the efficiency of pesticide application processes are goals of the 128/2009/EC European Directive for a Sustainable Use of Pesticides (SUPD) (EP, 2009). However more improvements must be done since it is mentioned in the EU SUPD and the Machine Directive 2006/42/EC amended in 2009/127/EC that new sprayers coming to the market shall show their drift reducing capabilities.

As field measurements are costly and hard manageable a spray drift test bench was developed at the Department of Agriculture Forest and Food Sciences (DISAFA) of the University of Turin (Balsari et al. 2007) in order to characterize the drift potential value. This test bench is the basis for the development of an international standard (ISO22401, 2014), *Equipment for crop protection – Method for measurement of potential drift from horizontal sprayer systems by the use of a test bench,* on how to perform the measurements and if the results from the measurements produce similar results as the spray drift field measurements following ISO22866, 2005. This test bench will let manufacturers test their spray equipment and quantify the Drift Reduction Potential of their machines.

Spray drift is highly influenced by many factors, which may be grouped into the following categories: equipment and application techniques, spray characteristics, operator care and skill (Arvidsson et al., 2011) and environmental and meteorological conditions. The aim of this study is to determine the effect of the combination of many factors and determine the Drift Potential Value (DPV) of the main setting used in pesticide application in the European Union. DPV is defined as the amount of initial spray volume that remains suspended in the air after the sprayer passage and which represents the fraction of spray liquid susceptible to spray drift out of the treated area by the action of air currents during the application process. The study was performed in controlled environmental conditions and no wind and studied the differences of major factors as nozzle type, spray boom height, nozzle spacing and sprayer speed.

The effect of nozzle type, nozzle size, spray pressure and boom height on drift has been analysed (Nuyttens, 2007) according *ISO 22866* and also a classification was done for drift reducing nozzles and colour coding for identification (ISO10625, 2005). Another relevant factor regarding sprayed drift is the driving speed, and it is already demonstrated a clear effect of forward speed, getting higher spray drift values for higher driving speeds (van de Zande et al., 2005).

Objectives of this study are to determine the effect on DPV of different drift reducing nozzles, of driving speeds (2 and 4 m s^{-1}), of boom heights (30 and 50 cm) and of nozzle spacing (25 and 50 cm), spraying along the testbench.

In order to determine the effect of sprayer speed, nozzle type, nozzle orientation, boom height, boom construction, on the DPV and to validate the spray drift model IDEFICS (Holterman et al., 1997) investigations by the test bench were done in the Wageningen UR-PRI Spray Technology Laboratory.

1.1   Background

Our study is aimed to characterize the effect on DPV of different drift reducing nozzles, already tested in field experiments done before (van de Zande et al., 2014)., compared by a standard reference nozzle and see the differences between them and differences with different combinations of boom height, spacing between nozzles and forward speed for each nozzle type in a controlled environmental conditions and no wind.

To make this possible, spraying tests were done in the WUR-PRI Spray Technology Laboratory, which is provided by an environmental control system that allows to regulate the environment (temperature, humidity) of the chamber as convenience for the study, in order to know the DPV for these different settings in a specified environmental condition.

Comparisons are also made with the results from the same nozzle types running over a standard drift test bench (Gil, 2013) and with some field experiments as well with the same nozzle types (van de Zande et al., 2014).. Another comparison is also made with the results of the speed effect during the spray (van de Zande et al., 2005). Finally the IDEFICS model is validated and adjusted with results obtained in this study.

A Patternator (AAMS, following ISO5682) was used to verify the properly flow rate of the nozzles and the cross distribution for each different setting.

2.   Materials and Methods

Experiments were carried out at the Wageningen UR, Netherlands, where the Spray Technology Laboratory is placed. The laboratory provides all necessary materials and devices to perform the experiments and their analysis. Measurements with the Patternator were done at the Spraying Chamber to check the flow rate and cross distribution for each nozzle type and setting.

When measurements from the Patternator were done, the test bench was built in the spraying chamber following the Standard ISO22401 as possible as dimensions of the place allowed. However, because of the requirements of the experiments especially the sprayer speed effects, we were not able to success and we had to find an alternative site to perform part of the experiments.

Spray drift was caught over Technofill collectors which were analysed at the analysis laboratory adjoining to the spraying chamber.

All devices and materials used in these experiments and also the laboratories where experiments were done are explained in the following paragraphs.

2.1   Spray Technology Laboratory

Experiments were done in two different places in order to get the properly spray deposition and follow the requirements of the ISO 22401.

2.1.1   Spraying Chamber

The Wageningen UR is provided by a watertight spraying chamber which its environmental conditions were controlled by a complex system. In this spraying chamber there is built the sprayer track which consists of a 14 m steel frame along the full length of the room. A spraying system at which the spray boom was built was hanging at the track. Dimensions of this laboratory didn't allow to do the experiments by the high speed, 4 m s^{-1}, getting high and uncommon values of deposition at the beginning of the test bench due to the fact that the sprayer didn't achieve the properly speed before reaching the test bench. The start-up distance was too short for the specified requirements.

Figure 1.   Spraying Chamber set up.

2.1.2   Droevendaal Experimental Farm

At the Droevendaal Experimental Farm complex was used the shed that was originally used to be an organic farm, which is closed and is therefore without air flows inside. To perform the experiments and avoid polluting all the material inside the shed a 30 m length plastic covered basin was built where the sprayer track and the test bench were placed next to each other. This track is a 25m long aluminium railway on top of which the spraying body is running. In order to know the environmental conditions a meteorological station was set up in the shed where temperature, the relative humidity and wind speed could be checked.

Figure 2.   Droevendaal farm set up.

2.2   Sprayer

As experiments were done in two different laboratories (Spray Technology Laboratory and Droevendaal Experimental Farm) the sprayer for each place had to be adapted.

The main sprayer consisted in a 2 m steel boom built on the WUR-PRI spray technology laboratory sprayer track, equipped by 5 nozzles for the 50 cm nozzle spacing and by 9 nozzles for the 25 cm nozzle spacing.
The sprayer was linked to software (*EXO4,* developed by *Regin*, which allowed to use the system. Through this software the pump could be started and stopped and the spray pressure at the spray boom and the room environment could be controlled, Test bench experiments required to work in determinate conditions of temperature and relative humidity (set at 20°C and 70% RH)

At the Droevendaal location a different sprayer track had to be built which was equipped with a 2 m aluminium boom, by 5 nozzles for the 50cm nozzle spacing and by 7 nozzles for the 25 cm nozzle spacing, reducing the boom width to 1.5 m. This sprayer is simpler to operate than the first one and just needs to be linked to a remote control to operate. This sprayer was fed by a portable pump where there was the spraying liquid.
Both spray booms were provided with a manometer on the entrance edge of the spray boom and a valve to adjust the pressure.

2.3   Nozzle type

Nozzles were selected from earlier experiments done before with the same nozzle types, selected also from the certified Drift Reduction list (TCT, 2013) and tested with the IDEFICS model (van de Zande et al, 2012). To be able to check the effect on DPV for different drift reducing nozzle types the sprayer was set up with nozzles from the spray drift reduction classes: 0%, 50%, 75%, 90% and 95%.

Table 1.   Nozzle types and specifications used in our experiments.

Nozzle Type	Manufacturer	Spray Pressure (bar)	Flow Rate (l min^{-1})	Drift Reduction Class	VMD (µm)	Characteristics
XR 110.04	*Teejet*	3	1,6	0%	274	Standard flat fan
DG 110.04	*Teejet*	3	1.6	50%	322	Pre-orifice flat fan
IDN 120.03	*Lechler*	3	1.2	75%	573	Venturi flat fan
XLTD 110.04	*Agrotop*	3	1,6	90%	485	Venturi flat fan
AIXR 110.04	*Teejet*	1	0.9	90%	646	Venturi flat fan
AIRmix 110.05	*Agrotop*	1	1.2	95%	648	Venturi flat fan

from: Van de Zande et al. 2012

Figure 3.   Nozzle types used in the experiments. From left to right: XR, DG, AIXR, AIRmix, IDN, XLTD.

2.4   The Patternator

The Patternator is a device used to measure horizontal spray distribution while spraying above a surface with a number of equally spaced grooves which divides the spray and collects the volume or mass of spray deposited into each groove (ISO5682). The patternator used was about 2,5 meters wide and its surface was composed of discrete grooves, each 25mm wide, which was sloped and therefore conducted the sprayed water into test tubes in front of the Patternator. The device had 99 test tubes and it was also provided with a laser distance reader which, through software (AAMS), could read the amount of liquid in the test tubes and its respective height. The data obtained by this software is in a *".meas"* file a transformation had to be done to an *Excel* file: *".xlsx"*
The spray boom was built on the Patternator's top and its height and depth in respect the edge was adjustable. The spray boom was fed with tap water from the sprayer pump.

Figure 4.   The Patternator.

2.4.1   Patternator's calibration

Firstly the laser reader had to be adjusted to ensure it gave always the same reading for the same amount of liquid in a tube. To do this calibration some steps were followed which are explained below.

- Fill up the tubes with a known amount of liquid.

    For this process a dispenser carafe was used, provided with a 10ml pump precision and another one by 50ml. To be sure that the dispensers worked properly and gave always the same amount a precision balance was used where containers' weight was measured.

Figure 5.   Dispenser bottles.

- Begin the measurements

When all tubes were filled up with a defined amount of water (e.g. 50 ml) measurements could be made with the relevant software. This software gave two values: the amount of liquid in the tube and the height between the top of the liquid level and the laser reader. There was a white floating plastic inside each tube to indicate the top of the liquid level in the tubes.

When tubes were filled until 0ml, 10ml, 20ml, 30ml, 40ml, 50ml, 70ml, 150ml and 170ml a measurement was done. For each treatment five replicates were done to check if the laser gave the same value for each tube with the same amount of liquid, which had to be the same since it was an accurate filling up.

To manage these measurements some statistical calculation was done like the average and the standard deviation with its coefficient of the variance which are showed in Table 2.

Table 2.   *Measurements summary of the patternator calibration.*

	Laser Reading					
	Liquid amount (ml)			Height (mm)		
tube content	Mean	SD	VC	Mean	SD	VC
10 ml	14,3	0,80	5,57%	853,0	2,14	0,25%
20 ml	23,6	0,91	3,84%	823,1	2,66	0,32%
30 ml	29,5	0,74	2,50%	793,6	2,36	0,30%
40 ml	39,6	0,70	1,77%	762,1	2,54	0,33%
50 ml	48,8	0,66	1,35%	733,1	2,28	0,31%
60 ml	58,6	0,77	1,31%	702,6	3,09	0,44%
70 ml	67,8	0,69	1,02%	673,8	2,73	0,41%
150 ml	149,1	0,69	0,46%	424,6	2,59	0,61%
170 ml	172,0	0,77	0,45%	355,8	1,78	0,50%

- Calibration

Once these measurements were determined, the calibration could start. In this step the software gave us just the height reading, but the amount of liquid that there is in the tubes must to be introduced, that had to be the same for each tube. This process calibrated each tube separately, and if there was any different height between tubes, software showed it but the content in the tubes was the same. To calibrate the Patternator was needed the calibration at a low level and also at a high level of liquid in the tubes. Many calibrations were done to guess which ones were the properly, and finally for the low calibration was chosen tubes filled up until 20ml and for the high one, tubes filled up until 170ml. Therefore, with this calibration done, heights of 20ml and of 170ml in each tube were determined. Then the Patternator was calibrated assuming linearity between the two height measurements. Figure 6 shows the distribution of both calibration and in the table below there are indicated their average and coefficient of variance between tubes.

Figure 6.   *Linear distribution of patternator calibration for 20ml and 170ml per tube.*

2.4.2 Nozzle choice

Once the Patternator was properly calibrated measurements could be done for the cross distribution with the nozzles selected and would be used in next experiments.

To make the right nozzle choice the flow rate at the sprayer must be checked to be sure that it was the proper one. For this step five XR 110.04 tested nozzles were used to spray, which their flow rate was known for a determined pressure. This test was done twice and then the best control nozzle was chosen. Results collected are presented in Table 3:

Table 3.   Control nozzles results.

Nozzle	Flow Rate (l/min)	CV	Spray Pressure (bar)
1	1.555	0.23%	2.85
2	1.599	0.11%	2.85
3	1.545	0.23%	2.85
4	1.546	0.11%	2.85
5	1.480	0.00%	2.85

Nozzle number 4 was selected to be the control nozzle because it was the median value of the flow rate obtained between all nozzles.

The flow rate was determined spraying into a ton of known weight for each nozzle for two minutes. When the liquid in tons was collected, tap water in this case, weigh of tons was measured on a balance with ±5% accuracy.

Figure 7.   Balance and ton.

Next step consisted in taking 15 nozzles of each kind would be used. Table 4 shows the nozzle types used in these experiments, which their flow rate for a determinate pressure was known.

Table 4. Nozzle type and flow rate

Nozzle	Manufacturer	Spray Pressure (bar)	Nominal Flow (l/min)
XR 110.04	Teejet	2.95	1.58
		1	0.91
DG 110.04	Teejet	3.2	1.59
IDN 120.03	Lechler	2.95	1.16
XLTD 110.04	Agrotop	2.95	1.64
AIXR 110.04	Teejet	1	0.94
AIRmix 110.05	Agrotop	1	1.21

Once 15 nozzles were chosen next step was to proceed to test them and select the nine best ones to equip on the spraying boom. The procedure was the following for each kind of nozzles.

Spray was carried out in tons with 5 nozzles and the control nozzle for two minutes and then weighs the individual tons. This step was done twice for each nozzle. Results obtained determined the best nozzle paying attention at flow rate values. If results are similar than the control the median was done and the nozzle at the median value and 8 nozzles with the flow rate values closest values to the median value were chosen as the nozzles for the experiments.

In figure 8 we can see the configuration we had chosen to do the experiments. On the top of the sprayer boom draw we find body nozzle positions which are fixed. Number "0" belongs to nozzle body on the boom's centre and every 25 cm of separation is the next nozzle body. Numbers underneath belong to nozzle's numbers that we put in to identify which nozzle we were working with.

Figure 8. Nozzle position at the spray boom and the used nozzle numbers (bottom row) at the positions of the nozzle bodies (top row) for the used nozzle types.

2.4.3 Cross distribution

This was the main part about our experiments with the Patternator. It consisted in spraying with the chosen nozzles on the Patternator and collect the flow from the grooves into the different test tubes to be read by the laser. The laser reading gave some data regarding to the amount of liquid inside each tube which must be worked by "*excel*" to get its respective distribution.

The procedure of this experiment consisted in collecting the liquid in the tubes. To collect the liquid the surface where test tubes were placed was turned by a lever, and with the help of some conductors placed in the edge of the Patternator grooves the liquid is going inside the tubes (Figure 9). The spraying time was measured in every repetition to be able to estimate the flow rate obtained and determinate the variance between different repetitions regarding to the spraying time, so when the spray started time must be controlled by a stopwatch. The spray stopped when the tubes became almost full and recorded spray time.

Figure 9.   Conductors' detail guiding the water flow from the grooves into the tubes.

Experiments were done spraying with different settings. There were four different positions to spray and check which one was the best for each kind of nozzle. These settings were related to the spray boom height and the space between the spray nozzles. The experiments were done at two different heights and also for two different nozzle spacing.

- Boom Height: 30 cm   -   Nozzle Spacing: 25 cm
                              50 cm   50 cm

The spacing means that when spraying by 25cm spacing the spraying was with nine nozzles, the whole spraying boom, and when spraying by 50cm spacing just 5 nozzles were used which were placed in the even numbered nozzle bodies.

Five repetitions were done for each nozzle in every different setting to ensure that results were right. Tap water was used for these tests.

2.5   Test Bench

The testbench designed at DISAFA (Balsari et al., 2007) consists of a frame track provided with slots where collectors are placed, which is equipped with a sliding cover which allows covering or revealing the collector as needed. Slots are 0.5m spacing from each other.
The sliding covers are linked to an automatic pneumatic system which enables covering or uncovering of the deposit collector by the boom passing all at the same time. The mechanism is activated when the spray boom hits the switch pole. As the switch pole is abroad from the testbench it avoids to spray directly to the collectors on the slots. The test bench was placed 0.5 m above the ground in such a way that the centre of the collectors was underneath the central nozzle at the spray boom.
Collectors were placed outside the covered slots to check the total sprayed deposition. Three collectors were placed, left and right side and one on the middle of the testbench, in the beginning, half-way and the end of the testbench.

- Spraying Chamber

18

In this laboratory the length of the testbench had to be adapted to the length available on the chamber and placing the testbench according with the speed needs, to make sure the spray boom arriveed to the testbench position with the right speed and had enough space to brake after hit the switch at the same speed.

The length of the test bench was 8m with 16 collectors to check the drift sprayed deposition and 9 to check the total sprayed deposition for each trial.

The switch pole was placed 0.6m after the last collector because of the available space.

Figure 10.   Testbench set up at the Spraying Chamber.

- Droevendaal Experimental Farm
  The dimensions of this place allowed to build a 10m test bench with a 25m spray track. For the experiments done in this laboratory 20 collectors were placed to check the drift sprayed deposition and 9 to check the total sprayed deposition for each trial. Starting distance travelled before entering the test bench was 8 m and stopping distance after the switch pole was 7 m (total length was 25 m).
  The switch pole was placed 0.6 m from the testbench, at the same distance as in the Spraying Chamber in order to compare the results in both experiments done at same conditions.

Figure 11.   Testbench set up at Droevendaal farm.

Collectors were collected after waiting for 5 minutes after the spray test to secure sedimentation of the spray drift in the air after passing the test bench.

2.6   Spray liquid

Spray liquid was tap water with the fluorescent dye Brilliant Sulfo Flavine (BSF) added at the concentration of $1g\ l^{-1}$, and also Agral Gold 0.0075%, an additive to mimic agrochemical tank mix.

Samples of the spray liquid were taken to check the concentration before start the experiments, during the experiments and after the experiments from the spray boom and also a sample directly from the tank.

2.7 Settings

As the target was to know the effect on DPV while spraying by different spray boom heights most of the common heights in field spray treatments were used. Spray tests were carried out by a boom height of 0.3 m and 0.5 m above the test bench.

The spacing between nozzles was 0.25 m for the low boom height and 0.5 m for the high one. It was also built 0.25 m nozzle spacing for the high boom height and 0.5 m for the low one to check if there were significant difference in the cross distribution and the DPV.

The working pressure used at the experiments was the nominal pressure for each nozzle (3 bar for XR, DG, XLTD, and IDN and 1 bar for AIXR and AIRmix) which allowed to spray at the nominal flow rate, known by the manufacturer and checked at the spraying laboratory, to be able to know the application dose as L ha^{-1}.

2.8 Forward speed

Forward speeds selected for these experiments were 2 m s^{-1} and 4 m s^{-1} as they are the most common speeds in field spray treatments in order to know the effect on DPV by different speed. Experiments were done also by 1 m s^{-1} to check if there is some proportional difference.

To know the real track speed we used a laser through software.

At the spraying chamber 2.5 m from the start point was needed to get the right speed, 2 m s^{-1}, and 0.5 m to brake and stop.

At Droevendaal Experimental Farm, for the 2 m s^{-1} speed the track needed 0.5 m to reach the right speed and 0.5 m to brake and stop. For the 4 m s^{-1} speed the distance needed to accelerate was 8 m and 1.5 m to brake and stop.

Figure 12 shows the distance needed for the sprayer to accelerate and brake at both laboratories.

Figure 12. *Distance needed to achieve the intended speed and distance needed to brake at the Spraying Chamber (left) and at Droevendaal Experimental Farm (right).*

2.9 Environmental conditions

The aim of the study was to make the experiments in controlled environmental conditions. According to the ISO 22401, the most representative European weather conditions were chosen such as:

- Temperature: 20°C
- Relative Humidity: 70%
- Liquid Temperature: 20°C

In the spraying chamber was able to manage these settings because it was controlled by the *Regin* software, but in Droevendaal complex an adaptation to the indoor weather conditions had to be done, doing experiments between 20°C and 25°C, and a variable relative humidity depending on the day, from 40% to 65%, but in windstill conditions.

Figure 13. Meteorological station to measure temperature, relative humidity and wind speed.

2.10 Collectors

Collectors used in these experiments were provided by Technofil. Collectors are made by a synthetic material which absorb the liquid and hold it to be easily washed and analysed.

There were two kind of collectors TF-290 and TF-100 which their differences are basically on thickness. Experiments were done to decide which one was better to work with it arriving to the conclusion that any significant difference was found on DPV so we decided to work with the thinner one because the analysis was easier and faster due to the fact that they need less amount of water to be washed.

TF-100 collectors, 200x100 mm sized, were placed in the slots of the test bench to measure the drift from the sprayed deposition.
TF-290 collectors, 500x100 mm sized, were placed along the test bench to catch the total sprayed deposition at the beginning, half, and end of the testbench.

Figure 14. Technofil collectors. Top: TF-100 200x100, Bottom: TF-290 500x100

Fluorimeter
The fluorescence values of the washed collectors and the check samples of the spray liquid were determined with a Perkin Elmer LS 50B fluorimeter at the wave length $\lambda_{excitation} = 450$ nm and $\lambda_{emission} = 500$ nm.

2.11   Analysis of the collectors

After the spray 5 minutes were needed before beginning to collect the collectors to be sure the airborne spray was completely sedimented. Smaller collectors, TF-100, were put in glass pots and the big ones, TF-290, in plastic tons to bring to the laboratory to analyse them.

To do the analysis pots were filled up with 150ml of deionized water and 1L for the tons and shake samples for 15 minutes on a shaking platform. After the shaking procedure a dilution was done to analyse by the fluorimeter which allowed to know the amount of fluorescence liquid obtained in the sample.

The measured fluorescence values were calculated to sprayed deposition (µL/cm²) basing the calculations on the following formulas:

Equation 1.   Equation to calculate the sprayed deposition

$$D_{sample} = \frac{(F_{sample} - F_{demi} - F_{blanco}) * f_{calibration} * V}{C_{tank} * A_{sample}}$$

Where:

D_{sample}	= Deposition (µL/cm²)
F_{sample}	= Fluorescence value of the sample (-)
F_{demi}	= Fluorescence value of the demineralized water (-)
F_{blanco}	= Contribution of the background of the collector (-)
$f_{calibration}$	= Calibration factor
V	= Extract volume (L)
C_{tank}	= Tank concentration (g/L)
A_{sample}	= Sample surface (cm²)

Once the amount of tracer (µL/cm²) on every single collector was measured, the DPV calculation process continued according to the following equation:

Equation 2.   Equation to calculate the DPV

$$DPV = \sum_{i=1}^{n} D_i / RSD \times 100$$

Where:

DPV   = Drift Potential Value (-)
D_i = spray deposit on a single collector (µL/cm²)
RSD = realised spray deposit in the treated area, determined through the measured forward speed and nozzle flow rate (e.g. when applying 100 L/ha, RSD = 1 µL/cm²)

2.12   Statistical Calculations

Statistical differences among DPV were evaluated using an ANOVA test. Several tests were done in order to know the differences of nozzle type, boom height and driving speed.

One-way ANOVA tests were carried out to check the effect of nozzle type and boom height and driving speed for each nozzle.

Two-way ANOVA tests were done to check the effect of boom_height*driving_speed for the same nozzle type.

The statistical software used was GenStat and comparisons were done using Tukey distribution with a confident interval of 5%.

3.   Results

In this section results of the experiments are presented. As experiments were done at different location results are presented according to each situation separating them in three different parts: The Patternator (3.1), TestBench at the spraying chamber (3.2.1) and TestBench at Droevendaal Experimental Farm (3.2.2).

3.1   Patternator's results

Measurements were done with the Patternator in order to know the cross distribution for each nozzle and combination of boom height and nozzle spacing. Results are presented in Table 5 showing the measured amount of liquid (tap water) inside the tests tubes for 1 m and its coefficient of variation, the flow rate calculated for each 2.5 cm (each tube) and for 10 cm (4 tubes) with their coefficient of variation and the coefficient of variation between repetitions.

Table 5.   Measured values from Patternator's cross distribution.

Nozzle	Setting	Amount of liquid x tube (ml)		tube x tube (2.5 cm) Flow Rate (l/m)		4 tubes (10 cm) Flow Rate (l/m)		Repetition CV
		Average	tubes CV	Average	CV	Average	CV	
XR	50x50	148.1	4%	1.52	0.4%	1.52	0.4%	2%
	50x25	155.3	3%	1.52	1.5%	1.52	1.5%	1.9%
	30x50	145.4	7%	1.54	0.8%	1.54	0.8%	1%
	30x25	149.5	6%	1.53	0.6%	1.53	0.6%	2%
DG	50x50	151.7	4%	1.45	0.3%	1.45	0.3%	1%
	50x25	152.1	3%	1.44	0.8%	1.44	0.8%	2.4%
	30x50	140.2	7%	1.45	0.2%	1.45	0.2%	1%
	30x25	141.2	7%	1.45	0.8%	1.45	0.8%	3%
XLTD	50x50	132.3	13%	1.61	0.6%	1.60	0.6%	1%
	50x25	151.6	4%	1.59	0.5%	1.58	0.5%	0.9%
	30x50	134.1	7%	1.58	0.5%	1.59	0.5%	2%
	30x25	147.2	5%	1.58	0.8%	1.58	0.9%	1%
IDN	50x50	148.3	6%	1.15	0.5%	1.15	0.5%	1%
	50x25	152.9	3%	1.16	0.7%	1.16	0.7%	1.3%
	30x50	121.9	24%	1.14	0.4%	1.14	0.4%	1%
	30x25	144.4	5%	1.16	1.4%	1.16	1.4%	1%
AIXR	50x50	132.8	14%	0.94	0.3%	0.95	0.3%	1%
	50x25	149.1	6%	0.92	1.3%	0.92	1.3%	1.8%
	30x50	122.0	24%	0.94	0.2%	0.94	0.2%	2%
	30x25	147.9	9%	0.95	0.3%	0.95	0.3%	3%
AIRmix	50x50	150.5	8%	1.21	0.2%	1.21	0.2%	1%
	50x25	158.7	2%	1.18	0.3%	1.18	0.3%	0.3%
	30x50	121.4	22%	1.23	0.7%	1.22	0.6%	2%
	30x25	159.1	3%	1.20	0.2%	1.20	0.2%	1%

Next figure (Figure 15) shows the cross distribution for all nozzle types and settings for 1 m wider.

Figure 15.   Paternator's Cross distribution for all nozzle types and settings.

To evaluate the measured distributions some steps were followed. The choice was based according to the homogeneity of the distributions, the coefficient of variance (CV) of replicates and the CV of the different measured flow rates and also its efficiency, compared with the flow rate measured in the nozzles selection process.
We assigned threshold values to the CV, to evaluate the measured cross distribution on the Patternator, which are explained below and taken from the Standard ISO 5862 *Equipment for crop protection – Spray Equipment.*

- Homogeneity. Variability of the sample.

    It's affected by the amount of liquid in each tube. Is related to the coefficient of the variance of each sample.

- Excellent: quite flat distribution without relevant jumps on the picture. When CV is less than 2%

Figure 16.   *Distribution with coefficient of variation 2%.*

- Quite Acceptable: regular distribution with similar values and little jumps. When CV is between 2% and 5%

Figure 17.   *Distribution with coefficient of variation 4%*

- Hardly Acceptable: wavy distribution on the picture with big jumps and several hills. When CV is between 5% and 10%

Figure 18.   *Distribution with coefficient of variation 6%*

- Bad: irregular distribution with a lot of different values and several hills on the picture. When CV is more than 10%

Figure 19.   Distribution with coefficient of variation 13%

Table 6 shows the classification done about the cross distribution on the Patternator for all nozzles and settings following the statements said previously.

Table 6.   Paternattor's cross distribution classification.

Nozzle type	Height	Space	Homogeneity	CV	Efficiency
XR	30 cm	25 cm	BAD	Q. ACCEPTABLE	EXCELLENT
	30 cm	50 cm	BAD	Q. ACCEPTABLE	EXCELLENT
	50 cm	25 cm	EXCELLENT	Q. ACCEPTABLE	EXCELLENT
	50 cm	50 cm	Q.ACCEPTABLE	Q. ACCEPTABLE	EXCELLENT
DG	30 cm	25 cm	H. ACCEPTABLE	Q. ACCEPTABLE	ACCEPTABLE
	30 cm	50 cm	BAD	Q. ACCEPTABLE	ACCEPTABLE
	50 cm	25 cm	EXCELLENT	Q. ACCEPTABLE	ACCEPTABLE
	50 cm	50 cm	H. ACCEPTABLE	Q. ACCEPTABLE	ACCEPTABLE
XLTD	30 cm	25 cm	H. ACCEPTABLE	Q. ACCEPTABLE	EXCELLENT
	30 cm	50 cm	BAD	Q. ACCEPTABLE	EXCELLENT
	50 cm	25 cm	Q. ACCEPTABLE	Q. ACCEPTABLE	EXCELLENT
	50 cm	50 cm	BAD	Q. ACCEPTABLE	EXCELLENT
IDN	30 cm	25 cm	Q. ACCEPTABLE	Q. ACCEPTABLE	EXCELLENT
	30 cm	50 cm	BAD	Q. ACCEPTABLE	EXCELLENT
	50 cm	25 cm	EXCELLENT	Q. ACCEPTABLE	EXCELLENT
	50 cm	50 cm	H. ACCEPTABLE	EXCELLENT	EXCELLENT
AIXR	30 cm	25 cm	BAD	H. ACCEPTABLE	EXCELLENT
	30 cm	50 cm	BAD	Q. ACCEPTABLE	EXCELLENT
	50 cm	25 cm	H. ACCEPTABLE	Q. ACCEPTABLE	EXCELLENT
	50 cm	50 cm	BAD	Q. ACCEPTABLE	EXCELLENT
AIRmix	30 cm	25 cm	Q. ACCEPTABLE	Q. ACCEPTABLE	EXCELLENT
	30 cm	50 cm	BAD	Q. ACCEPTABLE	EXCELLENT
	50 cm	25 cm	EXCELLENT	Q. ACCEPTABLE	EXCELLENT
	50 cm	50 cm	H. ACCEPTABLE	EXCELLENT	EXCELLENT

Some of the measured combinations in Table 5 can be classified in a non-advisable class of inhomogeneity not to be used in practice. However they were measured for the set-up of the tests and to evaluate whether bad cross distribution do effect test bench drift potential or not.

3.2   Test bench results

When experiments were done and the collectors analysed the relevant calculations were performed to transform the fluorescents measures into spray deposition (µL/cm²). Results of the Test bench are presented as DPV and comparisons were done between combinations of different settings. These results contain the values of DPV and ANOVA tests for different treatment. The results from the different laboratory locations Spray Chamber and Droevendaal Experimental Farm are separated.

3.2.1   Spray Chamber

At the spray chamber experiments were done at 2 m s^{-1} speed, two different boom heights, 30 cm and 50 cm, and two nozzles spacing for both boom heights, 25 cm and 50 cm.
Results obtained demonstrate that DPVs were lower in the beginning of the testbench than in the end giving an exponential distribution.
Results are presented as percentage of spray deposition along the whole testbench and as DPV for all nozzle types and settings. Figures 20 and 21 show the measured spray deposition values and DPV for the 50x50 and 30x25 settings at 2 m s^{-1}.

Figure 20.   *Logarithm of % spray deposit profiles along the testbench for 50x50 (top) and 30x25 (bottom) settings at 2 m s^{-1} speed.*

Figure 21. DPVs with the mean ± SE of the mean (DPV) of the spray deposit on the collectors for 50x50 (left) and 30x25 (right) settings at 2 m s^1 speed.

An ANOVA test was carried out taking nozzle type, boom height and nozzle spacing as factors at 95% confident level. Also a Tukey classification was done (α=0.05). Table 7 shows a summary of the DPV for each treatment and the classification got after the ANOVA test between nozzle types, boom heights and nozzle spacing.

Table 7.   DPV for each nozzle and setting (boom height x nozzle spacing), coefficient of variation between repetitions and Tukey classification (α = 5%).

	50x50			50x25			30x50			30x25		
Nozzle	DPV	CV	Tukey	DPV	CV	Tukey	DPV	CV	Tukey	DPV	CV	Tukey
XR	21.96	16%	J	13.68	12%	IJ	8.26	12%	GHI	6.53	4%	GH
DG	11.07	10%	HI	12.40	11%	IJ	5.38	12%	GHI	5.34	12%	GH
XLTD	2.70	14%	EF	3.05	13%	F	0.94	16%	CD	1.78	6%	EF
IDN	1.74	11%	EF	2.13	31%	EF	0.50	44%	AB	0.94	15%	CD
AIXR	2.32	15%	EF	2.18	4%	EF	0.47	14%	AB	0.81	45%	BC
AIRmix	2.23	15%	EF	1.59	18%	DE	0.45	46%	A	0.85	45%	BC

*different letters mean significant differences between means

The highest DPV obtained from all experiments was 22, for the nozzle type XR in combination with the 50 cm boom height and 50 cm nozzle spacing (the standard setting). Following the XR was the DG with a DPV about 11 which it was significant different. Following the DG there was a large group with the rest of nozzles that differ from the XR and DG but they were not significant different between each other. In general the decreasing DPV order was the following: XR, DG, XLTD, AIXR, IDN and AIRmix.
There was a clear significant effect of boom height for all the nozzles and the largest DPV could be found at 50 cm boom height and 50 cm nozzle spacing. Otherwise at 50 cm boom height there were not significant differences between XLTD – IDN – AIXR – AIRmix. For the 30 cm boom height we can see three significant different groups: XR - DG, XLTD and IDN - AIXR – AIRmix.
Otherwise for the nozzle spacing any significant difference could be found for the 50 cm boom height. At 30 cm boom height there was significant effect of nozzle spacing with types XLTD, IDN, AIXR and AIRmix, with higher DPV for the 25 cm nozzle spacing. There was no significant difference between XR and DG for the 25 cm spacing at both boom heights, being values of DG a bit lower than XR.
On the other hand, ANOVA tests were done individually for each nozzle and was found that there was a significant effect on nozzle spacing for XR at 50 cm boom height.

Coefficients of variation between repetitions ranged from 4% to 46%. The highest values of CV occurred with the IDN, AIXR and AIRmix nozzles having lowest values of DPV. This suggests that either the precision of the measurements is to be increased or the number of repetitions (now 5)

Comparisons were also done on DPV between XR and Drift Reducing nozzles for each setting in order to check the potential reduction on DPV, showed at Table 8.

Table 8.   Reduction on DPV for Drift Reducing nozzles compared to a standard nozzle (XR) with different settings (spray boom height x nozzle spacing).

		DG	XLTD	IDN	AIXR	AIRmix
Drift Reduction Class		50%	90%	75%	90%	95%
Settings	50x50	50%	88%	92%	89%	90%
	30x50	35%	89%	94%	94%	95%
	50x25	9%	78%	84%	84%	88%
	30x25	18%	73%	86%	88%	87%

Results show that there was a significant effect on DPV when using drift reducing nozzles. In general at 50 cm nozzle spacing reduction values obtained were according to the specified drift reduction classes, however for 25 cm nozzle spacing reduction values obtained were lower according to drift reduction classes. On the other hand for IDN nozzle reduction values obtained on DPV were around 90% while it is classified just as 75% of drift reduction.

3.2.2   Droevendaal Experimental Farm

At Droevendaal Experimental Farm experiments were performed at two different speeds, 2 m s^{-1} and 4 m s^{-1}. Experiments were done with two different boom heights, 50 cm and 30 cm above the testbench and with 50 cm nozzle spacing for the 50 cm boom height and 25 cm nozzle spacing for the 30 cm boom height for both speeds. Results are showed for both settings at different speeds in order to see the speed effect.
Measured spray deposition was higher at the end of the testbench than in the beginning following an exponential distribution.
Next figures (22, 23, 24 and 25) show the measured spray deposition values and DPV for both settings at the different speeds.

Figure 22. *Logarithm of % spray deposit profiles along the testbench for 50x50 settings at 4 m s^1 (top) and 2 m s^1 (bottom).*

Figure 23. *DPVs with the mean ± SE of the mean (DPV) of the spray deposit on the collectors for 50x50 settings at 4 m s^1 (left) and 2 m s^1 (right).*

Figure 24.   Logarithm of % spray deposit profiles along the testbench and for 30x25 settings at 2 m s[1] (top) and 4 m s[1] (bottom).

Figure 25.   DPVs with the mean ± SE of the mean (DPV) of the spray deposit on the collectors for 30x25 settings at 4 m s[1] (left) and 2 m s[1] (right).

An ANOVA test was carried out taking nozzle type, forward speed and settings (50x50, 30x25) as factors at 95% confident level. Also a Tukey classification was done (α=0.05). Table 9 shows a summary of the DPV for each treatment and the classification got after the ANOVA test between nozzle types, forward speed and settings.

Table 9. *DPV for each nozzle and setting, coefficient of variation between repetitions and Tukey classification (α = 5%)*

| Nozzle | 4 m/s | | | | | | 2m/s | | | | | |
| | 50x50 | | | 30x25 | | | 50x50 | | | 30x25 | | |
	DPV	CV	Tukey	DPV	CV	Tukey	DPV	CV	Tukey	DPV	CV	Tukey
XR	56.54	13%	I	10.67	9%	GH	17.27	13%	H	1.48	18%	DE
DG	32.77	7%	I	6.14	8%	FG	14.26	20%	H	1.51	18%	DE
XLTD	6.27	7%	FG	1.42	8%	DE	1.75	26%	E	0.45	10%	AB
IDN	5.26	8%	F	1.10	4%	CDE	1.31	16%	DE	0.45	33%	AB
AIXR	6.58	9%	FG	0.95	36%	CD	1.76	10%	E	0.47	39%	AB
AIRmix	6.05	7%	FG	0.65	19%	BC	1.56	27%	DE	0.36	39%	A

*different letters mean significant differences between means.

Highest DPV was for the nozzle type XR in combination with 50 cm boom height and nozzle spacing at 4 m s^{-1} with the value of 56. Following the XR was the DG with a DPV of 33 for the same settings, however there were no significant differences between these nozzle types at all settings. Rest of the nozzles were significant different from XR and DG in all the situations but not from each other, just XLTD was significant different from AIRmix in 30x25 at 4 m s^{-1}.

Results show that the decreasing DPV order was XR – DG – AIXR – XLTD – AIRmix – IDN for the 50x50 settings for both speeds (4 m s^{-1} and 2 m s^{-1}) and for the 30x25 settings: XR – DG – XLTD – IDN – AIXR – AIRmix at 4 m s^{-1} and XR – DG – AIXR – XLTD – IDN - AIRmix at 2 m s^{-1}.

Regarding to forward speed there was a clear effect on DPV. There were significant differences between all nozzles at both settings getting highest DPVs at 4 m s^{-1}. In general the DPV at 4 m s^{-1} speed was more than threefold higher than at 2 m s^{-1} forward speed. The decreasing DPV order was the same for both speeds (4 m s^{-1} and 2 m s^{-1}).

About the different settings there were also significant differences on DPV for all the nozzles, getting highest DPVs at 50 cm boom height and 50 cm nozzle spacing. Effects of speed and nozzle settings on DPV were high for 4 m s^{-1} speed where the DPV was in general fivefold higher for the 50x50 than the 30x25 nozzle setting whereas it was even ten times higher for the 50x50 than the 30x25 nozzle setting at 2 m s^{-1}.

For the nozzle types XR, XLTD and IDN there were not significant differences when the forward speed was raised (2 m s^{-1} to 4 m s^{-1}), low the boom height (50 cm to 30 cm) and reduce the nozzle spacing (50 cm to 25 cm) in order to apply the same spray volume. In general the DPV of the 30x25 at 4 m s^{-1} was always lower than the DPV of 50x50 at 2 m s^{-1}. So despite the higher forward speed DPV remained in the same order when lowering boom height and double the number of nozzles.

Otherwise ANOVA tests were done individually for each nozzle and there were significant differences between XR and DG at 4 m s^{-1} but not at 2 m s^{-1}. Coefficients of variation between repetitions ranged from 4% to 39%.

Comparisons were also done on DPV between XR and Drift Reducing nozzles for each setting in order to check the potential reduction on DPV, showed at Table 10.

Table 10. *Reduction on DPV for Drift Reducing nozzles compared to a standard nozzle (XR).with different speeds and settings (spray boom height x nozzle spacing).*

		DG	XLTD	IDN	AIXR	AIRmix
Drift Reduction Class		50%	90%	75%	90%	95%
4 m/s	50x50	42%	89%	91%	88%	89%
	30x25	42%	87%	90%	91%	94%
2 m/s	50x50	17%	90%	92%	90%	91%
	30x25	-2%	69%	70%	69%	76%

Results show that there was a significant effect on DPV when using drift reducing nozzles. At 4 m s^{-1} reduction values were according to specified drift reduction classes being DG and AIRmix values a bit lower than its class and higher values for IDN. At 2 m s^{-1} the expected results were found at 50 cm boom height and nozzle spacing for the nozzle types XLTD and AIXR only whereas the results of the DG and AIRmix were lower and of the IDN higher. However at 2 m s^{-1} and 30 cm boom height and 25 cm nozzle spacing the reduction values on DPV were lower according to drift reduction class. For the 50% drift reduction class (DG) the percentage of reduction on DPV was just 17% at 50x50 but for the 30x25 settings the DPV obtained was a bit higher than the XR at 2 m s^{-1} and 30x25.

4.   Discussion

Effect of nozzle type

The decreasing order obtained of DPV at 2 m s^{-1}, at the boom height 50 cm and 50 cm nozzle spacing was XR – DG – XLTD – AIXR – AIRmix – IDN for the Spraying Chamber and XR – DG – XLTD/AIXR – AIRmix – IDN for experiments done at Droevendaal Experimental Farm. Based on the statistics there was a difference between XR, DG and the group of XLTD – AIXR – AIRmix – IDN. The coefficient of variation ranged between 4% and 45% which was surprisingly high although doing measurements indoor considering that Gil et al. (2013) found CV between 8 and 30, and Balsari et al. (2007) found CV values between 7% and 24% when doing spray testbench measurements outdoor. Nevertheless, based on the results previously described, we can say that it is clearly demonstrated the capacity to reduce drift risk when using low drift nozzles, however we could not find significant differences between the reduction classes 75% and 95%. There was a similitude in tendency between both laboratories which could be compared with that obtained by Zande et al. (2014), where results by same settings (2 m s^{-1}, 50x50) followed the same tendency on reduction values of DPV.

Effect of nozzle spacing

Regarding to the nozzle spacing, at 50 cm boom height, DPVs obtained were higher than at 25 cm nozzle spacing for the nozzle types DG – XLTD – IDN. At 30 cm boom height the nozzle types XLTD – IDN – AIXR - AIRmix had higher DPV values at 25 cm nozzle spacing than at 50 cm nozzle spacing. Especially at 25 cm nozzle spacing for the 2 m s^{-1} the reduction percentage on DPV did not accomplish with the reduction class for each nozzle type, being lower values of drift reduction than the expected on drift reduction list. It looks as if the differences in structure of the spray fans on the spray boom and the moving around of the air around the spray fan at 25 and 50 cm nozzle spacing does effect spray drift potential.

Effect of boom height

When reducing boom height form 50 cm to 30 cm at 2 m s^{-1} forward speed for the 50 cm nozzle spacing in general DPV was between 50% and 75% lower and for the 25 cm nozzle spacing is around 50% to 60% lower. De Jong et al. (2000) found spray drift reduction in field experiments of 55% when reducing spray boom height from 50 cm to 30 cm using an XR 110.04 nozzle at 3 bar at 6 km h^{-1} and 50 cm nozzle spacing. In general the DPV of the 30x25 at 4 m/s was always lower than the DPV of 50x50 at 2 m/s. That shows the importance of boom height relative to forward speed.

Effect of forward speed

When the forward speed was increased from 2 m s^{-1} to 4 m s^{-1} DPVs were about four times higher at 50 cm boom height and 50 cm nozzle spacing. At 30 cm boom height and 25 cm nozzle spacing, increasing speed form 2 to 4 m s^{-1} DPVs increased by two to six times. At 50x50 the decreasing DPV order was the same for both speeds, being: XR – DG – XLTD - AIXR – AIRmix – IDN, but not for the 30x25 set up. The tendency of DPV found was therefore the same for different speeds. At 2 m s^{-1} speed the tendency was the same for both laboratories but it changed drastically when raising the speed up to 4 m s^{-1} getting DPVs more than threefold higher at the fastest speed. Therefore there was a clear effect on DPV regarding to the driving speed which can be compared with the results got in field experiments done before, van de Zande et al., who found an increase in spray drift deposition on surface water area on 50% for the XR 110.04 nozzle and 5 times higher for the DG 110.04 nozzle when increasing sprayer speed from 6 to 12 km h^{-1}.

Effect of forward speed, boom height and nozzle spacing.

At 2 m s^{-1} forward speed the DPV of the 30 cm boom height and 25 cm nozzle spacing was 75% until 90% lower than for 50 cm boom height and 50 cm nozzle spacing. Stallinga et al. (2004) found spray drift reduction at surface water distance of 56% until 94% because of the reduction on boom height (50 to 30 cm height), nozzle spacing (50 and 25 cm) and nozzle type (DG 80.015 and ID 90.015 compared to the XR 110.04). At 4 m s^{-1} DPV for the 30 cm boom height and 25 cm nozzle spacing was 80% to 90% lower than for the 50 cm boom height and nozzle spacing.

Figure 26.   Comparison of DPV for boom height, nozzle spacing and forward speed.

We noted that the effect of boom height and forward speed was not the same for all nozzles, however using these results we can say that DPVs were higher when driving speed was higher and also higher when the spray boom height was higher. The ratio for the 30x25 and 50x50 boom height and nozzle spacing combinations ranged between 0.5 (DG) and 0.35 (AIXR) at the Spraying Chamber and between 0.08 (XR) and 0.35 (IDN) at Droevendaal Experimental Farm. Therefore boom height effect was not the same for both laboratories in terms of DPV reduction, being the effect of boom height more exaggerated at the experiments done at Droevendaal Experimental Farm than the ones done at the Spraying Chamber.

Differences between laboratories

In general the values of DPV for the same nozzle type, forward speed, boom height and nozzle spacing were 30% to 50% higher at the Spraying Chamber for the 50x50 combination. For the 30x25 combination the DPVs values measured in the Spraying Chamber were two to four times higher than in Droevendaal.

Differences in results for both laboratories might be explained by the variability of the relative humidity which was not constant for all the experiments in Droevendaal farm and always lower than in the sprayer chamber (70%). Similar temperature and relative humidity effects on spray deposition on the testbench were found also by Balsari et al. (2007). Assuming that the number of nozzles for the 30x25 combination at Droevendaal which was 7 instead of the 9 used at the Spraying Chamber could not be the reason of these differences. The DPV drift reduction classification for the spraying chamber and Droevendaal were similar for the 50x50 and different for the 30x25 boom height and nozzle spacing combinations.

The higher values of DPV at Droevendaal compared to those in the Spray Chamber for similar settings and speeds suggested that the starting length distance could have affected the measurements. As at the 8 m point spray drift deposition was still 1% of applied spray volume for the XR nozzle the test bench should have been longer to at least 'catch' more than 95% of the spray drift plume behind the moving spray boom. This is especially relevant at the higher speed. Spray drift reduction results may therefore be underestimated.

Figure 27. Comparison of DPV measured in both laboratories.

Use of the testbench

We can conclude that the testbench is useful tool to evaluate the effect of nozzle types, spray boom height, nozzle spacing and forward speed on spray drift potential. However comparisons are always to be made under similar conditions and with the same set up of the testbench. Although the ISO Standard specifies minimum of three repetitions with the five repetitions we measured we could not fine significant differences between drift reducing nozzle types of the classes 75%, 90% and 95%. The reason for this was the high coefficient of variations in DPVs. Therefore to avoid this large variation number of repetitions should be increased.

# 5.	Conclusion

The drift testbench can be used to show with determined Drift Potential Value (DPV) the effect of: nozzle types, boom height, nozzle spacing and forward speed, but only on a relative basis because of differences in absolute value of DPV in different test locations.

There is a clear effect on DPV regarding to the nozzle type, however the ranking of the nozzles was not the same for both laboratories used for the low drift nozzles but significant differences were not found. So more repetitions would be needed to make these differences statistical significant. Therefore no significant differences were found in drift reducing nozzle types of the classes 75%, 90% and 95% because of high values of Coeficient of Variation (CV) between measurements. In order to reduce the CV more repetitions are needed or the testbench methodology should be improved.

About the forward speed we can conclude that DPVs were higher with higher driving speeds while spraying. Same observations were done for the spray boom height. DPVs were higher when the spray boom height was higher. When increasing the speed from 2 m s^{-1} to 4 m s^{-1} same DPVs can be obtained for the same nozzle types decreasing the spray boom height from 50 to 30 cm and reducing the nozzle spacing from 50 to 25 cm. Weather conditions are quite relevant in the results and have to be as similar as possible for all experiments as they may affect the height of DPV and not so much the ranking of the objects.

6.   Summary

In last years the use of plant protection product (PPP) has become very relevant regarding to the environmental impact induced by the spray drift, which is a risk for human health and the environment and causes economic losses. Therefore in the period mid-February till end of July of 2014 indoor spray drift experiments were done at the Spray Laboratory Technology of Wageningen UR in order to determine the effect of nozzle types, spray boom height (30 cm and 50 cm), nozzle spacing (25 cm and 50 cm) and forward speed (2 m s^{-1} and 4 m s^{-1}) on Drift Potential Value (DPV) spraying above a spray drift testbench in controlled environmental conditions and a windless situation. This test bench is the basis for the development of an international standard (ISO22401) on how to perform the measurements and if the results from the measurements produce similar results as the spray drift field measurements (following e.g. ISO22688). The sprayed liquid was tap water with a fluorescent dye (BSF) at the concentration of 1g l^{-1}. Results are presented for spray drift deposition collected in the collectors previously placed at the testbench. From the many experiments done using the same methodology and based on earlier studies we concluded that the spray drift testbench can be used to show the effect on DPV of: nozzle types, boom height, nozzle spacing and forward speed. Effects can however only be shown on a relative basis because of differences in absolute value of DPV at different test locations. Based on the results there is a clear effect on DPV regarding to the nozzle type, however the ranking of the nozzles was not the same for both laboratories for the low drift nozzles but we significant differences were not found so more repetitions would be needed to make these differences statistical significant. Therefore no significant differences in drift reducing nozzle types of the drift reduction classes 75%, 90% and 95% could be made because of high coefficients of variation (CV) between measurements. In order to reduce the CV more repetitions are needed or the testbench methodology should be improved. In terms of forward speed we can conclude that DPVs were higher as the driving speed while spraying was higher. Similar observations were done for the spray boom height, where DPVs were higher when the spray boom height was high. Results proved that when forward speed was increased from 2 m s^{-1} to 4 m s^{-1}, DPVs determined for the same nozzle types were similar when decreasing the spray boom height from 50 to 30 cm and reducing the nozzle spacing from 50 to 25 cm. Weather conditions are quite relevant in the results and have to be as similar as possible for all experiments as they may affect the height of DPV and not so much the ranking of the objects.

7.   References

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44

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Appendix I. Technical Testbench Plans

Spuithal Set up

Droevendaal Experimental Farm Set up

Appendix II. Patternator's results

Wide: 1m			XR 110.04									Replicas
		Boom Pressure (bar)	amount tube x tube (2,5cm)					amount by 4 tubes (10cm)				CV
Treatment			Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)		
Height	Space		Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency	
30 cm	25 cm	2,95	149,5	5,80%	1,531	0,62%	97,7%	149,6	4,68%	1,532	0,61%	97,7%	1,6%

XR 1m H:30cm S:25cm tube by tube

XR 1m H:30cm S:25cm 4 tubes

5# Picture

Observations:

We can see that the distribution is not quite flat. Highest levels are situated underneath the position of the nozzles while the lowest values we can find are in the space between the nozzles.
Average flow rate is 1,53 l/min and the coefficient of variance between each tube is 5,8%. The coefficient of variation between different measurements is 1,6%.

Wide: 1m			XR 110.04									
		Boom Pressure (bar)	amount tube x tube (2,5cm)					amount by 4 tubes (10cm)				Replicas CV
Treatment			Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)		
Height	Space		Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency	
30 cm	50 cm	2,95	145,4	7,09%	1,536	0,83%	97,0%	145,4	5,59%	1,536	0,83%	97,0%	1,3%

XR 1m H:30cm S:50cm tube by tube

XR 1m H:30cm S:50cm 4 tubes

1# Picture

Observations:

This distribution is many irregular and it could mean that there aren't enough spraying nozzles with this height.

Average flow rate is 1,54 l/min and the coefficient of variation between each tube is 7,1%. The coefficient of variation between different measurements is 1,3%

			XR 110.04								
Wide: 1m				amount tube x tube (2,5cm)				amount by 4 tubes (10cm)			Replicas CV
Treatment		Boom Pressure (bar)	Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)	
Height	Space		Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency	
50 cm	25 cm	2,9	155,3	2,8%	1,517	1,53%	96,8%	155,3	2,18 %	1,517	1,54%	96,8%	1,9%

XR 1m H:50 S:25 tube by tube

XR 1m H:50cm S:25cm 4 tubes

#5 Picture

Observations:
In this test we can see that the distribution is almost flat, so it can be a good distribution, instead of this test has got the highest flow's rate coefficient of variance of the repetitions.
Average flow rate is 1,52 l/min and the coefficient of variance between each tube is 2,8%. The coefficient of variation between different measurements is 1,9%

Wide: 1m		XR 110.04										
		Boom Pressure (bar)	amount tube x tube (2,5cm)					amount by 4 tubes (10cm)				Replicas CV
Treatment			Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)		
Height	Space		Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency	
50 cm	50 cm	2,9	148,1	3,91%	1,522	0,42%	96,1%	148,3	3,08%	1,523	0,42%	96,2%	2,1%

XR 1m H:50cm S:50cm tube by tube

XR 1m H:50cm S:50cm 4 tubes

#4 Picture

Observations:

This distribution is also quite flat, with a highest value in the half right side in all the repetitions, which are very homogenous.
Average flow rate is 1,52 l/min and the coefficient of variance between each tube is 3,9%. The coefficient of variation between different measurements is 2,1%

Wide: 1m		DG 110.04									
	Boom Pressure (bar)	amount tube x tube (2,5cm)					amount by 4 tubes (10cm)				Replicas CV
Treatment		Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)		
Height Space		Average tubes CV		Average	CV	Efficiency	Average tubes CV		Average	CV	Efficiency
30 cm 25 cm	3	141,2 6,66%		1,451	0,81%	91,4%	141,3 5,80%		1,452	0,83%	91,4%	2,6%

DG 1m H:30cm S:25cm tube by tube

DG 1m H:30cm S:25cm 4 tubes

#5 Picture

Observations:
This distribution is quite flat in the middle side, however it has too highest values close to each edges.
Average flow rate is 1,45 l/min and the coefficient of variation between each tube is 6,6%. The coefficient of variation between different measurements is 2,6%

Wide: 1m		DG 110.04									
Treatment		Boom Pressure (bar)	amount tube x tube (2,5cm)					amount by 4 tubes (10cm)				Replicas CV
			Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)		
Height	Space		Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency	
30 cm	50 cm	3	140,2	7,37%	1,452	0,19%	91,5%	140,3	5,65%	1,454	0,15%	91,5%	0,9%

DG 1m H:30cm S:50cm tube by tube

DG 1m H:30cm S:50cm 4 tubes

#3 Picture

Observations:

This distribution is many irregular and is not good at all. We can see the high level is in the same tube as in the previous test. Instead of this heterogeneity we watch that the middle side is almost flat with the same level.

Average flow rate is 1,45 l/min and the coefficient of variation between each tube is 7,4%. The coefficient of variation between different measurements is 1,0%

Wide: 1m		DG 110.04									
	Boom Pressure (bar)	amount tube x tube (2,5cm)					amount by 4 tubes (10cm)				Replicas CV
Treatment		Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)		
Height	Space		Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency	
50 cm	25 cm	2,95	152,1	3,46%	1,444	0,80%	90,9%	152,1	3,43%	1,444	0,80%	91,0%	2,4%

DG 1m H:50cm S:25cm tube by tube

DG 1m H:50cm S:25cm 4 tubes

#3 Picture

Observations:

This distribution is quite homogeneous and it looks almost flat. The highest value we can find is also in the same tube as in the other previous tests.

Average flow rate is 1,44 l/min and the coefficient of variation between each tube is 3,5%. The coefficient of variation between different measurements is 2,4%

Wide: 1m		DG 110.04									
	Boom Pressure (bar)	amount tube x tube (2,5cm)					amount by 4 tubes (10cm)				Replicas CV
Treatment		Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)		
Height	Space	Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency	
50 cm	50 cm	2,95	151,7	3,87%	1,454	0,25%	91,5%	151,7	3,28%	1,454	0,26%	91,6%	0,7%

DG 1m H:50cm S:50cm tube by tube

DG 1m H:50cm S:50cm 4 tubes

#4 Picture

Observations:
This distribution is many homogeneous but tubes level are not quite different and it looks little flat. It is close to our target.
Average flow rate is 1,45 l/min and the coefficient of variation between each tube is 3,9%. The coefficient of variation between different measurements is 0,7%

Wide: 1m		IDN 120.03										Replicas CV
	Boom Pressure (bar)	amount tube x tube (2,5cm)					amount by 4 tubes (10cm)					
Treatment		Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)			
Height	Space		Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency
30 cm	25 cm	3,1	144,4	4,89%	1,155	1,43%	99,3%	144,5	3,45%	1,156	1,45%	99,4%	0,8%

IDN 1m H:30cm S:25cm tube by tube

IDN 1m H:30cm S:25cm 4 tubes

#1 Picture

Observations:

This distribution is almost flat but is not quite regular and we can watch that the lowest value is in the middle of the Patternator.
Average flow rate is 1,16 l/min and the coefficient of variance between each tube is 4,9%. The coefficient of variation between different measurements is 0,8%

Wide: 1m		IDN 120.03									
	Boom Pressure (bar)	amount tube x tube (2,5cm)					amount by 4 tubes (10cm)				Replicas CV
Treatment		Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)		
Height Space		Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency	
30 cm 50 cm	3,05	121,9	23,51%	1,144	0,43%	98,8%	121,1	22,15%	1,137	0,44%	98,2%	0,8%

IDN 1m H:30cm S:50cm tube by tube

IDN 1m H:30cm S:50cm 4 tubes

#1 Picture

Observations:
In this distribution we can watch many climbs with the highest values situated underneath spraying nozzles and the lowest between them. There is a huge difference. This distribution could be used in special spraying techniques.
Average flow rate is 1,14 l/min and the coefficient of variance between each tube is 23,5%. The coefficient of variation between different measurements is 0,8%

Wide: 1m		Boom Pressure (bar)	IDN 120.03								Replicas CV
			amount tube x tube (2,5cm)				amount by 4 tubes (10cm)				
Treatment			Amount of liquid x tube (ml)		Flow Rate (l/m)		Amount of liquid x tube (ml)		Flow Rate (l/m)		
Height	Space		Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency	
50 cm	25 cm	3,1	152,9	2,66%	1,156	0,65%	99,4%	153,0	2,16%	1,157	0,66%	99,4%	1,3%

IDN 1m H:50cm S:25cm tube by tube

IDN 1m H:50cm S:25cm 4 tubes

#2 Picture

Observations:

We can see that this distribution is quite flat and also homogeneous. There are some differences but they are almost insignificantly. Average flow rate is 1,16 l/min and the coefficient of variance between each tube is 2,7%. The coefficient of variation between different measurements is 1,3%

Wide: 1m		Boom Pressure (bar)	IDN 120.03									Replicas CV
			amount tube x tube (2,5cm)					amount by 4 tubes (10cm)				
			Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)		
Treatment												
Height	Space		Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency
50 cm	50 cm	3,05	148,3	6,48%	1,150	0,49%	99,3%	148,5	5,79%	1,151	0,49%	99,4%	0,5%

IDN 1m H:50cm S:50cm tube by tube

IDN 1m H:50cm S:50cm 4 tubes

#3 Picture

Observations:
This distribution is quite flat but is a bit heterogeneous with some differences and many irregular. However differences are not many big.
Average flow rate is 1,15 l/min and the coefficient of variance between each tube is 6,5%. The coefficient of variation between different measurements is 0,5%

Wide: 1m		XLTD 110.04										
	Boom Pressure (bar)	amount tube x tube (2,5cm)					amount by 4 tubes (10cm)					Replicas CV
Treatment		Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)			
Height Space		Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency	
30 cm 25 cm	2,9	147,2	4,81%	1,577	0,84%	97,1%	147,4	3,26%	1,579	0,85%	97,3%	0,9%

XLTD 1m H:30cm S:25cm tube by tube

XLTD 1m H:30cm S:25cm 4 tubes

#4 Picture

Observations:

This distribution seems quite flat but it has many inflection points as we can see. These points make it a bit irregular.

Average flow rate is 1,58 l/min and the coefficient of variance between each tube is 4,8%. The coefficient of variation between different measurements is 0,9%

Wide: 1m		XLTD 110.04										
	Boom Pressure (bar)	amount tube x tube (2,5cm)					amount by 4 tubes (10cm)					Replicas CV
Treatment		Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)			
Height Space		Average tubes CV		Average	CV	Efficiency	Average tubes CV		Average	CV	Efficiency	
30 cm 50 cm	2,95	134,1 6,65%		1,581	0,49%	96,3%	134,6 4,77%		1,587	0,49%	96,6%	1,7%

XLTD 1m H:30cm S:50cm tube by tube

XLTD 1m H:30cm S:50cm 4 tubes

#3 Picture

Observations:

This distribution is quite irregular and heterogeneous. There are many significant differences on the left side.

Average flow rate is 1,58 l/min and the coefficient of variance between each tube is 6,7%. The coefficient of variation between different measurements is 1,7%

			XLTD 110.04								
Wide: 1m			amount tube x tube (2,5cm)				amount by 4 tubes (10cm)				Replicas CV
Treatment		Boom Pressure (bar)	Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)	
Height	Space		Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency
50 cm	25 cm	2,9	151,6	4,22%	1,585	0,48%	97,6%	151,5	3,80%	1,584	0,49%	97,5%	0,9%

#2 Picture

Observations:

We can see that this distribution is almost flat instead of it has many differences, but they are not so big.

Average flow rate is 1,58 l/min and the coefficient of variance between each tube is 4,2%. The coefficient of variation between different measurements is 0,9%

Wide: 1m		Boom Pressure (bar)	XLTD 110.04										Replicas CV
			amount tube x tube (2,5cm)					amount by 4 tubes (10cm)					
			Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)			
Treatment													
Height	Space		Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency	
50 cm	50 cm	2,95	132,3	13,03%	1,607	0,60%	97,9%	131,8	12,30%	1,601	0,62%	97,5%	1,4%

#2 Picture

Observations:
This distribution is quite irregular and heterogeneous. Different areas can be clearly differentiated, drawing a big wave.
Average flow rate is 1,61 l/min and the coefficient of variance between each tube is 13%. The coefficient of variation between different measurements is 1,4%

Wide: 1m		AIXR 110.04									
	Boom Pressure (bar)	amount tube x tube (2,5cm)					amount by 4 tubes (10cm)				Replicas CV
Treatment		Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)		
Height	Space		Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency	
30 cm	25 cm	1	147,9	8,53%	0,947	0,32%	99,5%	148,1	6,29%	0,948	0,34%	99,6%	3,3%

AIXR 1m H:30cm S:25cm tube by tube

AIXR 1m H:30cm S:25cm 4 tubes

#3 Picture

Observations:

This distribution is quite irregular and very heterogeneous. We can see something that doesn't allow sprayed water arrive to the conductors placed on the lowest values. This problem is in all repetitions.

Average flow rate is 0,95 l/min and the coefficient of variance between each tube is 8,5%. The coefficient of variation between different measurements is 3,3%

Wide: 1m		AIXR 110.04									
	Boom Pressure (bar)	amount tube x tube (2,5cm)					amount by 4 tubes (10cm)				Replicas CV
Treatment		Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)		
Height Space		Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency	
30 cm 50 cm	1	122,0	23,66%	0,943	0,23%	100,1%	121,3	22,59%	0,937	0,24%	99,5%	1,9%

AIXR 1m H:30cm S:50cm tube by tube

AIXR 1m H:30cm S:50cm 4 tubes

#3 Picture

Observations:

This distribution is too many irregular and it has big climbs. The lowest value is because the sprayed water didn't arrive to the conductor. It could be that the spraying angle in this nozzle is not the properly.

Average flow rate is 0,94 l/min and the coefficient of variance between each tube is 23%. The coefficient of variation between different measurements is 1,9%

Wide: 1m			AIXR 110.04									
		Boom Pressure (bar)	amount tube x tube (2,5cm)					amount by 4 tubes (10cm)				Replicas CV
Treatment			Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)		
Height	Space		Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency	
50 cm	25 cm	1	149,1	5,65%	0,917	1,31%	96,3%	149,3	4,63%	0,918	1,31%	96,4%	1,8%

AIXR 1m H:50cm S:25cm tube by tube

AIXR 1m H:50cm S:25cm 4 tubes

#4 Picture

Observations:
We can see that this distribution is not flat at all but differences between the amounts in each tube are not many big.
Average flow rate is 0,92 l/min and the coefficient of variance between each tube is 5,7%. The coefficient of variation between different measurements is 1,8%

Wide: 1m		AIXR 110.04										Replicas CV
	Boom Pressure (bar)	amount tube x tube (2,5cm)					amount by 4 tubes (10cm)					
		Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)			
Treatment												
Height	Space	Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency	
50 cm	50 cm	1	132,8	13,86%	0,943	0,27%	100,1%	133,4	12,47%	0,947	0,27%	100,6%	1,0%

#3 Picture

Observations:
This distribution is not flat and neither homogeneous but it is quite symmetrical. We can see that underneath the spraying nozzles there are the lowest values.
Average flow rate is 0,94 l/min and the coefficient of variance between each tube is 13,9%. The coefficient of variation between different measurements is 1%

			AIRmix 110.05								
Wide: 1m		Boom Pressure (bar)	amount tube x tube (2,5cm)				amount by 4 tubes (10cm)				Replicas CV
Treatment			Amount of liquid x tube (ml)		Flow Rate (l/m)		Amount of liquid x tube (ml)		Flow Rate (l/m)		
Height	Space		Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency	
30 cm	25 cm	1	159,1	2,68%	1,198	0,24%	98,8%	159,3	2,01%	1,199	0,23%	98,9%	0,8%

AIRmix 1m H:30cm S:25cm tube by tube

AIRmix 1m H:30cm S:25cm 4 tubes

#3 Picture

Observations:

This distribution is quite regular and almost flat. It has many little differences that make it not homogeneous at all.
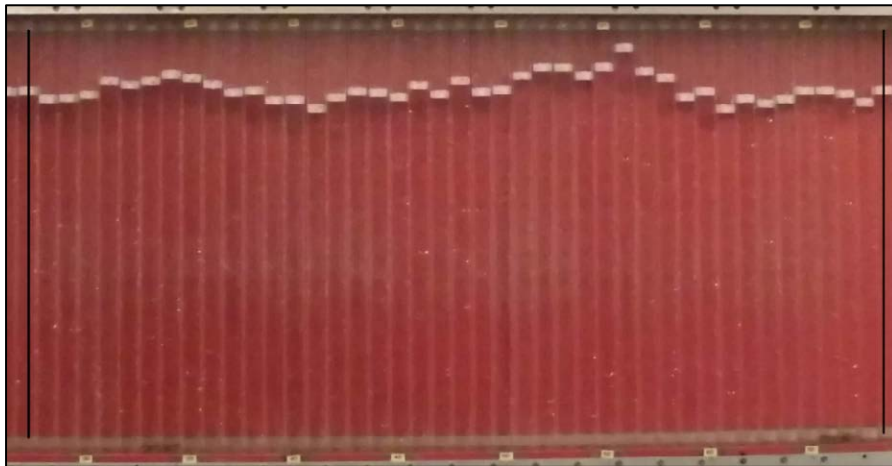
Average flow rate is 1,2 l/min and the coefficient of variance between each tube is 2,7%. The coefficient of variation between different measurements is 0,8%

Wide: 1m		AIRmix 110.05										
	Boom Pressure (bar)	amount tube x tube (2,5cm)					amount by 4 tubes (10cm)					Replicas CV
		Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)			
Treatment												
Height	Space		Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency	
30 cm	50 cm	1	121,4	21,97%	1,231	0,67%	102,1%	120,5	20,53%	1,222	0,64%	101,3%	1,6%

AIRmix 1m H:30cm S:50cm tube by tube

AIRmix 1m H:30cm S:50cm 4 tubes

#2 Picture

Observations:

This distribution is not flat but it follows a pattern. We can find the lowest values placed underneath the closed nozzles and the highest ones underneath the spraying nozzles. It is symmetrical.

Average flow rate is 1,2 l/min and the coefficient of variance between each tube is 22%. The coefficient of variation between different measurements is 1,6%

Wide: 1m		AIRmix 110.05										
	Boom Pressure (bar)	amount tube x tube (2,5cm)					amount by 4 tubes (10cm)					Replicas CV
Treatment		Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)			
Height	Space		Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency	
50 cm	25 cm	1	158,7	2,18%	1,184	0,32%	97,6%	158,7	1,63%	1,184	0,28%	97,6%	0,3%

AIRmix 1m H:50cm S:25cm tube by tube

AIRmix 1m H:50cm S:25cm 4 tubes

#3 Picture

Observations:

We can see that this distribution is almost flat and homogeneous despite having some differences, but they are not so big.

Average flow rate is 1,2 l/min and the coefficient of variance between each tube is 2,2%. The coefficient of variation between different measurements is 0,4%

Wide: 1m		AIRmix 110.05									
	Boom Pressure (bar)	amount tube x tube (2,5cm)					amount by 4 tubes (10cm)				Replicas CV
Treatment		Amount of liquid x tube (ml)		Flow Rate (l/m)			Amount of liquid x tube (ml)		Flow Rate (l/m)		
Height	Space		Average	tubes CV	Average	CV	Efficiency	Average	tubes CV	Average	CV	Efficiency	
50 cm	50 cm	1	150,5	7,76%	1,207	0,20%	100,1%	151,0	6,91%	1,211	0,18%	100,4%	0,5%

AIRmix 1m H:50cm S:50cm tube by tube

AIRmix 1m H:50cm S:50cm 4 tubes

#3 Picture

Observations:

This distribution is a bit irregular and heterogeneous. It has lowest values placed underneath the spraying nozzles and the highest ones are placed underneath the closed nozzles.

Average flow rate is 1,2 l/min and the coefficient of variance between each tube is 7,8%. The coefficient of variation between different measurements is 0,5%

Appendix III. Testbench Results – Spraying Chamber

XR 110.04	Height	30 cm		Spacing	25 cm		Speed	2 m/s

% deposition

Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.63%	0.02%	0.08%	0.02%	0.01%	0.15%
2	7.6	0.25%	0.05%	0.04%	0.09%	0.03%	0.09%
3	7.1	0.14%	0.06%	0.10%	0.06%	0.08%	0.09%
4	6.6	0.15%	0.14%	0.20%	0.08%	0.18%	0.15%
5	6.1	0.21%	0.15%	0.10%	0.11%	0.16%	0.15%
6	5.6	0.11%	0.15%	0.12%	0.14%	0.15%	0.13%
7	5.1	0.14%	0.09%	0.07%	0.18%	0.25%	0.15%
8	4.6	0.14%	0.16%	0.10%	0.21%	0.20%	0.16%
9	4.1	0.20%	0.34%	0.11%	0.23%	0.23%	0.22%
10	3.6	0.25%	0.33%	0.31%	0.22%	0.19%	0.26%
11	3.1	0.35%	0.36%	0.41%	0.16%	0.33%	0.32%
12	2.6	0.42%	0.42%	0.51%	0.39%	0.59%	0.47%
13	2.1	0.59%	0.61%	0.72%	0.58%	0.68%	0.64%
14	1.6	0.84%	0.94%	0.75%	0.93%	0.94%	0.88%
15	1.1	1.23%	1.13%	0.98%	1.56%	0.96%	1.17%
16	0.6	1.33%	1.55%	1.48%	1.72%	1.48%	1.51%
	Sum total	6.97%	6.49%	6.09%	6.66%	6.45%	6.53%
	Sum 12coll	2.99%	2.27%	2.16%	1.88%	2.39%	2.34%
	DPV	6.97	6.49	6.09	6.66	6.45	6.53

Absolute deposition [μL/cm^2]

Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.03439	0.00124	0.00496	0.00138	0.00084	0.00856
2	7.6	0.01355	0.00256	0.00266	0.00568	0.00191	0.00527
3	7.1	0.00742	0.00341	0.00622	0.00342	0.00448	0.00499
4	6.6	0.00845	0.00764	0.01248	0.00473	0.01026	0.00871
5	6.1	0.01160	0.00834	0.00635	0.00661	0.00910	0.00840
6	5.6	0.00619	0.00825	0.00738	0.00873	0.00870	0.00785
7	5.1	0.00746	0.00489	0.00459	0.01100	0.01451	0.00849
8	4.6	0.00768	0.00908	0.00644	0.01313	0.01140	0.00955
9	4.1	0.01081	0.01934	0.00714	0.01408	0.01306	0.01289
10	3.6	0.01345	0.01887	0.01931	0.01355	0.01067	0.01517
11	3.1	0.01918	0.02048	0.02530	0.01004	0.01886	0.01877
12	2.6	0.02270	0.02390	0.03179	0.02407	0.03406	0.02730
13	2.1	0.03210	0.03463	0.04456	0.03593	0.03928	0.03730
14	1.6	0.04579	0.05327	0.04678	0.05755	0.05391	0.05146
15	1.1	0.06686	0.06358	0.06104	0.09661	0.05535	0.06869
16	0.6	0.07264	0.08741	0.09195	0.10635	0.08506	0.08868

XR 110.04	Sum 12coll Height	0.16288 30 cm	0.12800 Spacing	0.13462 50 cm	0.11642 Speed	0.13786 2 m/s	0.13596

% deposition

Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.03%	0.04%	0.03%	0.03%	0.04%	0.03%
2	7.6	0.04%	0.06%	0.08%	0.06%	0.04%	0.06%
3	7.1	0.15%	0.06%	0.09%	0.05%	0.07%	0.09%
4	6.6	0.23%	0.07%	0.21%	0.09%	0.12%	0.14%
5	6.1	0.24%	0.20%	0.11%	0.07%	0.12%	0.15%
6	5.6	0.15%	0.28%	0.29%	0.19%	0.47%	0.28%
7	5.1	0.32%	0.46%	0.42%	0.39%	0.40%	0.40%
8	4.6	0.24%	0.41%	0.37%	0.35%	0.31%	0.34%
9	4.1	0.41%	0.25%	0.27%	0.20%	0.35%	0.29%
10	3.6	0.39%	0.52%	0.33%	0.40%	0.38%	0.40%
11	3.1	0.38%	0.48%	0.38%	0.38%	0.48%	0.42%
12	2.6	0.34%	0.60%	0.40%	0.50%	0.54%	0.48%
13	2.1	0.62%	0.68%	0.55%	0.77%	0.28%	0.58%
14	1.6	1.22%	0.63%	0.75%	2.13%	0.52%	1.05%
15	1.1	1.38%	1.35%	2.12%	2.76%	1.97%	1.92%
16	0.6	1.68%	1.43%	1.88%	1.83%	1.36%	1.64%
	Sum total	7.83%	7.55%	8.26%	10.21%	7.44%	8.26%
	Sum 12coll	2.93%	3.45%	2.96%	2.71%	3.32%	3.07%
	DPV	7.83	7.55	8.26	10.21	7.44	8.26

Absolute deposition [μL/cm^2]

Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00095	0.00130	0.00104	0.00082	0.00108	0.00104
2	7.6	0.00117	0.00203	0.00234	0.00178	0.00125	0.00171
3	7.1	0.00450	0.00206	0.00273	0.00163	0.00205	0.00259
4	6.6	0.00678	0.00224	0.00650	0.00266	0.00353	0.00434
5	6.1	0.00714	0.00641	0.00325	0.00213	0.00349	0.00448
6	5.6	0.00450	0.00909	0.00877	0.00582	0.01395	0.00843
7	5.1	0.00941	0.01461	0.01279	0.01205	0.01193	0.01216
8	4.6	0.00703	0.01311	0.01136	0.01076	0.00941	0.01033
9	4.1	0.01182	0.00783	0.00824	0.00622	0.01049	0.00892
10	3.6	0.01133	0.01672	0.01013	0.01208	0.01135	0.01232
11	3.1	0.01109	0.01541	0.01157	0.01162	0.01438	0.01281
12	2.6	0.00982	0.01922	0.01219	0.01528	0.01630	0.01456
13	2.1	0.01798	0.02181	0.01703	0.02359	0.00825	0.01773
14	1.6	0.03560	0.02018	0.02292	0.06492	0.01559	0.03184
15	1.1	0.04020	0.04292	0.06524	0.08438	0.05897	0.05834
16	0.6	0.04912	0.04576	0.05772	0.05603	0.04077	0.04988

	Sum 12coll	0.08554	0.11002	0.09091	0.08284	0.09922	0.09371
XR 110.04	Height	50 cm	Spacing	25 cm	Speed	2 m/s	

% deposition

Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.06%	0.12%	0.04%	0.04%	0.03%	0.06%
2	7.6	0.05%	0.06%	0.03%	0.04%	0.02%	0.04%
3	7.1	0.20%	0.35%	0.15%	0.08%	0.12%	0.18%
4	6.6	0.31%	0.21%	0.18%	0.34%	0.31%	0.27%
5	6.1	0.18%	0.36%	0.13%	0.32%	0.13%	0.22%
6	5.6	0.09%	0.29%	0.11%	0.21%	0.26%	0.19%
7	5.1	0.13%	0.12%	0.07%	0.18%	0.25%	0.15%
8	4.6	0.16%	0.14%	0.20%	0.23%	0.21%	0.19%
9	4.1	0.48%	0.31%	0.31%	0.66%	0.57%	0.46%
10	3.6	0.57%	0.35%	0.37%	0.64%	0.51%	0.49%
11	3.1	0.45%	0.48%	0.54%	0.70%	0.50%	0.53%
12	2.6	0.40%	0.58%	0.62%	0.67%	0.58%	0.57%
13	2.1	0.86%	1.25%	1.08%	1.31%	1.41%	1.18%
14	1.6	1.76%	1.97%	2.19%	1.98%	1.53%	1.89%
15	1.1	4.72%	3.37%	1.99%	2.91%	3.38%	3.27%
16	0.6	4.20%	3.65%	3.60%		4.49%	3.99%
	Sum total	14.61%	13.60%	11.60%	10.31%	14.31%	13.68%
	Sum 12coll	3.07%	3.37%	2.73%	4.11%	3.50%	3.36%
	DPV	14.61	13.60	11.60	10.31	14.31	13.68

Absolute deposition [µL/cm^2]

Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00290	0.00587	0.00212	0.00182	0.00151	0.00284
2	7.6	0.00228	0.00271	0.00152	0.00212	0.00115	0.00196
3	7.1	0.00966	0.01718	0.00695	0.00417	0.00613	0.00882
4	6.6	0.01462	0.01013	0.00845	0.01748	0.01543	0.01322
5	6.1	0.00837	0.01761	0.00611	0.01640	0.00640	0.01098
6	5.6	0.00425	0.01422	0.00509	0.01067	0.01291	0.00943
7	5.1	0.00593	0.00597	0.00351	0.00922	0.01258	0.00744
8	4.6	0.00781	0.00693	0.00943	0.01157	0.01038	0.00922
9	4.1	0.02264	0.01511	0.01462	0.03384	0.02801	0.02285
10	3.6	0.02696	0.01731	0.01755	0.03254	0.02533	0.02394
11	3.1	0.02110	0.02374	0.02586	0.03572	0.02470	0.02623
12	2.6	0.01896	0.02859	0.02970	0.03439	0.02882	0.02809
13	2.1	0.04048	0.06123	0.05182	0.06724	0.07000	0.05816
14	1.6	0.08328	0.09670	0.10483	0.10139	0.07585	0.09241
15	1.1	0.22359	0.16552	0.09543	0.14860	0.16753	0.16013
16	0.6	0.19895	0.17940	0.17242	-	0.22249	0.19332

XR 110.04	Sum 12coll	0.14549	0.16539	0.13091	0.20994	0.17336	0.16502
	Height	50 cm	Spacing	50 cm	Speed	2 m/s	

% deposition

Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.32%	0.13%	0.19%	0.23%	0.19%	0.21%
2	7.6	0.12%	0.19%	0.28%	0.28%	0.12%	0.20%
3	7.1	0.29%	0.70%	0.49%	0.45%	0.51%	0.49%
4	6.6	0.10%	0.24%	0.26%	0.57%	0.24%	0.28%
5	6.1	0.27%	0.18%	0.14%	0.21%	0.20%	0.20%
6	5.6	0.50%	0.14%	0.32%	0.34%	0.18%	0.30%
7	5.1	0.46%	0.18%	0.25%	0.12%	0.26%	0.25%
8	4.6	0.48%	0.34%	0.40%	0.42%	0.29%	0.39%
9	4.1	0.74%	0.98%	0.34%	0.28%	0.40%	0.55%
10	3.6	1.25%	0.77%	0.66%	0.67%	0.42%	0.75%
11	3.1	2.02%	1.50%	1.35%	0.54%	0.96%	1.27%
12	2.6	1.11%	1.06%	1.46%	1.32%	0.65%	1.12%
13	2.1	1.35%	1.34%	1.53%	1.58%	0.84%	1.33%
14	1.6	3.84%	1.42%	4.36%	5.81%	4.17%	3.92%
15	1.1	6.39%	2.72%	3.17%	5.21%	2.33%	3.96%
16	0.6	7.68%	6.35%	4.85%	7.21%	7.61%	6.74%
Sum total		26.90%	18.23%	20.06%	25.24%	19.37%	21.96%
Sum 12coll		7.66%	6.41%	6.15%	5.45%	4.41%	6.01%
DPV		26.90	18.23	20.06	25.24	19.37	21.96

Absolute deposition [µL/cm^2]

Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00882	0.00398	0.00517	0.00633	0.00528	0.00592
2	7.6	0.00331	0.00557	0.00786	0.00784	0.00339	0.00559
3	7.1	0.00803	0.02094	0.01371	0.01250	0.01452	0.01394
4	6.6	0.00275	0.00727	0.00730	0.01570	0.00684	0.00797
5	6.1	0.00745	0.00532	0.00402	0.00595	0.00551	0.00565
6	5.6	0.01392	0.00426	0.00885	0.00954	0.00494	0.00830
7	5.1	0.01286	0.00534	0.00688	0.00337	0.00722	0.00713
8	4.6	0.01322	0.01011	0.01115	0.01157	0.00830	0.01087
9	4.1	0.02062	0.02937	0.00938	0.00783	0.01140	0.01572
10	3.6	0.03466	0.02298	0.01846	0.01868	0.01176	0.02131
11	3.1	0.05601	0.04497	0.03736	0.01482	0.02699	0.03603
12	2.6	0.03092	0.03164	0.04059	0.03661	0.01836	0.03163
13	2.1	0.03738	0.03999	0.04260	0.04362	0.02380	0.03748
14	1.6	0.10658	0.04248	0.12105	0.16079	0.11774	0.10973
15	1.1	0.17731	0.08124	0.08798	0.14417	0.06590	0.11132
16	0.6	0.21311	0.18976	0.13476	0.19951	0.21483	0.19039

	Sum 12coll	0.21256	0.19175	0.17073	0.15075	0.12452	0.17006
DG 110.04	Height	30 cm	Spacing	25 cm	Speed	2 m/s	

% deposition

Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.02%	0.04%	0.02%	0.02%	0.01%	0.02%
2	7.6	0.09%	0.03%	0.03%	0.08%	0.04%	0.05%
3	7.1	0.21%	0.03%	0.05%	0.15%	0.13%	0.11%
4	6.6	0.21%	0.04%	0.09%	0.09%	0.14%	0.12%
5	6.1	0.10%	0.01%	0.07%	0.07%	0.08%	0.06%
6	5.6	0.04%	0.10%	0.03%	0.05%	0.19%	0.08%
7	5.1	0.05%	0.05%	0.06%	0.05%	0.19%	0.08%
8	4.6	0.07%	0.05%	0.08%	0.12%	0.17%	0.10%
9	4.1	0.15%	0.13%	0.15%	0.14%	0.23%	0.16%
10	3.6	0.14%	0.10%	0.19%	0.15%	0.18%	0.15%
11	3.1	0.27%	0.23%	0.18%	0.32%	0.33%	0.27%
12	2.6	0.45%	0.29%	0.39%	0.38%	0.41%	0.39%
13	2.1	0.63%	0.33%	0.45%	0.39%	0.47%	0.46%
14	1.6	0.80%	0.76%	0.56%	0.52%	0.81%	0.69%
15	1.1	1.08%	1.14%	1.15%	0.98%	0.90%	1.05%
16	0.6	1.81%	1.38%	1.33%	1.38%	1.87%	1.55%
	Sum total	6.13%	4.72%	4.83%	4.89%	6.14%	5.14%
	Sum 12coll	1.80%	1.10%	1.35%	1.61%	2.09%	1.46%
	DPV	6.13	4.72	4.83	4.89	6.14	5.14

Absolute deposition [µL/cm^2]

Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00095	0.00193	0.00089	0.00089	0.00069	0.00107
2	7.6	0.00471	0.00139	0.00178	0.00432	0.00195	0.00283
3	7.1	0.01129	0.00184	0.00279	0.00790	0.00689	0.00614
4	6.6	0.01174	0.00238	0.00488	0.00499	0.00708	0.00621
5	6.1	0.00562	0.00047	0.00375	0.00367	0.00392	0.00349
6	5.6	0.00240	0.00558	0.00178	0.00263	0.00985	0.00445
7	5.1	0.00256	0.00286	0.00348	0.00294	0.00993	0.00435
8	4.6	0.00359	0.00285	0.00430	0.00634	0.00884	0.00518
9	4.1	0.00801	0.00697	0.00833	0.00730	0.01192	0.00851
10	3.6	0.00788	0.00538	0.01023	0.00798	0.00951	0.00820
11	3.1	0.01505	0.01235	0.00967	0.01714	0.01704	0.01425
12	2.6	0.02495	0.01605	0.02127	0.02034	0.02121	0.02076
13	2.1	0.03462	0.01826	0.02466	0.02085	0.02459	0.02460
14	1.6	0.04420	0.04146	0.03033	0.02782	0.04235	0.03723
15	1.1	0.05936	0.06211	0.06232	0.05273	0.04667	0.05664
16	0.6	0.09953	0.07545	0.07211	0.07386	0.09726	0.08364
	Sum 12coll	0.09875	0.06004	0.07316	0.08645	0.10883	0.08545

DG 110.04	Height	30 cm	Spacing	25 cm	Speed	2 m/s	
			% deposition				
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.02%	0.04%	0.02%	0.02%	0.01%	0.02%
2	7.6	0.09%	0.03%	0.03%	0.08%	0.04%	0.05%
3	7.1	0.21%	0.03%	0.05%	0.15%	0.13%	0.11%
4	6.6	0.21%	0.04%	0.09%	0.09%	0.14%	0.12%
5	6.1	0.10%	0.01%	0.07%	0.07%	0.08%	0.06%
6	5.6	0.04%	0.10%	0.03%	0.05%	0.19%	0.08%
7	5.1	0.05%	0.05%	0.06%	0.05%	0.19%	0.08%
8	4.6	0.07%	0.05%	0.08%	0.12%	0.17%	0.10%
9	4.1	0.15%	0.13%	0.15%	0.14%	0.23%	0.16%
10	3.6	0.14%	0.10%	0.19%	0.15%	0.18%	0.15%
11	3.1	0.27%	0.23%	0.18%	0.32%	0.33%	0.27%
12	2.6	0.45%	0.29%	0.39%	0.38%	0.41%	0.39%
13	2.1	0.63%	0.33%	0.45%	0.39%	0.47%	0.46%
14	1.6	0.80%	0.76%	0.56%	0.52%	0.81%	0.69%
15	1.1	1.08%	1.14%	1.15%	0.98%	0.90%	1.05%
16	0.6	1.81%	1.38%	1.33%	1.38%	1.87%	1.55%
	Sum total	6.13%	4.72%	4.83%	4.89%	6.14%	5.14%
	Sum 12coll	1.80%	1.10%	1.35%	1.61%	2.09%	1.46%
	DPV	6.13	4.72	4.83	4.89	6.14	5.14

			Absolute deposition [µL/cm^2]				
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00095	0.00193	0.00089	0.00089	0.00069	0.00107
2	7.6	0.00471	0.00139	0.00178	0.00432	0.00195	0.00283
3	7.1	0.01129	0.00184	0.00279	0.00790	0.00689	0.00614
4	6.6	0.01174	0.00238	0.00488	0.00499	0.00708	0.00621
5	6.1	0.00562	0.00047	0.00375	0.00367	0.00392	0.00349
6	5.6	0.00240	0.00558	0.00178	0.00263	0.00985	0.00445
7	5.1	0.00256	0.00286	0.00348	0.00294	0.00993	0.00435
8	4.6	0.00359	0.00285	0.00430	0.00634	0.00884	0.00518
9	4.1	0.00801	0.00697	0.00833	0.00730	0.01192	0.00851
10	3.6	0.00788	0.00538	0.01023	0.00798	0.00951	0.00820
11	3.1	0.01505	0.01235	0.00967	0.01714	0.01704	0.01425
12	2.6	0.02495	0.01605	0.02127	0.02034	0.02121	0.02076
13	2.1	0.03462	0.01826	0.02466	0.02085	0.02459	0.02460
14	1.6	0.04420	0.04146	0.03033	0.02782	0.04235	0.03723
15	1.1	0.05936	0.06211	0.06232	0.05273	0.04667	0.05664
16	0.6	0.09953	0.07545	0.07211	0.07386	0.09726	0.08364
	Sum 12coll	0.09875	0.06004	0.07316	0.08645	0.10883	0.08545

DG 110.04	Height	50 cm	Spacing	25 cm	Speed	2 m/s	
			% deposition				
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.02%	0.01%	0.06%	3.10%	0.03%	0.03%
2	7.6	0.02%	0.01%	0.09%	0.22%	0.03%	0.07%
3	7.1	0.04%	0.08%	0.46%	0.19%	0.12%	0.18%
4	6.6	0.18%	0.27%	0.45%	0.31%	0.10%	0.26%
5	6.1	0.18%	0.25%	0.25%	0.17%	0.08%	0.19%
6	5.6	0.14%	0.17%	0.17%	0.20%	0.16%	0.17%
7	5.1	0.15%	0.18%	0.15%	0.19%	0.16%	0.17%
8	4.6	0.13%	0.19%	0.19%	0.21%	0.15%	0.18%
9	4.1	0.35%	0.37%	0.36%	0.64%	0.21%	0.38%
10	3.6	0.25%	0.32%	0.45%	0.32%	0.27%	0.32%
11	3.1	0.33%	0.28%	0.54%	0.42%	0.46%	0.41%
12	2.6	1.00%	0.57%	0.69%	0.99%	0.56%	0.76%
13	2.1	1.24%	1.13%	1.26%	1.31%	1.16%	1.22%
14	1.6	1.99%	1.52%	2.06%	1.98%	1.73%	1.86%
15	1.1	2.00%	2.16%	2.83%	2.67%	2.65%	2.46%
16	0.6	3.15%	3.30%	4.32%	3.83%	4.15%	3.75%
	Sum total	11.18%	10.80%	14.34%	16.75%	12.02%	13.27%
	Sum 12coll	2.80%	2.69%	3.86%	6.97%	2.33%	4.08%
	DPV	11.18	10.80	14.34	16.75	12.02	13.27

Absolute deposition [µL/cm^2]

Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00106	0.00070	0.00273	0.15976	0.00157	0.03316
2	7.6	0.00112	0.00041	0.00444	0.01120	0.00158	0.00375
3	7.1	0.00222	0.00404	0.02278	0.00983	0.00622	0.00902
4	6.6	0.00913	0.01350	0.02224	0.01616	0.00509	0.01323
5	6.1	0.00888	0.01238	0.01237	0.00878	0.00427	0.00934
6	5.6	0.00686	0.00830	0.00847	0.01039	0.00849	0.00850
7	5.1	0.00765	0.00925	0.00762	0.00987	0.00809	0.00850
8	4.6	0.00660	0.00963	0.00937	0.01091	0.00789	0.00888
9	4.1	0.01732	0.01831	0.01772	0.03291	0.01069	0.01939
10	3.6	0.01257	0.01598	0.02235	0.01642	0.01372	0.01621
11	3.1	0.01641	0.01380	0.02680	0.02174	0.02404	0.02056
12	2.6	0.04989	0.02848	0.03420	0.05097	0.02881	0.03847
13	2.1	0.06195	0.05643	0.06242	0.06730	0.05979	0.06158
14	1.6	0.09954	0.07608	0.10189	0.10223	0.08946	0.09384
15	1.1	0.09995	0.10817	0.14013	0.13736	0.13725	0.12457
16	0.6	0.15746	0.16544	0.21362	0.19706	0.21460	0.18964
	Sum 12coll	0.13970	0.13479	0.19108	0.35893	0.12046	0.18899

DG 110.04	Height	50 cm	Spacing	50 cm	Speed	2 m/s	
		% deposition					
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.14%	0.12%	0.13%	0.09%	0.19%	0.13%
2	7.6	0.18%	0.20%	0.21%	0.20%	0.46%	0.25%
3	7.1	0.25%	0.34%	0.14%	0.09%	0.22%	0.21%
4	6.6	0.09%	0.29%	0.23%	0.10%	0.15%	0.17%
5	6.1	0.12%	0.23%	0.12%	0.11%	0.18%	0.15%
6	5.6	0.11%	0.36%	0.25%	0.13%	0.08%	0.19%
7	5.1	0.07%	0.14%	0.07%	0.13%	0.10%	0.10%
8	4.6	0.07%	0.15%	0.11%	0.40%	0.22%	0.19%
9	4.1	0.30%	0.07%	0.22%	0.39%	0.26%	0.24%
10	3.6	0.17%	0.32%	0.50%	0.28%	0.36%	0.33%
11	3.1	0.49%	0.41%	0.56%	0.24%	0.42%	0.42%
12	2.6	0.67%	0.71%	0.41%	0.27%	0.45%	0.50%
13	2.1	0.58%	0.85%	0.77%	0.94%	1.75%	0.98%
14	1.6	1.56%	2.59%	1.33%	0.92%	1.17%	1.51%
15	1.1	2.24%	2.18%	2.05%	1.99%	2.84%	2.26%
16	0.6	3.08%	3.52%	4.87%	3.15%	2.54%	3.43%
	Sum	10.11%	12.49%	11.98%	9.42%	11.37%	11.07%
	Sum 12coll	2.66%	3.34%	2.96%	2.43%	3.08%	2.89%
	DPV	10.11	12.49	11.98	9.42	11.37	11.07

Absolute deposition [µL/cm^2]

Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00351	0.00318	0.00323	0.00221	0.00471	0.00337
2	7.6	0.00444	0.00526	0.00522	0.00494	0.01150	0.00627
3	7.1	0.00627	0.00903	0.00352	0.00223	0.00544	0.00530
4	6.6	0.00217	0.00778	0.00570	0.00243	0.00368	0.00435
5	6.1	0.00313	0.00618	0.00298	0.00258	0.00451	0.00388
6	5.6	0.00286	0.00940	0.00618	0.00310	0.00208	0.00473
7	5.1	0.00175	0.00372	0.00172	0.00325	0.00258	0.00261
8	4.6	0.00171	0.00395	0.00274	0.00970	0.00565	0.00475
9	4.1	0.00739	0.00177	0.00538	0.00936	0.00648	0.00608
10	3.6	0.00431	0.00834	0.01235	0.00668	0.00913	0.00816
11	3.1	0.01234	0.01074	0.01378	0.00579	0.01048	0.01063
12	2.6	0.01666	0.01881	0.01017	0.00646	0.01123	0.01267
13	2.1	0.01443	0.02242	0.01909	0.02273	0.04405	0.02454
14	1.6	0.03900	0.06840	0.03293	0.02226	0.02940	0.03840
15	1.1	0.05619	0.05739	0.05054	0.04810	0.07144	0.05673
16	0.6	0.07713	0.09290	0.12008	0.07629	0.06400	0.08608
	Sum 12coll	0.06654	0.08817	0.07297	0.05874	0.07747	0.07278

IDN	Height	30 cm	Spacing	25 cm	Speed	2 m/s	
120.03			% deposition				
	Distance						
Collector	(m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.02%	0.01%	0.02%	0.02%	0.01%	0.01%
2	7.6	0.05%	0.00%	0.03%	0.03%	0.01%	0.02%
3	7.1	0.05%	0.06%	0.04%	0.06%	0.03%	0.05%
4	6.6	0.05%	0.07%	0.03%	0.04%	0.02%	0.04%
5	6.1	0.04%	0.01%	0.01%	0.01%	0.02%	0.02%
6	5.6	0.03%	0.02%	0.02%	0.02%	0.02%	0.02%
7	5.1	0.02%	0.02%	0.02%	0.02%	0.01%	0.02%
8	4.6	0.05%	0.05%	0.03%	0.03%	0.03%	0.04%
9	4.1	0.03%	0.02%	0.03%	0.02%	0.02%	0.02%
10	3.6	0.07%	0.03%	0.03%	0.02%	0.02%	0.03%
11	3.1	0.07%	0.07%	0.03%	0.03%	0.03%	0.05%
12	2.6	0.10%	0.08%	0.05%	0.05%	0.05%	0.07%
13	2.1	0.11%	0.06%	0.07%	0.08%	0.08%	0.08%
14	1.6	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%
15	1.1	0.13%	0.10%	0.11%	0.11%	0.18%	0.13%
16	0.6	0.25%	0.34%	0.25%	0.21%	0.15%	0.24%
	Sum total	1.16%	1.03%	0.87%	0.83%	0.78%	0.94%
	Sum 12coll	0.56%	0.43%	0.34%	0.34%	0.27%	0.39%
	DPV	1.16	1.03	0.87	0.83	0.78	0.94

Actual Depotision [µL/cm^2]

Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00085	0.00023	0.00069	0.00070	0.00026	0.00055
2	7.6	0.00193	0.00014	0.00099	0.00134	0.00044	0.00097
3	7.1	0.00191	0.00253	0.00172	0.00221	0.00099	0.00187
4	6.6	0.00185	0.00313	0.00104	0.00153	0.00070	0.00165
5	6.1	0.00158	0.00039	0.00054	0.00029	0.00067	0.00069
6	5.6	0.00103	0.00074	0.00076	0.00065	0.00091	0.00082
7	5.1	0.00079	0.00072	0.00065	0.00061	0.00043	0.00064
8	4.6	0.00207	0.00202	0.00131	0.00106	0.00099	0.00149
9	4.1	0.00135	0.00084	0.00118	0.00064	0.00057	0.00092
10	3.6	0.00262	0.00131	0.00100	0.00065	0.00077	0.00127
11	3.1	0.00263	0.00298	0.00104	0.00126	0.00122	0.00182
12	2.6	0.00388	0.00318	0.00199	0.00205	0.00208	0.00263
13	2.1	0.00438	0.00269	0.00268	0.00300	0.00318	0.00319
14	1.6	0.00413	0.00411	0.00385	0.00366	0.00369	0.00389
15	1.1	0.00528	0.00433	0.00439	0.00422	0.00688	0.00502
16	0.6	0.01020	0.01417	0.00962	0.00811	0.00570	0.00956

IDN 120.03	Sum 12coll Height	0.02248 30 cm	0.01820 Spacing	0.01290 50 cm	0.01297 Speed	0.01003 2 m/s	0.01532

%dposition (% deposition)

Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.07%	0.06%	0.02%	0.02%	0.02%	0.04%
2	7.6	0.04%	0.08%	0.02%	0.00%	0.04%	0.04%
3	7.1	0.01%	0.02%	0.04%	0.01%	0.03%	0.02%
4	6.6	0.01%	0.06%	0.02%	0.01%	0.00%	0.02%
5	6.1	0.04%	0.03%	0.01%	0.00%	0.00%	0.02%
6	5.6	0.02%	0.02%	0.01%	0.01%	0.01%	0.01%
7	5.1	0.03%	0.01%	0.01%	0.01%	0.00%	0.01%
8	4.6	0.03%	0.01%	0.02%	0.01%	0.01%	0.02%
9	4.1	0.02%	0.02%	0.00%	0.01%	0.00%	0.01%
10	3.6	0.02%	0.02%	0.00%	0.01%	0.00%	0.01%
11	3.1	0.02%	0.09%	0.00%	0.00%	0.00%	0.02%
12	2.6	0.02%	0.05%	0.01%	0.01%	0.01%	0.02%
13	2.1	0.03%	0.06%	0.00%	0.00%	0.01%	0.02%
14	1.6	0.06%	0.07%	0.07%	0.04%	0.06%	0.06%
15	1.1	0.10%	0.11%	0.03%	0.04%	0.03%	0.06%
16	0.6	0.24%	0.05%	0.14%	0.12%	0.07%	0.12%
	Sum total	0.76%	0.76%	0.40%	0.29%	0.29%	0.50%
	Sum 12coll	0.33%	0.47%	0.15%	0.09%	0.12%	0.23%
	DPV	0.76	0.76	0.40	0.29	0.29	0.50

Actual Depotision [μL/cm^2]

Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00132	0.00109	0.00033	0.00038	0.00030	0.00068
2	7.6	0.00085	0.00142	0.00032	0.00009	0.00065	0.00067
3	7.1	0.00027	0.00041	0.00077	0.00021	0.00056	0.00044
4	6.6	0.00018	0.00118	0.00038	0.00024	0.00009	0.00041
5	6.1	0.00068	0.00050	0.00025	0.00000	0.00001	0.00029
6	5.6	0.00045	0.00029	0.00018	0.00013	0.00020	0.00025
7	5.1	0.00049	0.00010	0.00011	0.00015	0.00007	0.00018
8	4.6	0.00055	0.00022	0.00046	0.00015	0.00015	0.00031
9	4.1	0.00030	0.00046	-0.00006	0.00014	-0.00007	0.00015
10	3.6	0.00042	0.00036	0.00003	0.00013	0.00000	0.00019
11	3.1	0.00031	0.00160	0.00008	0.00000	0.00004	0.00041
12	2.6	0.00040	0.00097	0.00013	0.00017	0.00027	0.00039
13	2.1	0.00061	0.00112	0.00002	0.00007	0.00010	0.00038
14	1.6	0.00115	0.00137	0.00146	0.00070	0.00116	0.00117
15	1.1	0.00188	0.00207	0.00059	0.00069	0.00056	0.00116
16	0.6	0.00459	0.00086	0.00271	0.00224	0.00122	0.00232

IDN	Sum 12coll	0.00624	0.00859	0.00299	0.00178	0.00228	0.00438
	Height	50 cm	Spacing	25 cm	Speed	2 m/s	
120.03			% deposition				
	Distance						
Collector	(m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.06%	0.01%	0.00%	0.02%	0.00%	0.02%
2	7.6	0.02%	0.00%	0.01%	0.01%	0.00%	0.01%
3	7.1	0.12%	0.00%	0.05%	0.02%	0.01%	0.04%
4	6.6	0.16%	0.04%	0.05%	0.08%	0.04%	0.07%
5	6.1	0.07%	0.05%	0.02%	0.06%	0.02%	0.04%
6	5.6	0.05%	0.03%	0.04%	0.02%	0.02%	0.03%
7	5.1	0.18%	0.05%	0.05%	0.02%	0.08%	0.08%
8	4.6	0.11%	0.05%	0.10%	0.04%	0.17%	0.10%
9	4.1	0.15%	0.05%	0.08%	0.04%	0.03%	0.07%
10	3.6	0.17%	0.07%	0.07%	0.05%	0.03%	0.08%
11	3.1	0.21%	0.13%	0.19%	0.04%	0.07%	0.13%
12	2.6	0.22%	0.11%	0.13%	0.14%	0.16%	0.15%
13	2.1	0.28%	0.11%	0.21%	0.20%	0.13%	0.19%
14	1.6	0.28%	0.15%	0.21%	0.19%	0.12%	0.19%
15	1.1	0.34%	0.28%	0.41%	0.18%	0.21%	0.28%
16	0.6	0.92%	0.55%	0.72%	0.50%	0.57%	0.65%
	Sum total	3.34%	1.71%	2.33%	1.60%	1.66%	2.13%
	Sum 12coll	1.51%	0.61%	0.78%	0.54%	0.64%	0.82%
	DPV	3.34	1.71	2.33	1.60	1.66	2.13

Actual Depotision [µL/cm^2]

Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00238	0.00046	0.00012	0.00092	0.00007	0.00079
2	7.6	0.00073	0.00014	0.00034	0.00040	0.00012	0.00035
3	7.1	0.00493	0.00011	0.00198	0.00077	0.00021	0.00160
4	6.6	0.00620	0.00156	0.00219	0.00310	0.00159	0.00293
5	6.1	0.00277	0.00208	0.00065	0.00240	0.00068	0.00172
6	5.6	0.00183	0.00104	0.00150	0.00069	0.00099	0.00121
7	5.1	0.00711	0.00209	0.00212	0.00096	0.00310	0.00308
8	4.6	0.00453	0.00218	0.00405	0.00167	0.00688	0.00386
9	4.1	0.00603	0.00199	0.00311	0.00144	0.00131	0.00278
10	3.6	0.00664	0.00295	0.00281	0.00198	0.00139	0.00315
11	3.1	0.00851	0.00531	0.00746	0.00140	0.00283	0.00510
12	2.6	0.00857	0.00449	0.00504	0.00535	0.00641	0.00597
13	2.1	0.01107	0.00456	0.00837	0.00773	0.00532	0.00741
14	1.6	0.01124	0.00594	0.00845	0.00740	0.00461	0.00753
15	1.1	0.01366	0.01125	0.01644	0.00707	0.00828	0.01134
16	0.6	0.03648	0.02191	0.02877	0.01935	0.02272	0.02585

IDN	Sum 12coll	0.06023	0.02440	0.03137	0.02107	0.02560	0.03253
	Height	50 cm	Spacing	50 cm	Speed	2 m/s	
120.03			% deposition				
	Distance						
Collector	(m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.02%	0.02%	0.02%	0.00%	0.00%	0.01%
2	7.6	0.02%	0.01%	0.01%	0.01%	0.01%	0.01%
3	7.1	0.02%	0.03%	0.04%	0.02%	0.07%	0.04%
4	6.6	0.03%	0.03%	0.05%	0.01%	0.04%	0.03%
5	6.1	0.03%	0.01%	0.00%	0.01%	-0.01%	0.01%
6	5.6	0.04%	0.02%	0.00%	0.00%	0.03%	0.02%
7	5.1	0.04%	0.02%	0.03%	0.03%	0.04%	0.03%
8	4.6	0.06%	0.02%	0.03%	0.03%	0.02%	0.03%
9	4.1	0.01%	0.04%	0.03%	0.00%	0.03%	0.02%
10	3.6	0.07%	0.03%	0.08%	0.01%	0.03%	0.04%
11	3.1	0.09%	0.01%	0.06%	0.11%	0.04%	0.06%
12	2.6	0.23%	0.11%	0.10%	0.13%	0.11%	0.13%
13	2.1	0.07%	0.16%	0.34%	0.73%	0.03%	0.27%
14	1.6	0.18%	0.21%	0.25%	0.18%	0.24%	0.21%
15	1.1	0.32%	0.37%	0.26%	0.24%	0.26%	0.29%
16	0.6	0.56%	0.58%	0.65%	0.38%	0.47%	0.53%
	Sum total	0.00%	0.00%	0.00%	0.00%	0.00%	1.74%
	Sum 12coll	0.66%	0.34%	0.45%	0.36%	0.39%	0.44%
	DPV	0.00	0.00	0.00	0.00	0.00	1.74

Actual Depotision [μL/cm^2]

Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00031	0.00041	0.00043	0.00005	0.00009	0.00026
2	7.6	0.00049	0.00024	0.00023	0.00025	0.00024	0.00029
3	7.1	0.00041	0.00054	0.00089	0.00043	0.00153	0.00076
4	6.6	0.00053	0.00060	0.00106	0.00013	0.00077	0.00062
5	6.1	0.00059	0.00017	0.00010	0.00011	-0.00032	0.00013
6	5.6	0.00078	0.00032	-0.00002	0.00005	0.00070	0.00037
7	5.1	0.00076	0.00043	0.00069	0.00058	0.00097	0.00069
8	4.6	0.00120	0.00036	0.00057	0.00059	0.00037	0.00062
9	4.1	0.00028	0.00082	0.00053	0.00009	0.00056	0.00045
10	3.6	0.00152	0.00070	0.00159	0.00020	0.00057	0.00092
11	3.1	0.00179	0.00019	0.00121	0.00219	0.00082	0.00124
12	2.6	0.00481	0.00219	0.00205	0.00253	0.00234	0.00278
13	2.1	0.00139	0.00329	0.00716	0.01449	0.00073	0.00541
14	1.6	0.00375	0.00421	0.00525	0.00362	0.00516	0.00440
15	1.1	0.00655	0.00744	0.00544	0.00465	0.00577	0.00597
16	0.6	0.01142	0.01176	0.01367	0.00748	0.01033	0.01093

	Sum 12coll	0.01345	0.00697	0.00933	0.00722	0.00865	0.00912
XLTD 110.04	Height	30 cm	Spacing	25 cm	Speed	2 m/s	

% deposition

Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.02%	0.01%	0.01%	0.02%	0.11%	0.03%
2	7.6	0.01%	0.00%	0.07%	0.08%	0.07%	0.05%
3	7.1	0.02%	0.04%	0.08%	0.07%	0.03%	0.05%
4	6.6	0.04%	0.05%	0.04%	0.07%	0.03%	0.05%
5	6.1	0.03%	0.04%	0.02%	0.07%	0.04%	0.04%
6	5.6	0.02%	0.03%	0.03%	0.06%	0.05%	0.04%
7	5.1	0.03%	0.04%	0.04%	0.03%	0.03%	0.03%
8	4.6	0.06%	0.05%	0.07%	0.06%	0.05%	0.06%
9	4.1	0.09%	0.08%	0.06%	0.06%	0.07%	0.07%
10	3.6	0.13%	0.10%	0.08%	0.07%	0.09%	0.09%
11	3.1	0.14%	0.10%	0.10%	0.12%	0.09%	0.11%
12	2.6	0.14%	0.14%	0.11%	0.16%	0.12%	0.13%
13	2.1	0.15%	0.23%	0.17%	0.19%	0.16%	0.18%
14	1.6	0.20%	0.26%	0.14%	0.30%	0.22%	0.22%
15	1.1	0.26%	0.29%	0.17%	0.30%	0.28%	0.26%
16	0.6	0.36%	0.35%	0.50%	0.35%	0.29%	0.37%
	Sum total	1.70%	1.80%	1.71%	1.99%	1.72%	1.78%
	Sum 12coll	0.72%	0.68%	0.72%	0.85%	0.78%	0.75%
	DPV	1.70	1.80	1.71	1.99	1.72	1.78

Actual Depotision [μL/cm^2]

Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00095	0.00042	0.00062	0.00087	0.00622	0.00181
2	7.6	0.00051	0.00026	0.00407	0.00438	0.00406	0.00266
3	7.1	0.00134	0.00234	0.00457	0.00383	0.00200	0.00282
4	6.6	0.00238	0.00288	0.00246	0.00409	0.00186	0.00274
5	6.1	0.00177	0.00239	0.00145	0.00384	0.00239	0.00237
6	5.6	0.00131	0.00207	0.00193	0.00322	0.00281	0.00227
7	5.1	0.00186	0.00223	0.00254	0.00200	0.00147	0.00202
8	4.6	0.00335	0.00316	0.00429	0.00325	0.00302	0.00341
9	4.1	0.00520	0.00483	0.00375	0.00363	0.00393	0.00427
10	3.6	0.00739	0.00586	0.00471	0.00383	0.00532	0.00542
11	3.1	0.00820	0.00603	0.00608	0.00678	0.00501	0.00642
12	2.6	0.00799	0.00821	0.00659	0.00907	0.00681	0.00773
13	2.1	0.00895	0.01381	0.01020	0.01111	0.00929	0.01067
14	1.6	0.01206	0.01538	0.00819	0.01705	0.01253	0.01304
15	1.1	0.01530	0.01721	0.01031	0.01694	0.01605	0.01516
16	0.6	0.02137	0.02098	0.02963	0.01981	0.01664	0.02169
	Sum 12coll	0.04224	0.04070	0.04305	0.04880	0.04489	0.04394

XLTD 110.04	Height	30 cm	Spacing	50 cm	Speed	2 m/s	
			% deposition				
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.25%	0.08%	0.05%	0.08%	0.05%	0.10%
2	7.6	0.02%	0.06%	0.06%	0.02%	0.05%	0.05%
3	7.1	0.04%	0.09%	0.04%	0.05%	0.05%	0.05%
4	6.6	0.03%	0.03%	0.04%	0.06%	0.06%	0.04%
5	6.1	0.12%	0.02%	0.01%	0.08%	0.03%	0.05%
6	5.6	0.04%	0.02%	0.03%	0.05%	0.02%	0.03%
7	5.1	0.03%	0.02%	0.04%	0.04%	0.02%	0.03%
8	4.6	0.03%	0.03%	0.04%	0.03%	0.03%	0.03%
9	4.1	0.04%	0.03%	0.08%	0.02%	0.02%	0.04%
10	3.6	0.05%	0.04%	0.05%	0.01%	0.01%	0.03%
11	3.1	0.04%	0.05%	0.06%	0.02%	0.03%	0.04%
12	2.6	0.04%	0.04%	0.03%	0.04%	0.04%	0.04%
13	2.1	0.05%	0.06%	0.07%	0.06%	0.06%	0.06%
14	1.6	0.07%	0.06%	0.09%	0.06%	0.04%	0.07%
15	1.1	0.09%	0.10%	0.08%	0.07%	0.17%	0.10%
16	0.6	0.08%	0.10%	0.42%	0.07%	0.18%	0.17%
	Sum total	1.02%	0.86%	1.20%	0.76%	0.88%	0.94%
	Sum 12coll	0.73%	0.53%	0.54%	0.50%	0.42%	0.55%
	DPV	1.02	0.86	1.20	0.76	0.88	0.94

			Actual Depotision [µL/cm^2]				
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00766	0.00258	0.00152	0.00240	0.00149	0.00313
2	7.6	0.00067	0.00197	0.00186	0.00071	0.00148	0.00134
3	7.1	0.00109	0.00272	0.00109	0.00156	0.00158	0.00161
4	6.6	0.00085	0.00105	0.00123	0.00168	0.00162	0.00129
5	6.1	0.00354	0.00068	0.00037	0.00225	0.00083	0.00153
6	5.6	0.00118	0.00074	0.00076	0.00156	0.00068	0.00098
7	5.1	0.00081	0.00076	0.00112	0.00104	0.00066	0.00088
8	4.6	0.00104	0.00084	0.00108	0.00083	0.00087	0.00093
9	4.1	0.00000	0.00087	0.00221	0.00046	0.00072	0.00085
10	3.6	0.00164	0.00119	0.00151	0.00040	0.00041	0.00103
11	3.1	0.00124	0.00144	0.00180	0.00062	0.00093	0.00121
12	2.6	0.00112	0.00123	0.00093	0.00132	0.00120	0.00116
13	2.1	0.00149	0.00180	0.00198	0.00170	0.00161	0.00172
14	1.6	0.00225	0.00189	0.00261	0.00168	0.00132	0.00195
15	1.1	0.00259	0.00309	0.00243	0.00212	0.00506	0.00306
16	0.6	0.00238	0.00312	0.01224	0.00209	0.00526	0.00502
	Sum 12coll	0.02084	0.01608	0.01548	0.01484	0.01245	0.01594

XLTD 110.04	Height	50 cm	Spacing	25 cm	Speed	2 m/s	
			% deposition				
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.02%	0.01%	0.01%	0.04%	0.01%	0.02%
2	7.6	0.01%	0.01%	0.01%	0.02%	0.02%	0.01%
3	7.1	0.02%	0.02%	0.01%	0.04%	0.02%	0.02%
4	6.6	0.03%	0.04%	0.01%	0.03%	0.04%	0.03%
5	6.1	0.03%	0.06%	0.06%	0.07%	0.02%	0.05%
6	5.6	0.02%	0.04%	0.06%	0.05%	0.13%	0.06%
7	5.1	0.04%	0.07%	0.07%	0.04%	0.11%	0.06%
8	4.6	0.22%	0.14%	0.12%	0.17%	0.15%	0.16%
9	4.1	0.19%	0.33%	0.09%	0.20%	0.10%	0.18%
10	3.6	0.24%	0.24%	0.22%	0.17%	0.12%	0.20%
11	3.1	0.13%	0.18%	0.20%	0.14%	0.10%	0.15%
12	2.6	0.10%	0.16%	0.22%	0.31%	0.14%	0.18%
13	2.1	0.36%	0.23%	0.12%	0.36%	0.23%	0.26%
14	1.6	0.23%	0.29%	0.30%	0.36%	0.25%	0.29%
15	1.1	0.42%	0.51%	0.36%	0.37%	0.45%	0.42%
16	0.6	0.75%	1.27%	0.81%	1.06%	0.83%	0.95%
	Sum total	2.82%	3.60%	2.67%	3.42%	2.73%	3.05%
	Sum 12coll	1.06%	1.30%	1.07%	1.27%	0.96%	1.13%
	DPV	2.82	3.60	2.67	3.42	2.73	3.05

			Actual Depotision [µL/cm^2]				
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00127	0.00045	0.00048	0.00222	0.00067	0.00102
2	7.6	0.00064	0.00066	0.00040	0.00103	0.00125	0.00080
3	7.1	0.00108	0.00082	0.00068	0.00214	0.00140	0.00123
4	6.6	0.00181	0.00212	0.00073	0.00165	0.00246	0.00175
5	6.1	0.00160	0.00329	0.00328	0.00387	0.00111	0.00263
6	5.6	0.00122	0.00230	0.00312	0.00296	0.00720	0.00336
7	5.1	0.00241	0.00358	0.00392	0.00191	0.00596	0.00356
8	4.6	0.01191	0.00751	0.00656	0.00908	0.00861	0.00874
9	4.1	0.01061	0.01744	0.00523	0.01071	0.00574	0.00995
10	3.6	0.01297	0.01252	0.01234	0.00899	0.00663	0.01069
11	3.1	0.00695	0.00955	0.01088	0.00744	0.00548	0.00806
12	2.6	0.00535	0.00821	0.01201	0.01664	0.00770	0.00998
13	2.1	0.01949	0.01223	0.00683	0.01958	0.01321	0.01427
14	1.6	0.01280	0.01523	0.01656	0.01925	0.01429	0.01563
15	1.1	0.02320	0.02688	0.02029	0.02008	0.02538	0.02316
16	0.6	0.04122	0.06716	0.04527	0.05710	0.04713	0.05158
	Sum 12coll	0.05783	0.06845	0.05963	0.06864	0.05420	0.06175

XLTD 110.04	Height	50 cm	Spacing	50 cm	Speed	2 m/s	
			% deposition				
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.20%	0.03%	0.04%	0.04%	0.00%	0.06%
2	7.6	0.10%	0.02%	0.04%	0.04%	0.03%	0.05%
3	7.1	0.15%	0.06%	0.09%	0.04%	0.05%	0.08%
4	6.6	0.28%	0.11%	0.11%	0.07%	0.04%	0.12%
5	6.1	0.31%	0.05%	0.29%	0.10%	0.10%	0.17%
6	5.6	0.15%	0.03%	0.13%	0.06%	0.03%	0.08%
7	5.1	0.16%	0.02%	0.08%	0.06%	0.07%	0.08%
8	4.6	0.20%	0.05%	0.07%	0.04%	0.09%	0.09%
9	4.1	0.17%	0.05%	0.09%	0.03%	0.05%	0.08%
10	3.6	0.20%	0.11%	0.13%	0.06%	0.15%	0.13%
11	3.1	0.15%	0.08%	0.16%	0.08%	0.19%	0.13%
12	2.6	0.16%	0.14%	0.11%	0.10%	0.29%	0.16%
13	2.1	0.23%	0.17%	0.19%	0.24%	0.19%	0.20%
14	1.6	0.22%	0.18%	0.13%	0.40%	0.22%	0.23%
15	1.1	0.29%	0.43%	0.44%	0.51%	0.52%	0.44%
16	0.6	0.40%	0.69%	0.62%	0.63%	0.63%	0.60%
	Sum total	3.38%	2.23%	2.73%	2.51%	2.66%	2.70%
	Sum 12coll	2.23%	0.76%	1.35%	0.73%	1.10%	1.23%
	DPV	3.38	2.23	2.73	2.51	2.66	2.70

		Actual Depotision [µL/cm^2]					
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00537	0.00085	0.00118	0.00104	0.00012	0.00171
2	7.6	0.00288	0.00052	0.00123	0.00106	0.00085	0.00131
3	7.1	0.00424	0.00168	0.00255	0.00105	0.00131	0.00216
4	6.6	0.00779	0.00283	0.00309	0.00194	0.00111	0.00335
5	6.1	0.00839	0.00131	0.00817	0.00256	0.00245	0.00457
6	5.6	0.00416	0.00079	0.00362	0.00165	0.00069	0.00218
7	5.1	0.00434	0.00040	0.00230	0.00172	0.00187	0.00212
8	4.6	0.00558	0.00132	0.00186	0.00099	0.00221	0.00239
9	4.1	0.00454	0.00141	0.00241	0.00092	0.00116	0.00209
10	3.6	0.00548	0.00294	0.00352	0.00164	0.00371	0.00346
11	3.1	0.00410	0.00214	0.00435	0.00221	0.00485	0.00353
12	2.6	0.00444	0.00362	0.00313	0.00274	0.00745	0.00427
13	2.1	0.00642	0.00432	0.00539	0.00634	0.00481	0.00546
14	1.6	0.00608	0.00467	0.00349	0.01078	0.00565	0.00613
15	1.1	0.00804	0.01128	0.01216	0.01356	0.01320	0.01165
16	0.6	0.01109	0.01798	0.01724	0.01678	0.01598	0.01581
	Sum 12coll	0.06130	0.01981	0.03740	0.01952	0.02778	0.03316

AIXR 110.04	Height	30 cm	Spacing	25 cm	Speed	2 m/s	
			% deposition				
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.05%	0.01%	0.07%	0.00%	0.00%	0.03%
2	7.6	0.04%	0.01%	0.07%	0.03%	0.02%	0.04%
3	7.1	0.04%	0.00%	0.04%	0.04%	0.03%	0.03%
4	6.6	0.07%	0.01%	0.05%	0.03%	0.03%	0.04%
5	6.1	0.08%	0.01%	0.06%	0.01%	0.01%	0.03%
6	5.6	0.11%	0.01%	0.04%	0.00%	0.01%	0.03%
7	5.1	0.05%	0.01%	0.05%	0.01%	0.01%	0.03%
8	4.6	0.09%	0.01%	0.05%	0.02%	0.01%	0.04%
9	4.1	0.07%	0.01%	0.05%	0.02%	0.02%	0.03%
10	3.6	0.04%	0.01%	0.04%	0.02%	0.02%	0.03%
11	3.1	0.05%	0.01%	0.06%	0.02%	0.02%	0.03%
12	2.6	0.10%	0.03%	0.07%	0.03%	0.06%	0.06%
13	2.1	0.11%	0.02%	0.10%	0.02%	0.07%	0.06%
14	1.6	0.08%	0.03%	0.08%	0.03%	0.12%	0.07%
15	1.1	0.13%	0.05%	0.17%	0.05%	0.08%	0.10%
16	0.6	0.14%	0.12%	0.21%	0.17%	0.21%	0.17%
	Sum total	1.26%	0.36%	1.22%	0.50%	0.73%	0.81%
	Sum 12coll	0.81%	0.14%	0.65%	0.23%	0.25%	0.42%
	DPV	1.26	0.36	1.22	0.50	0.73	0.81

		Absolute deposition [µL/cm^2]					
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00185	0.00045	0.00260	0.00017	0.00017	0.00105
2	7.6	0.00137	0.00040	0.00270	0.00117	0.00068	0.00126
3	7.1	0.00157	0.00010	0.00137	0.00144	0.00117	0.00113
4	6.6	0.00259	0.00027	0.00188	0.00109	0.00122	0.00141
5	6.1	0.00289	0.00031	0.00227	0.00026	0.00045	0.00123
6	5.6	0.00380	0.00023	0.00132	0.00018	0.00029	0.00116
7	5.1	0.00191	0.00037	0.00188	0.00036	0.00041	0.00098
8	4.6	0.00326	0.00034	0.00191	0.00085	0.00026	0.00132
9	4.1	0.00233	0.00022	0.00170	0.00077	0.00071	0.00115
10	3.6	0.00140	0.00038	0.00139	0.00061	0.00080	0.00091
11	3.1	0.00190	0.00043	0.00222	0.00065	0.00061	0.00116
12	2.6	0.00350	0.00093	0.00248	0.00099	0.00223	0.00203
13	2.1	0.00376	0.00064	0.00356	0.00078	0.00257	0.00226
14	1.6	0.00269	0.00098	0.00299	0.00115	0.00413	0.00239
15	1.1	0.00437	0.00171	0.00619	0.00204	0.00275	0.00341
16	0.6	0.00471	0.00395	0.00775	0.00618	0.00752	0.00602
	Sum 12coll	0.02836	0.00442	0.02374	0.00854	0.00899	0.01481

AIXR 110.04	Height	30 cm	Spacing	50 cm	Speed	2 m/s	
		% deposition					
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.04%	0.04%	0.05%	0.06%	0.00%	0.04%
2	7.6	0.03%	0.07%	0.02%	0.01%	0.01%	0.03%
3	7.1	0.04%	0.03%	0.05%	0.05%	0.01%	0.03%
4	6.6	0.02%	0.03%	0.02%	0.01%	0.01%	0.02%
5	6.1	0.01%	0.02%	0.00%	0.00%	0.05%	0.02%
6	5.6	0.01%	0.01%	0.01%	0.00%	0.00%	0.01%
7	5.1	0.01%	0.01%	0.00%	0.00%	0.02%	0.01%
8	4.6	0.02%	0.01%	0.00%	0.00%	0.00%	0.01%
9	4.1	0.01%	0.02%	0.01%	0.00%	0.00%	0.01%
10	3.6	0.01%	0.02%	0.00%	0.00%	0.00%	0.01%
11	3.1	0.02%	0.00%	0.00%	0.00%	0.01%	0.00%
12	2.6	0.03%	0.02%	0.00%	0.02%	0.01%	0.01%
13	2.1	0.04%	0.05%	0.01%	0.06%	0.01%	0.03%
14	1.6	0.15%	0.05%	0.03%	0.06%	0.09%	0.08%
15	1.1	0.04%	0.04%	0.07%	0.06%	0.12%	0.06%
16	0.6	0.13%	0.06%	0.16%	0.11%	0.12%	0.12%
	Sum total	0.60%	0.48%	0.42%	0.42%	0.45%	0.47%
	Sum 12coll	0.26%	0.29%	0.14%	0.14%	0.11%	0.19%
	DPV	0.60	0.48	0.42	0.42	0.45	0.47

		Absolute deposition [μL/cm^2]					
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00079	0.00079	0.00093	0.00097	0.00007	0.00071
2	7.6	0.00049	0.00132	0.00028	0.00009	0.00018	0.00047
3	7.1	0.00069	0.00057	0.00081	0.00076	0.00019	0.00060
4	6.6	0.00040	0.00047	0.00028	0.00020	0.00011	0.00029
5	6.1	0.00026	0.00033	-0.00003	0.00002	0.00097	0.00031
6	5.6	0.00020	0.00020	0.00018	0.00005	-0.00003	0.00012
7	5.1	0.00024	0.00023	-0.00005	-0.00007	0.00033	0.00014
8	4.6	0.00040	0.00024	0.00000	0.00005	-0.00004	0.00013
9	4.1	0.00018	0.00042	0.00017	-0.00005	-0.00001	0.00014
10	3.6	0.00022	0.00028	0.00000	0.00000	0.00003	0.00011
11	3.1	0.00038	-0.00002	0.00001	-0.00002	0.00012	0.00009
12	2.6	0.00050	0.00034	-0.00005	0.00027	0.00017	0.00025
13	2.1	0.00069	0.00084	0.00026	0.00095	0.00023	0.00059
14	1.6	0.00274	0.00091	0.00055	0.00094	0.00181	0.00139
15	1.1	0.00071	0.00063	0.00119	0.00102	0.00229	0.00117
16	0.6	0.00235	0.00104	0.00285	0.00179	0.00241	0.00209
	Sum 12coll	0.00475	0.00517	0.00251	0.00227	0.00207	0.00335

AIXR 110.04	Height	50 cm	Spacing	25 cm	Speed	2 m/s	
			% deposition				
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.04%	0.03%	0.00%	0.01%	0.00%	0.02%
2	7.6	0.05%	0.02%	0.00%	0.03%	0.00%	0.02%
3	7.1	0.02%	0.01%	0.01%	-	0.01%	0.01%
4	6.6	0.04%	0.04%	0.05%	0.04%	0.05%	0.04%
5	6.1	0.07%	0.04%	0.04%	0.07%	0.05%	0.05%
6	5.6	0.08%	0.06%	0.06%	0.05%	0.04%	0.06%
7	5.1	0.05%	0.06%	0.03%	0.07%	0.03%	0.05%
8	4.6	0.13%	0.07%	0.05%	0.05%	0.08%	0.08%
9	4.1	0.05%	0.07%	0.05%	0.07%	0.05%	0.06%
10	3.6	0.07%	0.09%	0.07%	0.08%	0.07%	0.07%
11	3.1	0.11%	0.13%	0.04%	0.10%	0.07%	0.09%
12	2.6	0.09%	0.18%	0.08%	0.14%	0.08%	0.12%
13	2.1	0.18%	0.14%	0.21%	0.19%	0.15%	0.18%
14	1.6	0.21%	0.23%	0.21%	0.25%	0.25%	0.23%
15	1.1	0.35%	0.25%	0.41%	0.34%	0.32%	0.33%
16	0.6	0.68%	0.86%	0.73%	0.73%	0.86%	0.77%
	Sum total	2.21%	2.30%	2.05%	2.22%	2.11%	2.18%
	Sum 12coll	0.79%	0.82%	0.48%	0.70%	0.53%	0.67%
	DPV	2.21	2.30	2.05	2.22	2.11	2.18

		Absolute deposition [µL/cm^2]					
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00129	0.00122	0.00005	0.00027	0.00007	0.00058
2	7.6	0.00154	0.00081	0.00005	0.00093	0.00010	0.00069
3	7.1	0.00054	0.00048	0.00050	-0.00031	0.00044	0.00033
4	6.6	0.00143	0.00130	0.00153	0.00120	0.00173	0.00144
5	6.1	0.00225	0.00141	0.00142	0.00242	0.00169	0.00184
6	5.6	0.00253	0.00225	0.00196	0.00157	0.00143	0.00195
7	5.1	0.00178	0.00211	0.00100	0.00228	0.00086	0.00160
8	4.6	0.00415	0.00260	0.00166	0.00177	0.00253	0.00254
9	4.1	0.00159	0.00263	0.00178	0.00248	0.00162	0.00202
10	3.6	0.00221	0.00314	0.00230	0.00270	0.00232	0.00253
11	3.1	0.00375	0.00461	0.00138	0.00321	0.00221	0.00303
12	2.6	0.00310	0.00654	0.00263	0.00482	0.00256	0.00393
13	2.1	0.00613	0.00502	0.00719	0.00650	0.00505	0.00598
14	1.6	0.00693	0.00806	0.00727	0.00855	0.00821	0.00780
15	1.1	0.01152	0.00888	0.01394	0.01147	0.01054	0.01127
16	0.6	0.02246	0.03069	0.02490	0.02459	0.02841	0.02621
	Sum 12coll	0.02616	0.02910	0.01624	0.02333	0.01757	0.02248

AIXR 110.04	Height	50 cm	Spacing	50 cm	Speed	2 m/s	
			% deposition				
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.03%	0.05%	0.09%	0.00%	0.01%	0.04%
2	7.6	0.03%	0.06%	0.09%	0.00%	0.02%	0.04%
3	7.1	0.04%	0.07%	0.04%	0.02%	0.01%	0.04%
4	6.6	0.06%	0.07%	0.07%	0.10%	0.07%	0.07%
5	6.1	0.04%	0.11%	0.12%	0.08%	0.04%	0.08%
6	5.6	0.03%	0.04%	0.05%	0.05%	0.02%	0.04%
7	5.1	0.03%	0.05%	0.07%	0.05%	0.09%	0.06%
8	4.6	0.05%	0.05%	0.05%	0.07%	0.21%	0.09%
9	4.1	0.08%	0.05%	0.04%	0.03%	0.03%	0.05%
10	3.6	0.17%	0.08%	0.05%	0.08%	0.03%	0.08%
11	3.1	0.09%	0.05%	0.14%	0.05%	0.13%	0.09%
12	2.6	0.18%	0.08%	0.12%	0.06%	0.22%	0.13%
13	2.1	0.09%	0.17%	0.13%	0.13%	0.24%	0.15%
14	1.6	0.21%	0.16%	0.17%	0.10%	0.30%	0.19%
15	1.1	0.34%	0.42%	0.24%	0.30%	0.30%	0.32%
16	0.6	0.58%	0.97%	1.14%	0.64%	0.96%	0.86%
	Sum total	2.04%	2.49%	2.59%	1.78%	2.67%	2.32%
	Sum 12coll	0.83%	0.76%	0.92%	0.60%	0.88%	0.80%
	DPV	2.04	2.49	2.59	1.78	2.67	2.32

			Absolute deposition [µL/cm^2]				
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00061	0.00095	0.00158	0.00008	0.00025	0.00069
2	7.6	0.00062	0.00106	0.00158	0.00000	0.00038	0.00073
3	7.1	0.00091	0.00133	0.00064	0.00048	0.00029	0.00073
4	6.6	0.00114	0.00134	0.00135	0.00203	0.00142	0.00145
5	6.1	0.00076	0.00201	0.00217	0.00153	0.00074	0.00144
6	5.6	0.00069	0.00082	0.00089	0.00106	0.00037	0.00077
7	5.1	0.00064	0.00097	0.00121	0.00098	0.00185	0.00113
8	4.6	0.00112	0.00096	0.00092	0.00137	0.00417	0.00171
9	4.1	0.00158	0.00091	0.00079	0.00059	0.00060	0.00089
10	3.6	0.00337	0.00160	0.00088	0.00151	0.00055	0.00158
11	3.1	0.00183	0.00085	0.00264	0.00089	0.00255	0.00175
12	2.6	0.00359	0.00153	0.00221	0.00122	0.00451	0.00261
13	2.1	0.00184	0.00327	0.00229	0.00260	0.00491	0.00298
14	1.6	0.00426	0.00306	0.00306	0.00203	0.00595	0.00367
15	1.1	0.00685	0.00799	0.00435	0.00574	0.00602	0.00619
16	0.6	0.01185	0.01839	0.02097	0.01246	0.01931	0.01660
	Sum 12coll	0.01685	0.01433	0.01686	0.01173	0.01765	0.01548

AIRmix 110.05	Height	30 cm	Spacing	25 cm	Speed	2 m/s	
			% deposition				
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.19%	0.01%	0.00%	0.07%	0.02%	0.06%
2	7.6	0.13%	0.02%	0.03%	0.05%	0.02%	0.05%
3	7.1	0.08%	0.02%	0.01%	0.01%	0.04%	0.03%
4	6.6	0.10%	0.02%	0.02%	0.02%	0.03%	0.04%
5	6.1	0.04%	0.01%	0.00%	0.02%	0.01%	0.02%
6	5.6	0.03%	0.01%	0.00%	0.01%	0.02%	0.01%
7	5.1	0.03%	0.00%	0.00%	0.01%	0.02%	0.01%
8	4.6	0.05%	0.03%	0.04%	0.02%	0.03%	0.03%
9	4.1	0.05%	0.02%	0.01%	0.02%	0.01%	0.02%
10	3.6	0.08%	0.02%	0.02%	0.03%	0.02%	0.03%
11	3.1	0.10%	0.02%	0.01%	0.05%	0.04%	0.05%
12	2.6	0.12%	0.05%	0.03%	0.06%	0.05%	0.06%
13	2.1	0.06%	0.08%	0.06%	0.06%	0.03%	0.06%
14	1.6	0.13%	0.07%	0.07%	0.04%	0.09%	0.08%
15	1.1	0.19%	0.09%	0.12%	0.07%	0.10%	0.11%
16	0.6	0.24%	0.13%	0.22%	0.14%	0.19%	0.18%
	Sum total	1.62%	0.58%	0.64%	0.69%	0.72%	0.85%
	Sum 12coll	1.00%	0.22%	0.17%	0.38%	0.31%	0.42%
	DPV	1.62	0.58	0.64	0.69	0.72	0.85

		Absolute deposition [μL/cm^2]					
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00741	0.00033	0.00016	0.00287	0.00089	0.00233
2	7.6	0.00532	0.00088	0.00123	0.00185	0.00071	0.00200
3	7.1	0.00322	0.00080	0.00054	0.00057	0.00162	0.00135
4	6.6	0.00408	0.00084	0.00070	0.00089	0.00103	0.00151
5	6.1	0.00173	0.00021	0.00012	0.00077	0.00045	0.00066
6	5.6	0.00123	0.00037	0.00003	0.00053	0.00065	0.00056
7	5.1	0.00104	0.00010	0.00003	0.00043	0.00096	0.00051
8	4.6	0.00209	0.00111	0.00142	0.00100	0.00128	0.00138
9	4.1	0.00197	0.00059	0.00037	0.00099	0.00057	0.00090
10	3.6	0.00303	0.00074	0.00061	0.00123	0.00074	0.00127
11	3.1	0.00408	0.00065	0.00051	0.00204	0.00173	0.00180
12	2.6	0.00461	0.00188	0.00100	0.00236	0.00207	0.00238
13	2.1	0.00219	0.00293	0.00223	0.00250	0.00119	0.00221
14	1.6	0.00513	0.00276	0.00269	0.00180	0.00358	0.00319
15	1.1	0.00760	0.00350	0.00458	0.00270	0.00423	0.00452
16	0.6	0.00941	0.00490	0.00848	0.00569	0.00770	0.00724
	Sum 12coll	0.06415	0.02259	0.02468	0.02821	0.02940	0.03381

AIRmix 110.05	Height	30 cm	Spacing	50 cm	Speed	2 m/s	
			% deposition				
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.08%	0.03%	0.02%	0.02%	0.02%	0.03%
2	7.6	0.04%	0.03%	0.00%	0.02%	0.02%	0.02%
3	7.1	0.05%	0.03%	0.00%	0.02%	0.02%	0.02%
4	6.6	0.05%	0.04%	0.01%	0.03%	0.02%	0.03%
5	6.1	0.03%	0.02%	0.00%	0.00%	0.01%	0.01%
6	5.6	0.01%	0.01%	0.01%	0.00%	0.01%	0.01%
7	5.1	0.03%	0.02%	0.00%	0.00%	0.00%	0.01%
8	4.6	0.05%	0.02%	0.01%	0.00%	0.02%	0.02%
9	4.1	0.02%	0.02%	0.00%	0.01%	0.00%	0.01%
10	3.6	0.01%	0.03%	0.01%	0.01%	0.00%	0.01%
11	3.1	0.01%	0.02%	0.00%	0.00%	0.00%	0.01%
12	2.6	0.03%	0.04%	0.02%	0.01%	0.03%	0.03%
13	2.1	0.00%	0.03%	0.00%	0.04%	0.03%	0.02%
14	1.6	0.01%	0.13%	0.04%	0.01%	0.06%	0.05%
15	1.1	0.09%	0.08%	0.01%	0.03%	0.09%	0.06%
16	0.6	0.10%	0.20%	0.09%	0.04%	0.13%	0.11%
	Sum total	0.61%	0.75%	0.21%	0.23%	0.47%	0.45%
	Sum 12coll	0.40%	0.30%	0.08%	0.11%	0.15%	0.21%
	DPV	0.61	0.75	0.21	0.23	0.47	0.45

		Absolute deposition [µL/cm^2]					
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00167	0.00049	0.00035	0.00047	0.00044	0.00068
2	7.6	0.00084	0.00050	0.00004	0.00034	0.00045	0.00043
3	7.1	0.00100	0.00051	0.00009	0.00036	0.00045	0.00048
4	6.6	0.00101	0.00073	0.00024	0.00053	0.00031	0.00057
5	6.1	0.00059	0.00039	0.00003	0.00000	0.00013	0.00023
6	5.6	0.00030	0.00019	0.00011	0.00007	0.00010	0.00015
7	5.1	0.00060	0.00031	-0.00005	0.00005	-0.00002	0.00018
8	4.6	0.00102	0.00045	0.00014	0.00002	0.00032	0.00039
9	4.1	0.00046	0.00035	-0.00001	0.00010	0.00000	0.00018
10	3.6	0.00015	0.00064	0.00024	0.00012	-0.00001	0.00023
11	3.1	0.00018	0.00043	0.00000	0.00002	0.00004	0.00013
12	2.6	0.00061	0.00081	0.00039	0.00015	0.00055	0.00050
13	2.1	0.00008	0.00065	0.00002	0.00079	0.00058	0.00042
14	1.6	0.00030	0.00248	0.00077	0.00017	0.00113	0.00097
15	1.1	0.00197	0.00157	0.00010	0.00049	0.00170	0.00117
16	0.6	0.00212	0.00389	0.00171	0.00081	0.00238	0.00218
	Sum 12coll	0.01289	0.01436	0.00420	0.00450	0.00854	0.00890

AIRmix 110.05	Height	50 cm	Spacing	25 cm	Speed	2 m/s	
		% deposition					
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.07%	0.06%	0.01%	0.01%	0.01%	0.03%
2	7.6	0.04%	0.02%	0.01%	0.01%	0.02%	0.02%
3	7.1	0.04%	0.06%	0.01%	0.02%	0.05%	0.04%
4	6.6	0.05%	0.06%	0.02%	0.02%	0.10%	0.05%
5	6.1	0.09%	0.07%	0.03%	0.05%	0.06%	0.06%
6	5.6	0.06%	0.04%	0.02%	0.04%	0.02%	0.04%
7	5.1	0.05%	0.04%	0.02%	0.04%	0.03%	0.04%
8	4.6	0.06%	0.06%	0.05%	0.03%	0.03%	0.05%
9	4.1	0.07%	0.04%	0.02%	0.03%	0.05%	0.04%
10	3.6	0.10%	0.03%	0.04%	0.08%	0.08%	0.07%
11	3.1	0.07%	0.06%	0.07%	0.05%	0.07%	0.07%
12	2.6	0.13%	0.07%	0.08%	0.12%	0.07%	0.10%
13	2.1	0.19%	0.16%	0.07%	0.11%	0.13%	0.13%
14	1.6	0.20%	0.16%	0.23%	0.20%	0.10%	0.18%
15	1.1	0.33%	0.16%	0.23%	0.33%	0.18%	0.25%
16	0.6	0.53%	0.59%	0.44%	0.40%	0.28%	0.45%
	Sum total	2.10%	1.68%	1.35%	1.55%	1.27%	1.59%
	Sum 12coll	0.84%	0.61%	0.39%	0.51%	0.58%	0.59%
	DPV	2.10	1.68	1.35	1.55	1.27	1.59

		Absolute deposition [µL/cm^2]					
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00315	0.00253	0.00036	0.00045	0.00028	0.00135
2	7.6	0.00156	0.00085	0.00055	0.00047	0.00082	0.00085
3	7.1	0.00174	0.00256	0.00073	0.00090	0.00265	0.00171
4	6.6	0.00224	0.00250	0.00095	0.00087	0.00508	0.00233
5	6.1	0.00384	0.00285	0.00168	0.00240	0.00311	0.00278
6	5.6	0.00280	0.00173	0.00114	0.00175	0.00098	0.00168
7	5.1	0.00209	0.00174	0.00121	0.00190	0.00155	0.00170
8	4.6	0.00269	0.00256	0.00237	0.00131	0.00142	0.00207
9	4.1	0.00306	0.00188	0.00082	0.00124	0.00236	0.00187
10	3.6	0.00421	0.00150	0.00208	0.00347	0.00410	0.00307
11	3.1	0.00320	0.00270	0.00344	0.00239	0.00352	0.00305
12	2.6	0.00571	0.00311	0.00423	0.00528	0.00338	0.00434
13	2.1	0.00817	0.00696	0.00354	0.00491	0.00644	0.00600
14	1.6	0.00856	0.00696	0.01147	0.00873	0.00494	0.00813
15	1.1	0.01441	0.00707	0.01132	0.01461	0.00920	0.01132
16	0.6	0.02308	0.02548	0.02210	0.01778	0.01392	0.02047
	Sum 12coll	0.09050	0.07300	0.06797	0.06847	0.06376	0.07274

AIRmix 110.05	Height	50 cm	Spacing	50 cm	Speed	2 m/s	
			% deposition				
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.02%	0.03%	0.02%	0.02%	0.03%	0.02%
2	7.6	0.02%	0.02%	0.00%	0.03%	0.05%	0.03%
3	7.1	0.09%	0.07%	0.00%	0.07%	0.04%	0.05%
4	6.6	0.20%	0.03%	0.01%	0.04%	0.04%	0.06%
5	6.1	0.08%	0.01%	0.05%	0.08%	0.02%	0.05%
6	5.6	0.05%	0.06%	0.04%	0.03%	0.05%	0.04%
7	5.1	0.07%	0.03%	0.02%	0.06%	0.00%	0.04%
8	4.6	0.06%	0.04%	0.01%	0.05%	0.05%	0.04%
9	4.1	0.05%	0.05%	0.03%	0.06%	0.06%	0.05%
10	3.6	0.03%	0.07%	0.04%	0.09%	0.10%	0.06%
11	3.1	0.07%	0.06%	0.01%	0.09%	0.04%	0.06%
12	2.6	0.20%	0.07%	0.04%	0.20%	0.14%	0.13%
13	2.1	0.13%	0.13%	0.06%	0.11%	0.25%	0.14%
14	1.6	0.16%	0.18%	0.15%	0.29%	0.26%	0.21%
15	1.1	0.27%	0.44%	0.39%	0.32%	0.56%	0.40%
16	0.6	0.66%	0.96%	0.77%	1.07%	0.76%	0.84%
	Sum total	2.17%	2.24%	1.65%	2.62%	2.45%	2.23%
	Sum 12coll	0.95%	0.53%	0.28%	0.82%	0.62%	0.64%
	DPV	2.17	2.24	1.65	2.62	2.45	2.23

		Absolute deposition [$\mu L/cm^2$]					
Collector	Distance (m)	rep 1	rep 2	rep 3	rep 4	rep 5	average
1	8.1	0.00049	0.00076	0.00037	0.00042	0.00072	0.00055
2	7.6	0.00050	0.00040	0.00011	0.00076	0.00116	0.00058
3	7.1	0.00193	0.00150	0.00007	0.00159	0.00095	0.00121
4	6.6	0.00439	0.00063	0.00022	0.00098	0.00082	0.00141
5	6.1	0.00179	0.00025	0.00107	0.00177	0.00040	0.00106
6	5.6	0.00099	0.00128	0.00090	0.00071	0.00102	0.00098
7	5.1	0.00154	0.00073	0.00052	0.00125	0.00011	0.00083
8	4.6	0.00139	0.00082	0.00032	0.00105	0.00121	0.00096
9	4.1	0.00103	0.00103	0.00064	0.00132	0.00128	0.00106
10	3.6	0.00072	0.00158	0.00080	0.00200	0.00212	0.00144
11	3.1	0.00163	0.00132	0.00032	0.00200	0.00091	0.00123
12	2.6	0.00434	0.00151	0.00092	0.00438	0.00313	0.00286
13	2.1	0.00281	0.00301	0.00136	0.00246	0.00559	0.00305
14	1.6	0.00347	0.00397	0.00350	0.00644	0.00578	0.00463
15	1.1	0.00591	0.00984	0.00873	0.00717	0.01236	0.00880
16	0.6	0.01431	0.02138	0.01753	0.02387	0.01688	0.01879
	Sum 12coll	0.04724	0.05001	0.03738	0.05816	0.05445	0.04945

Appendix IV. Testbench Results – Droevendaal Farm

XR 110.04		Height	30 cm	Spacing	25 cm	Speed	2 m/s
			% deposition				
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.01%	0.02%	0.07%	0.03%	0.01%	0.03%
2	9.6	0.00%	0.02%	0.03%	0.02%	0.01%	0.02%
3	9.1	0.01%	0.01%	0.02%	0.01%	0.01%	0.01%
4	8.6	0.02%	0.02%	0.02%	0.03%	0.03%	0.02%
5	8.1	0.02%	0.01%	0.02%	0.01%	0.01%	0.01%
6	7.6	0.01%	0.02%	0.02%	0.01%	0.01%	0.01%
7	7.1	0.01%	0.04%	0.01%	0.01%	0.01%	0.02%
8	6.6	0.01%	0.02%	0.01%	0.02%	0.02%	0.02%
9	6.1	0.02%	0.02%	0.01%	0.02%	0.02%	0.02%
10	5.6	0.02%	0.03%	0.01%	0.02%	0.03%	0.02%
11	5.1	0.04%	0.04%	0.02%	0.03%	0.03%	0.03%
12	4.6	0.03%	0.04%	0.02%	0.02%	0.03%	0.03%
13	4.1	0.02%	0.02%	0.02%	0.04%	0.04%	0.03%
14	3.6	0.08%	0.04%	0.02%	0.04%	0.05%	0.05%
15	3.1	0.07%	0.05%	0.04%	0.05%	0.05%	0.05%
16	2.6	0.12%	0.08%	0.05%	0.08%	0.10%	0.09%
17	2.1	0.19%	0.10%	0.10%	0.14%	0.26%	0.16%
18	1.6	0.17%	0.14%	0.11%	0.19%	0.30%	0.18%
19	1.1	0.29%	0.23%	0.29%	0.33%	0.40%	0.31%
20	0.6	0.38%	0.27%	0.31%	0.40%	0.49%	0.37%
	Sum total	1.54%	1.21%	1.21%	1.52%	1.91%	1.48%
	DPV	1.54	1.21	1.21	1.52	1.91	1.48

		Absolute deposition [µL/cm^2]					
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00041	0.00095	0.00285	0.00124	0.00045	0.00118
2	9.6	0.00012	0.00080	0.00141	0.00066	0.00049	0.00069
3	9.1	0.00034	0.00033	0.00071	0.00044	0.00043	0.00045
4	8.6	0.00064	0.00086	0.00068	0.00117	0.00119	0.00091
5	8.1	0.00093	0.00024	0.00095	0.00042	0.00036	0.00058
6	7.6	0.00041	0.00071	0.00093	0.00037	0.00046	0.00058
7	7.1	0.00054	0.00162	0.00041	0.00060	0.00061	0.00076
8	6.6	0.00055	0.00095	0.00040	0.00104	0.00072	0.00073
9	6.1	0.00095	0.00087	0.00037	0.00066	0.00081	0.00073
10	5.6	0.00087	0.00126	0.00047	0.00071	0.00109	0.00088
11	5.1	0.00156	0.00144	0.00082	0.00123	0.00143	0.00129
12	4.6	0.00109	0.00145	0.00098	0.00101	0.00141	0.00119
13	4.1	0.00092	0.00095	0.00094	0.00177	0.00148	0.00121
14	3.6	0.00330	0.00176	0.00096	0.00184	0.00188	0.00195
15	3.1	0.00300	0.00205	0.00158	0.00222	0.00199	0.00217
16	2.6	0.00474	0.00324	0.00209	0.00348	0.00404	0.00352
17	2.1	0.00758	0.00394	0.00419	0.00563	0.01065	0.00640
18	1.6	0.00690	0.00586	0.00466	0.00772	0.01243	0.00752
19	1.1	0.01186	0.00952	0.01175	0.01388	0.01626	0.01266
20	0.6	0.01551	0.01088	0.01267	0.01677	0.02026	0.01522

XR 110.04		Height	50 cm	Spacing	50 cm	Speed	2 m/s
				% deposition			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.10%	0.22%	0.04%	0.07%	0.09%	0.10%
2	9.6	0.05%	0.24%	0.07%	0.08%	0.08%	0.12%
3	9.1	0.05%	0.27%	0.11%	0.08%	0.10%	0.14%
4	8.6	0.08%	0.23%	0.11%	0.13%	0.12%	0.15%
5	8.1	0.08%	0.25%	0.14%	0.15%	0.12%	0.16%
6	7.6	0.12%	0.23%	0.22%	0.15%	0.21%	0.20%
7	7.1	0.09%	0.23%	0.22%	0.20%	0.14%	0.20%
8	6.6	0.18%	0.17%	0.17%	0.10%	0.11%	0.14%
9	6.1	0.37%	0.17%	0.20%	0.12%	0.18%	0.17%
10	5.6	0.38%	0.22%	0.28%	0.19%	0.25%	0.23%
11	5.1	0.34%	0.17%	0.53%	0.33%	0.20%	0.31%
12	4.6	0.30%	0.23%	0.49%	0.62%	0.27%	0.40%
13	4.1	0.60%	0.19%	0.52%	0.62%	0.30%	0.41%
14	3.6	0.79%	0.54%	0.53%	0.32%	0.59%	0.50%
15	3.1	0.65%	0.59%	0.54%	1.19%	0.82%	0.78%
16	2.6	0.61%	0.65%	1.24%	0.38%	0.99%	0.82%
17	2.1	0.73%	0.60%	1.43%	2.82%	1.64%	1.62%
18	1.6	1.04%	2.99%	3.34%	3.86%	2.04%	3.06%
19	1.1	2.19%	4.40%	3.63%	2.25%	5.38%	3.92%
20	0.6	2.99%	3.91%	3.82%	3.41%	4.25%	3.85%
	Sum total	11.75%	16.50%	17.62%	17.07%	17.88%	17.27%
	DPV	11.75	16.50	17.62	17.07	17.88	17.27

				Absolute deposition [μL/cm^2]			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00222	0.00604	0.00106	0.00163	0.00206	0.00260
2	9.6	0.00039	0.00468	0.00047	0.00091	0.00071	0.00143
3	9.1	0.00010	0.00302	0.00046	0.00071	0.00072	0.00100
4	8.6	0.00255	0.00115	0.00649	0.00387	0.00414	0.00364
5	8.1	0.00022	0.00187	0.00155	0.00604	0.00069	0.00208
6	7.6	0.00019	0.00066	0.00031	0.00071	0.00065	0.00050
7	7.1	0.00063	0.00059	0.00044	0.00079	0.00073	0.00064
8	6.6	0.00447	0.00105	0.00334	0.00349	0.00493	0.00345
9	6.1	0.00012	0.00369	0.00053	0.00065	0.00073	0.00114
10	5.6	0.00028	0.00078	0.00097	0.00095	0.00071	0.00074
11	5.1	0.00018	0.00050	0.00088	0.00091	0.00139	0.00077
12	4.6	0.00256	0.00080	0.00454	0.00337	0.00722	0.00370
13	4.1	0.00007	0.00575	0.00085	0.00092	0.00125	0.00177
14	3.6	0.00035	0.00062	0.00117	0.00115	0.00123	0.00091
15	3.1	0.00246	0.00041	0.00083	0.00113	0.00085	0.00113
16	2.6	0.00172	0.00056	0.00196	0.00160	0.00269	0.00171
17	2.1	0.00253	0.00349	0.00313	0.00139	0.00814	0.00374
18	1.6	0.00102	0.00109	0.00267	0.00220	0.00448	0.00229
19	1.1	0.00095	0.00079	0.00369	0.00234	0.00442	0.00244
20	0.6	0.00530	0.00081	0.00383	0.00431	0.00496	0.00384

XR 110.04		Height	30 cm	Spacing	25 cm	Speed	4 m/s
				% deposition			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.08%	0.08%	0.09%	0.09%	0.11%	0.09%
2	9.6	0.08%	0.22%	0.14%	0.05%	0.09%	0.12%
3	9.1	0.30%	0.14%	0.19%	0.05%	0.16%	0.17%
4	8.6	0.10%	0.21%	0.17%	0.05%	0.09%	0.13%
5	8.1	0.11%	0.28%	0.19%	0.10%	0.13%	0.16%
6	7.6	0.12%	0.21%	0.14%	0.08%	0.29%	0.17%
7	7.1	0.08%	0.12%	0.12%	0.20%	0.25%	0.16%
8	6.6	0.14%	0.17%	0.16%	0.17%	0.20%	0.17%
9	6.1	0.26%	0.36%	0.25%	0.15%	0.25%	0.25%
10	5.6	0.34%	0.29%	0.36%	0.26%	0.29%	0.31%
11	5.1	0.48%	0.25%	0.67%	0.47%	0.55%	0.48%
12	4.6	0.73%	0.35%	0.42%	0.54%	0.44%	0.50%
13	4.1	0.72%	0.45%	0.32%	0.38%	0.50%	0.47%
14	3.6	0.73%	0.51%	0.32%	0.32%	0.43%	0.46%
15	3.1	0.62%	0.59%	0.49%	0.39%	0.63%	0.54%
16	2.6	0.68%	0.66%	0.65%	0.59%	0.85%	0.69%
17	2.1	1.37%	1.18%	1.08%	1.13%	1.38%	1.23%
18	1.6	1.41%	1.41%	1.19%	1.17%	1.49%	1.33%
19	1.1	1.67%	1.71%	1.37%	1.34%	1.79%	1.57%
20	0.6	1.79%	1.65%	1.40%	1.92%	1.60%	1.67%
	Sum total	11.80%	10.86%	9.71%	9.46%	11.50%	10.67%
	DPV	11.80	10.86	9.71	9.46	11.50	10.67

Absolute deposition [µL/cm^2]

Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00217	0.00232	0.00248	0.00226	0.00258	0.00236
2	9.6	0.00209	0.00614	0.00405	0.00133	0.00202	0.00313
3	9.1	0.00783	0.00397	0.00539	0.00119	0.00365	0.00441
4	8.6	0.00269	0.00589	0.00493	0.00127	0.00206	0.00337
5	8.1	0.00282	0.00779	0.00525	0.00244	0.00304	0.00427
6	7.6	0.00302	0.00587	0.00382	0.00192	0.00682	0.00429
7	7.1	0.00213	0.00347	0.00331	0.00515	0.00583	0.00398
8	6.6	0.00366	0.00482	0.00448	0.00433	0.00470	0.00440
9	6.1	0.00673	0.00988	0.00702	0.00382	0.00574	0.00664
10	5.6	0.00881	0.00818	0.01004	0.00645	0.00673	0.00804
11	5.1	0.01253	0.00696	0.01892	0.01169	0.01278	0.01258
12	4.6	0.01920	0.00975	0.01196	0.01354	0.01024	0.01294
13	4.1	0.01870	0.01252	0.00896	0.00964	0.01159	0.01228
14	3.6	0.01910	0.01414	0.00907	0.00808	0.01001	0.01208
15	3.1	0.01623	0.01648	0.01375	0.00989	0.01453	0.01417
16	2.6	0.01774	0.01837	0.01830	0.01490	0.01976	0.01781
17	2.1	0.03574	0.03293	0.03065	0.02837	0.03194	0.03193
18	1.6	0.03677	0.03927	0.03360	0.02941	0.03457	0.03472
19	1.1	0.04379	0.04752	0.03869	0.03357	0.04150	0.04101
20	0.6	0.04688	0.04603	0.03970	0.04825	0.03705	0.04358

IV - 4

XR 110.04		Height	50 cm	Spacing	50 cm	Speed	4 m/s
			% deposition				
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.62%	0.73%	1.74%	0.27%	0.52%	0.78%
2	9.6	0.73%	0.95%	1.28%	0.65%	0.68%	0.86%
3	9.1	1.61%	3.13%	1.64%	0.84%	0.92%	1.63%
4	8.6	0.97%	2.42%	1.17%	0.74%	1.01%	1.26%
5	8.1	1.06%	1.41%	1.46%	1.51%	1.92%	1.47%
6	7.6	1.74%	2.58%	1.59%	2.99%	1.16%	2.01%
7	7.1	2.16%	1.81%	2.05%	1.93%	1.33%	1.85%
8	6.6	2.06%	2.04%	1.92%	1.64%	1.20%	1.77%
9	6.1	3.18%	2.29%	2.76%	1.76%	1.29%	2.25%
10	5.6	3.34%	3.40%	2.77%	1.66%	1.55%	2.55%
11	5.1	3.14%	4.36%	3.57%	3.94%	2.01%	3.40%
12	4.6	2.19%	3.54%	3.42%	4.07%	1.68%	2.98%
13	4.1	3.64%	2.93%	4.19%	4.82%	1.32%	3.38%
14	3.6	3.58%	2.45%	3.28%	3.46%	2.21%	3.00%
15	3.1	3.63%	4.44%	3.85%	2.44%	2.02%	3.28%
16	2.6	4.01%	4.21%	3.68%	1.93%	2.79%	3.32%
17	2.1	4.65%	3.33%	4.31%	3.05%	3.58%	3.78%
18	1.6	5.82%	3.31%	5.36%	5.38%	5.84%	5.14%
19	1.1	4.21%	4.49%	7.86%	6.35%	5.05%	5.59%
20	0.6	5.22%	6.22%	6.38%	8.68%	4.64%	6.23%
	Sum total	57.54%	60.04%	64.28%	58.12%	42.73%	56.54%
	DPV	57.54	60.04	64.28	58.12	42.73	56.54

		Absolute deposition [μL/cm^2]					
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00720	0.00844	0.02037	0.00315	0.00600	0.00903
2	9.6	0.00844	0.01089	0.01497	0.00760	0.00791	0.00996
3	9.1	0.01867	0.03595	0.01917	0.00983	0.01061	0.01885
4	8.6	0.01126	0.02787	0.01372	0.00862	0.01171	0.01464
5	8.1	0.01230	0.01624	0.01704	0.01771	0.02220	0.01710
6	7.6	0.02019	0.02967	0.01857	0.03509	0.01346	0.02340
7	7.1	0.02508	0.02077	0.02392	0.02260	0.01540	0.02155
8	6.6	0.02393	0.02351	0.02242	0.01927	0.01393	0.02061
9	6.1	0.03702	0.02636	0.03222	0.02057	0.01488	0.02621
10	5.6	0.03887	0.03915	0.03233	0.01944	0.01798	0.02955
11	5.1	0.03647	0.05014	0.04165	0.04623	0.02322	0.03954
12	4.6	0.02546	0.04071	0.03990	0.04773	0.01941	0.03464
13	4.1	0.04236	0.03368	0.04892	0.05646	0.01526	0.03934
14	3.6	0.04167	0.02818	0.03827	0.04057	0.02552	0.03484
15	3.1	0.04226	0.05103	0.04501	0.02858	0.02337	0.03805
16	2.6	0.04659	0.04848	0.04298	0.02266	0.03227	0.03860
17	2.1	0.05402	0.03831	0.05033	0.03578	0.04136	0.04396
18	1.6	0.06763	0.03810	0.06265	0.06308	0.06753	0.05980
19	1.1	0.04900	0.05160	0.09183	0.07439	0.05839	0.06504
20	0.6	0.06071	0.07158	0.07453	0.10180	0.05368	0.07246

DG 110.04		Height	30 cm	Spacing	25 cm	Speed	2 m/s
			% deposition				
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.01%	0.02%	0.04%	0.02%	0.02%	0.02%
2	9.6	0.00%	0.06%	0.01%	0.01%	0.01%	0.02%
3	9.1	0.00%	0.02%	0.01%	0.01%	0.01%	0.01%
4	8.6	0.02%	0.03%	0.01%	0.01%	0.03%	0.02%
5	8.1	0.01%	0.02%	0.01%	0.02%	0.02%	0.02%
6	7.6	0.01%	0.00%	0.02%	0.02%	0.01%	0.01%
7	7.1	0.01%	0.01%	0.01%	0.03%	0.02%	0.02%
8	6.6	0.01%	0.01%	0.02%	0.02%	0.03%	0.02%
9	6.1	0.01%	0.02%	0.02%	0.02%	0.04%	0.02%
10	5.6	0.01%	0.01%	0.01%	0.03%	0.02%	0.02%
11	5.1	0.03%	0.02%	0.03%	0.02%	0.02%	0.02%
12	4.6	0.02%	0.02%	0.02%	0.01%	0.02%	0.02%
13	4.1	0.01%	0.02%	0.02%	0.01%	0.01%	0.01%
14	3.6	0.02%	0.04%	0.03%	0.04%	0.02%	0.03%
15	3.1	0.07%	0.08%	0.05%	0.02%	0.04%	0.05%
16	2.6	0.14%	0.16%	0.13%	0.06%	0.08%	0.11%
17	2.1	0.19%	0.29%	0.21%	0.23%	0.28%	0.24%
18	1.6	0.21%	0.30%	0.15%	0.16%	0.28%	0.22%
19	1.1	0.22%	0.26%	0.27%	0.16%	0.17%	0.21%
20	0.6	0.34%	0.64%	0.49%	0.36%	0.26%	0.42%
	Sum total	1.35%	2.02%	1.55%	1.25%	1.38%	1.51%
	DPV	1.35	2.02	1.55	1.25	1.38	1.51

		Absolute deposition [μL/cm^2]					
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00048	0.00113	0.00195	0.00089	0.00084	0.00106
2	9.6	0.00021	0.00291	0.00040	0.00037	0.00030	0.00084
3	9.1	0.00018	0.00090	0.00065	0.00050	0.00054	0.00055
4	8.6	0.00088	0.00137	0.00045	0.00043	0.00142	0.00091
5	8.1	0.00034	0.00114	0.00069	0.00100	0.00116	0.00087
6	7.6	0.00038	0.00019	0.00086	0.00089	0.00072	0.00061
7	7.1	0.00073	0.00041	0.00057	0.00156	0.00079	0.00081
8	6.6	0.00529	0.00063	0.00082	0.00097	0.00137	0.00182
9	6.1	0.00053	0.00082	0.00083	0.00107	0.00200	0.00105
10	5.6	0.00027	0.00055	0.00075	0.00138	0.00098	0.00079
11	5.1	0.00171	0.00081	0.00148	0.00122	0.00121	0.00128
12	4.6	0.00094	0.00124	0.00126	0.00079	0.00129	0.00110
13	4.1	0.00061	0.00083	0.00106	0.00046	0.00074	0.00074
14	3.6	0.00099	0.00196	0.00166	0.00224	0.00108	0.00159
15	3.1	0.00366	0.00435	0.00270	0.00129	0.00199	0.00280
16	2.6	0.00678	0.00850	0.00701	0.00321	0.00392	0.00588
17	2.1	0.00964	0.01555	0.01089	0.01216	0.01486	0.01262
18	1.6	0.01054	0.01560	0.00817	0.00846	0.01453	0.01146
19	1.1	0.01079	0.01385	0.01411	0.00837	0.00865	0.01115
20	0.6	0.01713	0.03389	0.02563	0.01899	0.01361	0.02185

DG 110.04		Height	50 cm	Spacing	50 cm	Speed	2 m/s
				% deposition			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.16%	0.03%	0.05%	0.08%	0.11%	0.09%
2	9.6	0.08%	0.08%	0.07%	0.06%	0.10%	0.08%
3	9.1	0.12%	0.10%	0.08%	0.07%	0.12%	0.10%
4	8.6	0.13%	0.08%	0.14%	0.14%	0.19%	0.14%
5	8.1	0.15%	0.08%	0.14%	0.09%	0.28%	0.15%
6	7.6	0.20%	0.07%	0.25%	0.17%	0.18%	0.18%
7	7.1	0.27%	0.15%	0.22%	0.15%	0.46%	0.25%
8	6.6	0.18%	0.32%	0.22%	0.12%	0.37%	0.24%
9	6.1	0.25%	0.24%	0.47%	0.21%	0.36%	0.31%
10	5.6	0.32%	0.25%	0.48%	0.22%	0.20%	0.29%
11	5.1	0.41%	0.79%	0.68%	0.53%	0.35%	0.55%
12	4.6	0.62%	0.86%	1.03%	0.48%	0.84%	0.77%
13	4.1	0.29%	1.26%	0.45%	0.33%	0.89%	0.64%
14	3.6	0.51%	0.95%	0.22%	0.56%	0.65%	0.58%
15	3.1	0.39%	2.49%	0.31%	0.81%	1.12%	1.02%
16	2.6	0.65%	1.32%	1.00%	1.78%	0.99%	1.15%
17	2.1	0.77%	1.96%	1.09%	1.31%	2.35%	1.50%
18	1.6	1.22%	2.44%	1.27%	1.18%	3.45%	1.91%
19	1.1	2.24%	1.55%	2.12%	1.04%	2.01%	1.79%
20	0.6	2.75%	3.32%	2.48%	1.98%	2.15%	2.53%
	Sum total	11.71%	18.34%	12.77%	11.30%	17.17%	14.26%
	DPV	11.71	18.34	12.77	11.30	17.17	14.26

		Absolute deposition [µL/cm^2]					
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00386	0.00087	0.00132	0.00187	0.00296	0.00218
2	9.6	0.00203	0.00209	0.00160	0.00148	0.00251	0.00194
3	9.1	0.00304	0.00247	0.00189	0.00166	0.00324	0.00246
4	8.6	0.00325	0.00212	0.00332	0.00342	0.00484	0.00339
5	8.1	0.00365	0.00206	0.00338	0.00220	0.00724	0.00370
6	7.6	0.00498	0.00179	0.00612	0.00427	0.00477	0.00438
7	7.1	0.00658	0.00383	0.00528	0.00376	0.01205	0.00630
8	6.6	0.00442	0.00826	0.00527	0.00288	0.00975	0.00612
9	6.1	0.00624	0.00604	0.01136	0.00514	0.00948	0.00765
10	5.6	0.00779	0.00637	0.01151	0.00534	0.00523	0.00725
11	5.1	0.01009	0.01999	0.01649	0.01320	0.00904	0.01376
12	4.6	0.01540	0.02193	0.02486	0.01196	0.02194	0.01922
13	4.1	0.00712	0.03195	0.01092	0.00832	0.02331	0.01632
14	3.6	0.01257	0.02422	0.00526	0.01384	0.01708	0.01460
15	3.1	0.00957	0.06334	0.00749	0.02011	0.02923	0.02595
16	2.6	0.01596	0.03364	0.02425	0.04425	0.02579	0.02878
17	2.1	0.01903	0.04978	0.02642	0.03257	0.06147	0.03785
18	1.6	0.03011	0.06217	0.03076	0.02933	0.09012	0.04850
19	1.1	0.05518	0.03952	0.05117	0.02595	0.05249	0.04486
20	0.6	0.06771	0.08445	0.05991	0.04916	0.05608	0.06346

DG 110.04		Height	30 cm	Spacing	25 cm	Speed	4 m/s
				% deposition			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.13%	0.04%	0.02%	0.02%	0.02%	0.05%
2	9.6	0.10%	0.05%	0.02%	0.04%	0.04%	0.05%
3	9.1	0.08%	0.12%	0.03%	0.12%	0.12%	0.09%
4	8.6	0.07%	0.09%	0.15%	0.09%	0.09%	0.10%
5	8.1	0.07%	0.06%	0.20%	0.09%	0.09%	0.10%
6	7.6	0.06%	0.09%	0.11%	0.07%	0.07%	0.08%
7	7.1	0.10%	0.09%	0.08%	0.04%	0.04%	0.07%
8	6.6	0.10%	0.11%	0.09%	0.03%	0.03%	0.07%
9	6.1	0.11%	0.15%	0.09%	0.21%	0.21%	0.15%
10	5.6	0.18%	0.17%	0.10%	0.27%	0.27%	0.20%
11	5.1	0.38%	0.33%	0.18%	0.22%	0.22%	0.27%
12	4.6	0.24%	0.26%	0.11%	0.33%	0.33%	0.25%
13	4.1	0.19%	0.29%	0.24%	0.33%	0.33%	0.28%
14	3.6	0.25%	0.30%	0.31%	0.38%	0.38%	0.33%
15	3.1	0.36%	0.45%	0.35%	0.47%	0.47%	0.42%
16	2.6	0.54%	0.50%	0.49%	0.54%	0.54%	0.52%
17	2.1	0.78%	0.95%	0.66%	0.58%	0.58%	0.71%
18	1.6	0.75%	0.71%	0.58%	0.81%	0.81%	0.74%
19	1.1	0.88%	0.82%	0.59%	0.78%	0.78%	0.77%
20	0.6	0.77%	1.00%	0.78%	0.97%	0.97%	0.90%
	Sum total	6.15%	6.58%	5.18%	6.41%	6.41%	6.14%
	DPV	6.15	6.58	5.18	6.41	6.41	6.14

			Absolute deposition [µL/cm^2]				
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00331	0.00108	0.00060	0.00055	0.00077	0.00126
2	9.6	0.00245	0.00134	0.00052	0.00087	0.00104	0.00124
3	9.1	0.00187	0.00308	0.00084	0.00296	0.00096	0.00194
4	8.6	0.00181	0.00229	0.00372	0.00225	0.00083	0.00218
5	8.1	0.00174	0.00143	0.00489	0.00221	0.00056	0.00217
6	7.6	0.00151	0.00218	0.00276	0.00170	0.00102	0.00183
7	7.1	0.00241	0.00238	0.00195	0.00102	0.00151	0.00185
8	6.6	0.00200	0.00266	0.00221	0.00075	0.00349	0.00222
9	6.1	0.00269	0.00385	0.00225	0.00517	0.00308	0.00341
10	5.6	0.00448	0.00429	0.00259	0.00655	0.00340	0.00426
11	5.1	0.00940	0.00817	0.00446	0.00544	0.00767	0.00703
12	4.6	0.00589	0.00640	0.00263	0.00821	0.00484	0.00559
13	4.1	0.00483	0.00730	0.00588	0.00815	0.00498	0.00623
14	3.6	0.00631	0.00739	0.00768	0.00946	0.00609	0.00739
15	3.1	0.00895	0.01114	0.00869	0.01162	0.00650	0.00938
16	2.6	0.01341	0.01259	0.01224	0.01319	0.00844	0.01197
17	2.1	0.01924	0.02367	0.01624	0.01433	0.01362	0.01742
18	1.6	0.01872	0.01786	0.01442	0.02001	0.00751	0.01570
19	1.1	0.02186	0.02046	0.01455	0.01930	0.01568	0.01837
20	0.6	0.01907	0.02513	0.01926	0.02390	0.02007	0.02148

DG 110.04		Height	50 cm	Spacing	50 cm	Speed	4 m/s
				% deposition			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.49%	0.56%	0.57%	0.96%	0.51%	0.62%
2	9.6	0.76%	0.63%	0.54%	0.33%	0.86%	0.62%
3	9.1	0.76%	0.48%	0.56%	0.46%	0.79%	0.61%
4	8.6	0.67%	0.95%	1.31%	0.82%	1.10%	0.97%
5	8.1	0.85%	1.02%	1.40%	0.38%	0.91%	0.91%
6	7.6	0.69%	0.95%	1.64%	1.20%	1.24%	1.15%
7	7.1	1.01%	0.89%	1.03%	0.81%	0.92%	0.93%
8	6.6	0.59%	1.40%	0.60%	1.17%	0.83%	0.92%
9	6.1	0.86%	1.18%	0.48%	0.87%	0.89%	0.86%
10	5.6	1.03%	1.22%	1.24%	1.22%	1.31%	1.21%
11	5.1	1.56%	1.45%	2.37%	1.71%	1.45%	1.71%
12	4.6	1.58%	1.07%	1.87%	1.61%	1.41%	1.51%
13	4.1	1.60%	1.28%	1.52%	1.78%	2.01%	1.64%
14	3.6	1.61%	1.21%	1.42%	1.36%	1.56%	1.43%
15	3.1	1.82%	1.15%	1.68%	1.74%	1.36%	1.55%
16	2.6	2.05%	1.54%	2.02%	2.92%	2.61%	2.23%
17	2.1	3.69%	2.31%	2.79%	3.18%	2.30%	2.85%
18	1.6	4.46%	2.28%	3.65%	3.21%	3.49%	3.42%
19	1.1	4.01%	3.15%	3.98%	4.31%	3.45%	3.78%
20	0.6	3.59%	3.78%	3.99%	3.93%	4.02%	3.86%
	Sum total	33.67%	28.52%	34.66%	33.99%	33.01%	32.77%
	DPV	33.67	28.52	34.66	33.99	33.01	32.77

		Absolute deposition [μL/cm^2]					
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00587	0.00681	0.00676	0.01115	0.00593	0.00730
2	9.6	0.00904	0.00767	0.00633	0.00381	0.01003	0.00737
3	9.1	0.00906	0.00584	0.00661	0.00537	0.00917	0.00721
4	8.6	0.00801	0.01155	0.01552	0.00950	0.01285	0.01149
5	8.1	0.01005	0.01233	0.01651	0.00439	0.01056	0.01077
6	7.6	0.00820	0.01150	0.01943	0.01390	0.01449	0.01350
7	7.1	0.01196	0.01079	0.01223	0.00937	0.01068	0.01101
8	6.6	0.00700	0.01704	0.00705	0.01353	0.00967	0.01086
9	6.1	0.01016	0.01435	0.00563	0.01011	0.01037	0.01012
10	5.6	0.01228	0.01485	0.01472	0.01411	0.01519	0.01423
11	5.1	0.01850	0.01760	0.02797	0.01977	0.01685	0.02014
12	4.6	0.01874	0.01302	0.02208	0.01862	0.01644	0.01778
13	4.1	0.01903	0.01559	0.01802	0.02060	0.02336	0.01932
14	3.6	0.01912	0.01469	0.01680	0.01573	0.01813	0.01689
15	3.1	0.02164	0.01396	0.01989	0.02008	0.01586	0.01828
16	2.6	0.02441	0.01874	0.02391	0.03373	0.03040	0.02624
17	2.1	0.04386	0.02807	0.03294	0.03672	0.02673	0.03367
18	1.6	0.05298	0.02766	0.04313	0.03716	0.04064	0.04032
19	1.1	0.04761	0.03822	0.04709	0.04986	0.04016	0.04459
20	0.6	0.04269	0.04591	0.04720	0.04539	0.04677	0.04559

IDN 120.03		Height	30 cm	Spacing	25 cm	Speed	2 m/s
				% deposition			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00%	0.02%	0.02%	0.04%	0.02%	0.02%
2	9.6	0.00%	0.01%	0.01%	0.05%	0.01%	0.02%
3	9.1	0.00%	0.01%	0.00%	0.02%	0.00%	0.01%
4	8.6	0.00%	0.02%	0.01%	0.03%	0.01%	0.01%
5	8.1	0.00%	0.04%	0.00%	0.01%	0.01%	0.01%
6	7.6	0.00%	0.01%	0.00%	0.01%	0.00%	0.00%
7	7.1	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%
8	6.6	0.00%	0.01%	0.00%	0.05%	0.01%	0.01%
9	6.1	0.00%	0.01%	0.00%	0.01%	0.00%	0.00%
10	5.6	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%
11	5.1	0.00%	0.01%	0.01%	0.02%	0.02%	0.01%
12	4.6	0.00%	0.01%	0.01%	0.01%	0.01%	0.01%
13	4.1	0.00%	0.02%	0.01%	0.01%	0.01%	0.01%
14	3.6	0.00%	0.02%	0.01%	0.02%	0.01%	0.01%
15	3.1	0.01%	0.02%	0.02%	0.01%	0.01%	0.01%
16	2.6	0.02%	0.03%	0.02%	0.04%	0.03%	0.03%
17	2.1	0.17%	0.20%	0.12%	0.04%	0.02%	0.11%
18	1.6	0.03%	0.07%	0.07%	0.06%	0.04%	0.05%
19	1.1	0.06%	0.09%	0.08%	0.05%	0.05%	0.07%
20	0.6	0.07%	0.12%	0.09%	0.16%	0.12%	0.11%
	Sum total	0.37%	0.74%	0.49%	0.63%	0.39%	0.52%
	DPV	0.37	0.74	0.49	0.63	0.39	0.52

				Absolute deposition [µL/cm^2]			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00013	0.00076	0.00063	0.00127	0.00060	0.00068
2	9.6	0.00012	0.00051	0.00035	0.00160	0.00026	0.00057
3	9.1	-0.00002	0.00048	0.00006	0.00072	0.00013	0.00027
4	8.6	0.00001	0.00089	0.00022	0.00101	0.00026	0.00048
5	8.1	-0.00002	0.00164	0.00014	0.00029	0.00033	0.00048
6	7.6	0.00005	0.00041	-0.00003	0.00020	0.00018	0.00016
7	7.1	-0.00008	0.00014	0.00010	0.00025	0.00013	0.00011
8	6.6	0.00006	0.00035	0.00015	0.00160	0.00020	0.00047
9	6.1	-0.00011	0.00042	0.00002	0.00036	-0.00002	0.00014
10	5.6	-0.00003	0.00008	0.00016	0.00027	0.00017	0.00013
11	5.1	0.00007	0.00028	0.00050	0.00084	0.00074	0.00049
12	4.6	0.00008	0.00027	0.00050	0.00041	0.00027	0.00030
13	4.1	0.00006	0.00055	0.00018	0.00028	0.00046	0.00031
14	3.6	0.00014	0.00067	0.00047	0.00056	0.00054	0.00048
15	3.1	0.00038	0.00076	0.00054	0.00045	0.00036	0.00050
16	2.6	0.00068	0.00108	0.00080	0.00156	0.00094	0.00101
17	2.1	0.00636	0.00742	0.00422	0.00145	0.00085	0.00406
18	1.6	0.00106	0.00263	0.00246	0.00195	0.00167	0.00195
19	1.1	0.00209	0.00339	0.00304	0.00169	0.00192	0.00243
20	0.6	0.00269	0.00442	0.00316	0.00550	0.00460	0.00407

IDN 120.03		Height	50 cm	Spacing	50 cm	Speed	2 m/s
				% deposition			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.02%	0.01%	0.02%	0.03%	0.01%	0.02%
2	9.6	0.02%	0.01%	0.01%	0.02%	0.02%	0.02%
3	9.1	0.00%	0.01%	0.05%	0.04%	0.01%	0.02%
4	8.6	0.02%	0.01%	0.01%	0.03%	0.03%	0.02%
5	8.1	0.01%	0.01%	0.02%	0.02%	0.02%	0.01%
6	7.6	0.01%	0.04%	0.01%	0.04%	0.02%	0.02%
7	7.1	0.01%	0.01%	0.01%	0.02%	0.01%	0.01%
8	6.6	0.01%	0.00%	0.00%	0.02%	0.05%	0.02%
9	6.1	0.01%	0.02%	0.03%	0.01%	0.01%	0.02%
10	5.6	0.01%	0.02%	0.03%	0.01%	0.02%	0.02%
11	5.1	0.02%	0.01%	0.03%	0.01%	0.01%	0.02%
12	4.6	0.01%	0.01%	0.02%	0.01%	0.06%	0.02%
13	4.1	0.01%	0.02%	0.07%	0.02%	0.06%	0.04%
14	3.6	0.01%	0.03%	0.06%	0.05%	0.04%	0.04%
15	3.1	0.03%	0.06%	0.06%	0.05%	0.03%	0.05%
16	2.6	0.04%	0.05%	0.06%	0.09%	0.05%	0.06%
17	2.1	0.08%	0.16%	0.28%	0.10%	0.13%	0.15%
18	1.6	0.19%	0.27%	0.12%	0.14%	0.14%	0.17%
19	1.1	0.25%	0.24%	0.32%	0.15%	0.24%	0.24%
20	0.6	0.37%	0.32%	0.47%	0.28%	0.31%	0.35%
	Sum total	1.11%	1.32%	1.69%	1.16%	1.27%	1.31%
	DPV	1.11	1.32	1.69	1.16	1.27	1.31

				Absolute deposition [µL/cm^2]			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00037	0.00027	0.00052	0.00070	0.00033	0.00044
2	9.6	0.00038	0.00013	0.00034	0.00048	0.00046	0.00036
3	9.1	0.00011	0.00030	0.00123	0.00103	0.00015	0.00056
4	8.6	0.00054	0.00034	0.00035	0.00081	0.00068	0.00054
5	8.1	0.00012	0.00027	0.00039	0.00049	0.00039	0.00033
6	7.6	0.00028	0.00089	0.00024	0.00097	0.00040	0.00055
7	7.1	0.00019	0.00021	0.00028	0.00053	0.00032	0.00031
8	6.6	0.00000	0.00003	0.00004	0.00045	0.00109	0.00032
9	6.1	0.00020	0.00059	0.00082	0.00023	0.00032	0.00043
10	5.6	0.00019	0.00044	0.00066	0.00029	0.00056	0.00043
11	5.1	0.00048	0.00029	0.00069	0.00026	0.00019	0.00038
12	4.6	0.00025	0.00029	0.00056	0.00030	0.00141	0.00056
13	4.1	0.00014	0.00038	0.00168	0.00055	0.00141	0.00083
14	3.6	0.00031	0.00079	0.00130	0.00125	0.00094	0.00092
15	3.1	0.00067	0.00138	0.00151	0.00115	0.00077	0.00109
16	2.6	0.00107	0.00124	0.00132	0.00206	0.00123	0.00138
17	2.1	0.00182	0.00392	0.00665	0.00246	0.00299	0.00357
18	1.6	0.00456	0.00655	0.00281	0.00325	0.00322	0.00408
19	1.1	0.00595	0.00581	0.00748	0.00369	0.00553	0.00569
20	0.6	0.00872	0.00762	0.01097	0.00663	0.00729	0.00825

IDN 120.03		Height	30 cm	Spacing	25 cm	Speed	4 m/s
			% deposition				
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.03%	0.02%	0.02%	0.03%	0.01%	0.02%
2	9.6	0.01%	0.01%	0.02%	0.02%	0.00%	0.01%
3	9.1	0.05%	0.01%	0.02%	0.03%	0.02%	0.03%
4	8.6	0.07%	0.06%	0.02%	0.02%	0.02%	0.04%
5	8.1	0.05%	0.02%	0.02%	0.02%	0.02%	0.03%
6	7.6	0.02%	0.01%	0.02%	0.04%	0.03%	0.02%
7	7.1	0.02%	0.01%	0.01%	0.02%	0.02%	0.02%
8	6.6	0.05%	0.01%	0.02%	0.02%	0.01%	0.02%
9	6.1	0.02%	0.01%	0.02%	0.03%	0.02%	0.02%
10	5.6	0.04%	0.02%	0.03%	0.03%	0.03%	0.03%
11	5.1	0.06%	0.04%	0.03%	0.02%	0.04%	0.04%
12	4.6	0.02%	0.03%	0.02%	0.03%	0.04%	0.03%
13	4.1	0.02%	0.03%	0.05%	0.03%	0.02%	0.03%
14	3.6	0.04%	0.03%	0.03%	0.09%	0.04%	0.05%
15	3.1	0.06%	0.07%	0.07%	0.09%	0.05%	0.07%
16	2.6	0.12%	0.07%	0.12%	0.06%	0.08%	0.09%
17	2.1	0.13%	0.13%	0.10%	0.08%	0.12%	0.11%
18	1.6	0.13%	0.13%	0.11%	0.14%	0.13%	0.13%
19	1.1	0.10%	0.14%	0.16%	0.12%	0.18%	0.14%
20	0.6	0.10%	0.20%	0.27%	0.16%	0.17%	0.18%
	Sum total	1.14%	1.05%	1.16%	1.10%	1.06%	1.10%
	DPV	1.14	1.05	1.16	1.10	1.06	1.10

			Absolute deposition [μL/cm^2]				
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00074	0.00042	0.00052	0.00074	0.00023	0.00053
2	9.6	0.00021	0.00021	0.00038	0.00052	0.00006	0.00028
3	9.1	0.00110	0.00029	0.00037	0.00064	0.00047	0.00057
4	8.6	0.00149	0.00124	0.00032	0.00043	0.00049	0.00079
5	8.1	0.00105	0.00053	0.00035	0.00049	0.00038	0.00056
6	7.6	0.00047	0.00028	0.00035	0.00084	0.00057	0.00050
7	7.1	0.00049	0.00013	0.00030	0.00051	0.00031	0.00035
8	6.6	0.00102	0.00020	0.00035	0.00047	0.00029	0.00046
9	6.1	0.00049	0.00027	0.00049	0.00067	0.00045	0.00047
10	5.6	0.00087	0.00046	0.00069	0.00055	0.00054	0.00062
11	5.1	0.00134	0.00083	0.00068	0.00042	0.00082	0.00082
12	4.6	0.00047	0.00063	0.00049	0.00074	0.00080	0.00063
13	4.1	0.00047	0.00061	0.00109	0.00068	0.00044	0.00066
14	3.6	0.00078	0.00067	0.00072	0.00190	0.00088	0.00099
15	3.1	0.00141	0.00152	0.00141	0.00200	0.00103	0.00148
16	2.6	0.00266	0.00158	0.00241	0.00125	0.00162	0.00190
17	2.1	0.00296	0.00273	0.00201	0.00172	0.00249	0.00238
18	1.6	0.00292	0.00269	0.00234	0.00307	0.00266	0.00273
19	1.1	0.00216	0.00300	0.00330	0.00248	0.00369	0.00292
20	0.6	0.00220	0.00435	0.00551	0.00354	0.00346	0.00381

IDN 120.03		Height	50 cm	Spacing	50 cm	Speed	4 m/s
				% deposition			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.07%	0.13%	0.14%	0.09%	0.07%	0.10%
2	9.6	0.08%	0.16%	0.03%	0.04%	0.06%	0.07%
3	9.1	0.07%	0.19%	0.09%	0.04%	0.09%	0.10%
4	8.6	0.08%	0.19%	0.08%	0.10%	0.11%	0.11%
5	8.1	0.08%	0.16%	0.16%	0.15%	0.16%	0.14%
6	7.6	0.08%	0.21%	0.09%	0.05%	0.16%	0.12%
7	7.1	0.09%	0.22%	0.09%	0.09%	0.15%	0.13%
8	6.6	0.11%	0.12%	0.08%	0.13%	0.10%	0.11%
9	6.1	0.11%	0.18%	0.06%	0.15%	0.11%	0.12%
10	5.6	0.21%	0.19%	0.09%	0.19%	0.17%	0.17%
11	5.1	0.20%	0.28%	0.19%	0.16%	0.17%	0.20%
12	4.6	0.21%	0.25%	0.18%	0.20%	0.27%	0.22%
13	4.1	0.25%	0.30%	0.32%	0.18%	0.26%	0.26%
14	3.6	0.19%	0.24%	0.33%	0.27%	0.40%	0.29%
15	3.1	0.23%	0.23%	0.35%	0.27%	0.41%	0.30%
16	2.6	0.37%	0.37%	0.29%	0.44%	0.40%	0.37%
17	2.1	0.39%	0.55%	0.46%	0.62%	0.39%	0.48%
18	1.6	0.56%	0.70%	0.51%	0.60%	0.63%	0.60%
19	1.1	0.73%	0.62%	0.64%	0.73%	0.64%	0.67%
20	0.6	0.75%	0.65%	0.70%	0.71%	0.63%	0.69%
	Sum total	4.87%	5.95%	4.86%	5.21%	5.40%	5.26%
	DPV	4.87	5.95	4.86	5.21	5.40	5.26

		Absolute deposition [µL/cm^2]					
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00059	0.00119	0.00124	0.00085	0.00067	0.00091
2	9.6	0.00066	0.00139	0.00029	0.00032	0.00050	0.00063
3	9.1	0.00059	0.00167	0.00081	0.00040	0.00086	0.00087
4	8.6	0.00067	0.00170	0.00073	0.00088	0.00102	0.00100
5	8.1	0.00069	0.00144	0.00150	0.00137	0.00144	0.00129
6	7.6	0.00073	0.00191	0.00081	0.00043	0.00145	0.00107
7	7.1	0.00077	0.00192	0.00079	0.00076	0.00138	0.00112
8	6.6	0.00098	0.00103	0.00074	0.00117	0.00096	0.00098
9	6.1	0.00092	0.00163	0.00051	0.00131	0.00104	0.00108
10	5.6	0.00182	0.00167	0.00079	0.00169	0.00158	0.00151
11	5.1	0.00171	0.00252	0.00176	0.00146	0.00156	0.00180
12	4.6	0.00182	0.00223	0.00163	0.00180	0.00244	0.00198
13	4.1	0.00216	0.00269	0.00295	0.00159	0.00237	0.00236
14	3.6	0.00166	0.00214	0.00301	0.00240	0.00369	0.00258
15	3.1	0.00198	0.00204	0.00319	0.00237	0.00372	0.00266
16	2.6	0.00316	0.00329	0.00263	0.00395	0.00362	0.00333
17	2.1	0.00334	0.00487	0.00420	0.00552	0.00352	0.00429
18	1.6	0.00484	0.00621	0.00468	0.00532	0.00578	0.00537
19	1.1	0.00629	0.00556	0.00585	0.00653	0.00584	0.00602
20	0.6	0.00645	0.00583	0.00640	0.00628	0.00577	0.00614

XLTD 110.04		Height	30 cm	Spacing	25 cm	Speed	2 m/s
				% deposition			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%
2	9.6	0.03%	0.00%	0.00%	0.01%	0.00%	0.01%
3	9.1	0.00%	0.00%	-0.01%	0.00%	0.00%	0.00%
4	8.6	0.01%	0.01%	0.01%	0.01%	0.01%	0.01%
5	8.1	0.00%	0.00%	0.00%	0.01%	0.01%	0.00%
6	7.6	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
7	7.1	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%
8	6.6	0.01%	0.00%	0.01%	0.01%	0.00%	0.01%
9	6.1	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%
10	5.6	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%
11	5.1	0.01%	0.02%	0.00%	0.01%	0.00%	0.01%
12	4.6	0.01%	0.02%	0.01%	0.01%	0.02%	0.01%
13	4.1	0.02%	0.02%	0.01%	0.00%	0.01%	0.01%
14	3.6	0.01%	0.02%	0.01%	0.00%	0.01%	0.01%
15	3.1	0.04%	0.04%	0.03%	0.02%	0.02%	0.03%
16	2.6	0.08%	0.06%	0.04%	0.01%	0.03%	0.04%
17	2.1	0.16%	0.30%	0.18%	0.20%	0.14%	0.20%
18	1.6	0.06%	0.08%	0.05%	0.04%	0.07%	0.06%
19	1.1	0.07%	0.08%	0.09%	0.06%	0.10%	0.08%
20	0.6	0.09%	0.06%	0.13%	0.14%	0.16%	0.11%
	Sum total	0.63%	0.72%	0.55%	0.53%	0.56%	0.60%
	DPV	0.63	0.72	0.55	0.53	0.56	0.60

				Absolute deposition [µL/cm^2]			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00090	-0.00021	0.00014	0.00001	-0.00013	0.00014
2	9.6	0.00124	0.00197	0.00090	0.00091	0.00114	0.00123
3	9.1	0.00184	0.00139	0.00103	0.00152	0.00105	0.00137
4	8.6	0.00241	0.00159	0.00065	0.00175	0.00181	0.00164
5	8.1	0.00182	0.00180	0.00129	0.00164	0.00148	0.00161
6	7.6	0.00267	0.00205	0.00198	0.00153	0.00197	0.00204
7	7.1	0.00091	0.00230	0.00134	0.00229	0.00188	0.00174
8	6.6	0.00107	0.00200	0.00290	0.00222	0.00161	0.00196
9	6.1	0.00226	0.00306	0.00304	0.00260	0.00302	0.00279
10	5.6	0.00393	0.00273	0.00321	0.00382	0.00240	0.00322
11	5.1	0.00247	0.00387	0.00305	0.00374	0.00245	0.00312
12	4.6	0.00307	0.00323	0.00392	0.00317	0.00247	0.00317
13	4.1	0.00628	0.00367	0.00377	0.00378	0.00350	0.00420
14	3.6	0.00356	0.00333	0.00353	0.00428	0.00282	0.00351
15	3.1	0.00359	0.00422	0.00365	0.00455	0.00384	0.00397
16	2.6	0.00754	0.00581	0.00605	0.00731	0.00672	0.00669
17	2.1	0.00778	0.00844	0.00686	0.00854	0.00655	0.00764
18	1.6	0.00843	0.00956	0.00916	0.01365	0.00696	0.00955
19	1.1	0.01147	0.01001	0.01207	0.01102	0.00922	0.01076
20	0.6	0.01123	0.01033	0.01131	0.01112	0.01047	0.01089

XLTD 110.04		Height	50 cm	Spacing	50 cm	Speed	2 m/s
				% deposition			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.03%	0.01%	0.03%	0.08%	0.03%	0.03%
2	9.6	0.02%	0.03%	0.01%	0.08%	0.06%	0.04%
3	9.1	0.02%	0.01%	0.01%	0.04%	0.03%	0.02%
4	8.6	0.03%	0.02%	0.03%	0.05%	0.04%	0.03%
5	8.1	0.03%	0.02%	0.02%	0.04%	0.01%	0.02%
6	7.6	0.03%	0.01%	0.02%	0.04%	0.03%	0.03%
7	7.1	0.03%	0.03%	0.06%	0.05%	0.04%	0.04%
8	6.6	0.04%	0.03%	0.07%	0.08%	0.04%	0.05%
9	6.1	0.04%	0.04%	0.06%	0.10%	0.12%	0.07%
10	5.6	0.06%	0.03%	0.04%	0.10%	0.09%	0.06%
11	5.1	0.04%	0.05%	0.02%	0.08%	0.10%	0.06%
12	4.6	0.02%	0.05%	0.09%	0.20%	0.09%	0.09%
13	4.1	0.08%	0.06%	0.16%	0.15%	0.10%	0.11%
14	3.6	0.07%	0.09%	0.15%	0.23%	0.00%	0.11%
15	3.1	0.06%	0.05%	0.07%	0.14%	0.04%	0.07%
16	2.6	0.08%	0.09%	0.10%	0.21%	0.12%	0.12%
17	2.1	0.09%	0.15%	0.16%	0.22%	0.11%	0.15%
18	1.6	0.11%	0.17%	0.12%	0.20%	0.15%	0.15%
19	1.1	0.12%	0.24%	0.17%	0.23%	0.17%	0.19%
20	0.6	0.20%	0.38%	0.26%	0.31%	0.36%	0.30%
	Sum total	1.20%	1.57%	1.64%	2.60%	1.73%	1.75%
	DPV	1.20	1.57	1.64	2.60	1.73	1.75

		Absolute deposition [µL/cm^2]					
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00082	0.00036	0.00071	0.00213	0.00082	0.00097
2	9.6	0.00066	0.00085	0.00038	0.00215	0.00174	0.00115
3	9.1	0.00067	0.00017	0.00030	0.00117	0.00083	0.00063
4	8.6	0.00080	0.00056	0.00075	0.00139	0.00101	0.00090
5	8.1	0.00091	0.00048	0.00053	0.00106	0.00037	0.00067
6	7.6	0.00096	0.00041	0.00066	0.00100	0.00093	0.00079
7	7.1	0.00102	0.00092	0.00165	0.00129	0.00102	0.00118
8	6.6	0.00122	0.00083	0.00199	0.00212	0.00100	0.00143
9	6.1	0.00128	0.00104	0.00159	0.00280	0.00342	0.00203
10	5.6	0.00173	0.00076	0.00114	0.00272	0.00242	0.00175
11	5.1	0.00120	0.00130	0.00067	0.00218	0.00297	0.00167
12	4.6	0.00060	0.00136	0.00246	0.00557	0.00248	0.00249
13	4.1	0.00228	0.00165	0.00465	0.00426	0.00295	0.00316
14	3.6	0.00202	0.00254	0.00423	0.00638	0.01252	0.00554
15	3.1	0.00167	0.00144	0.00187	0.00377	0.00128	0.00201
16	2.6	0.00226	0.00262	0.00294	0.00598	0.00351	0.00346
17	2.1	0.00258	0.00424	0.00451	0.00609	0.00308	0.00410
18	1.6	0.00313	0.00456	0.00330	0.00558	0.00433	0.00418
19	1.1	0.00363	0.00654	0.00476	0.00627	0.00490	0.00522
20	0.6	0.00583	0.01058	0.00726	0.00861	0.01016	0.00849

XLTD 110.04		Height	30 cm	Spacing	25 cm	Speed	4 m/s
				% deposition			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.01%	0.03%	0.03%	0.04%	0.03%	0.03%
2	9.6	0.03%	0.02%	0.02%	0.04%	0.01%	0.02%
3	9.1	0.01%	0.02%	0.02%	0.05%	0.01%	0.02%
4	8.6	0.02%	0.06%	0.02%	0.02%	0.03%	0.03%
5	8.1	0.04%	0.04%	0.02%	0.04%	0.04%	0.04%
6	7.6	0.02%	0.03%	0.04%	0.03%	0.03%	0.03%
7	7.1	0.05%	0.02%	0.03%	0.03%	0.03%	0.03%
8	6.6	0.01%	0.04%	0.02%	0.03%	0.02%	0.02%
9	6.1	0.01%	0.03%	0.02%	0.03%	0.02%	0.02%
10	5.6	0.02%	0.04%	0.03%	0.06%	0.04%	0.04%
11	5.1	0.13%	0.06%	0.05%	0.06%	0.07%	0.07%
12	4.6	0.11%	0.07%	0.08%	0.06%	0.06%	0.08%
13	4.1	0.12%	0.06%	0.05%	0.06%	0.06%	0.07%
14	3.6	0.10%	0.06%	0.05%	0.08%	0.05%	0.07%
15	3.1	0.12%	0.09%	0.09%	0.09%	0.06%	0.09%
16	2.6	0.20%	0.14%	0.14%	0.12%	0.10%	0.14%
17	2.1	0.27%	0.39%	0.23%	0.53%	0.44%	0.37%
18	1.6	0.15%	0.31%	0.14%	0.18%	0.19%	0.19%
19	1.1	0.18%	0.22%	0.17%	0.22%	0.21%	0.20%
20	0.6	0.21%	0.35%	0.27%	0.22%	0.20%	0.25%
	Sum total	1.82%	2.09%	1.52%	1.99%	1.69%	1.82%
	DPV	1.82	2.09	1.52	1.99	1.69	1.82

		Absolute deposition [µL/cm^2]					
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00043	0.00097	0.00082	0.00114	0.00084	0.00084
2	9.6	0.00080	0.00059	0.00065	0.00103	0.00016	0.00064
3	9.1	0.00034	0.00068	0.00067	0.00128	0.00033	0.00066
4	8.6	0.00065	0.00163	0.00054	0.00056	0.00093	0.00086
5	8.1	0.00113	0.00113	0.00063	0.00122	0.00099	0.00102
6	7.6	0.00060	0.00088	0.00125	0.00086	0.00077	0.00087
7	7.1	0.00150	0.00069	0.00088	0.00097	0.00075	0.00096
8	6.6	0.00032	0.00106	0.00053	0.00075	0.00069	0.00067
9	6.1	0.00029	0.00094	0.00046	0.00092	0.00065	0.00065
10	5.6	0.00061	0.00113	0.00096	0.00168	0.00118	0.00111
11	5.1	0.00377	0.00163	0.00144	0.00181	0.00184	0.00210
12	4.6	0.00332	0.00183	0.00221	0.00179	0.00162	0.00215
13	4.1	0.00342	0.00171	0.00136	0.00165	0.00177	0.00198
14	3.6	0.00299	0.00166	0.00130	0.00220	0.00150	0.00193
15	3.1	0.00335	0.00261	0.00242	0.00240	0.00180	0.00252
16	2.6	0.00579	0.00391	0.00386	0.00327	0.00268	0.00390
17	2.1	0.00783	0.01102	0.00649	0.01500	0.01227	0.01052
18	1.6	0.00429	0.00879	0.00393	0.00506	0.00524	0.00546
19	1.1	0.00517	0.00606	0.00466	0.00621	0.00579	0.00558
20	0.6	0.00620	0.00974	0.00754	0.00608	0.00553	0.00702

XLTD 110.04		Height	50 cm	Spacing	50 cm	Speed	4 m/s
				% deposition			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.14%	0.09%	0.07%	0.05%	0.06%	0.08%
2	9.6	0.09%	0.15%	0.07%	0.07%	0.09%	0.09%
3	9.1	0.14%	0.11%	0.08%	0.12%	0.08%	0.10%
4	8.6	0.18%	0.12%	0.05%	0.14%	0.15%	0.13%
5	8.1	0.14%	0.14%	0.09%	0.13%	0.12%	0.12%
6	7.6	0.20%	0.16%	0.14%	0.12%	0.16%	0.16%
7	7.1	0.07%	0.18%	0.10%	0.18%	0.15%	0.13%
8	6.6	0.08%	0.15%	0.21%	0.17%	0.13%	0.15%
9	6.1	0.17%	0.23%	0.22%	0.20%	0.24%	0.21%
10	5.6	0.29%	0.21%	0.24%	0.30%	0.19%	0.24%
11	5.1	0.18%	0.30%	0.22%	0.29%	0.20%	0.24%
12	4.6	0.23%	0.25%	0.29%	0.24%	0.20%	0.24%
13	4.1	0.47%	0.28%	0.28%	0.29%	0.28%	0.32%
14	3.6	0.27%	0.25%	0.26%	0.33%	0.23%	0.27%
15	3.1	0.27%	0.32%	0.27%	0.35%	0.31%	0.30%
16	2.6	0.56%	0.44%	0.44%	0.56%	0.54%	0.51%
17	2.1	0.58%	0.64%	0.50%	0.66%	0.53%	0.58%
18	1.6	0.63%	0.73%	0.67%	1.05%	0.56%	0.73%
19	1.1	0.86%	0.76%	0.88%	0.85%	0.74%	0.82%
20	0.6	0.84%	0.79%	0.83%	0.86%	0.84%	0.83%
	Sum total	6.38%	6.30%	5.91%	6.95%	5.80%	6.27%
	DPV	6.38	6.30	5.91	6.95	5.80	6.27

		Absolute deposition [μL/cm^2]					
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00185	0.00123	0.00100	0.00059	0.00077	0.00109
2	9.6	0.00124	0.00197	0.00090	0.00091	0.00114	0.00123
3	9.1	0.00184	0.00139	0.00103	0.00152	0.00105	0.00137
4	8.6	0.00241	0.00159	0.00065	0.00175	0.00181	0.00164
5	8.1	0.00182	0.00180	0.00129	0.00164	0.00148	0.00161
6	7.6	0.00267	0.00205	0.00198	0.00153	0.00197	0.00204
7	7.1	0.00091	0.00230	0.00134	0.00229	0.00188	0.00174
8	6.6	0.00107	0.00200	0.00290	0.00222	0.00161	0.00196
9	6.1	0.00226	0.00306	0.00304	0.00260	0.00302	0.00279
10	5.6	0.00393	0.00273	0.00321	0.00382	0.00240	0.00322
11	5.1	0.00247	0.00387	0.00305	0.00374	0.00245	0.00312
12	4.6	0.00307	0.00323	0.00392	0.00317	0.00247	0.00317
13	4.1	0.00628	0.00367	0.00377	0.00378	0.00350	0.00420
14	3.6	0.00356	0.00333	0.00353	0.00428	0.00282	0.00351
15	3.1	0.00359	0.00422	0.00365	0.00455	0.00384	0.00397
16	2.6	0.00754	0.00581	0.00605	0.00731	0.00672	0.00669
17	2.1	0.00778	0.00844	0.00686	0.00854	0.00655	0.00764
18	1.6	0.00843	0.00956	0.00916	0.01365	0.00696	0.00955
19	1.1	0.01147	0.01001	0.01207	0.01102	0.00922	0.01076
20	0.6	0.01123	0.01033	0.01131	0.01112	0.01047	0.01089

AIXR 110.04		Height	30 cm	Spacing	25 cm	Speed	2 m/s
				% deposition			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.02%	0.03%	0.03%	0.04%	0.01%	0.03%
2	9.6	0.01%	0.01%	0.02%	0.03%	0.00%	0.02%
3	9.1	0.00%	0.01%	0.02%	0.04%	0.00%	0.01%
4	8.6	0.01%	0.01%	0.02%	0.01%	0.00%	0.01%
5	8.1	0.00%	0.01%	0.02%	0.03%	0.01%	0.01%
6	7.6	0.00%	0.02%	0.01%	0.00%	0.01%	0.01%
7	7.1	0.00%	0.01%	0.01%	0.00%	0.03%	0.01%
8	6.6	0.01%	0.01%	0.03%	0.00%	0.00%	0.01%
9	6.1	0.00%	0.02%	0.07%	0.00%	0.00%	0.02%
10	5.6	0.00%	0.02%	0.03%	0.01%	0.01%	0.01%
11	5.1	0.00%	0.02%	0.02%	0.01%	0.01%	0.01%
12	4.6	0.00%	0.01%	0.02%	0.00%	0.01%	0.01%
13	4.1	0.01%	0.00%	0.11%	0.00%	0.00%	0.02%
14	3.6	0.01%	0.02%	0.01%	0.01%	0.00%	0.01%
15	3.1	0.01%	0.03%	0.02%	0.01%	0.02%	0.02%
16	2.6	0.02%	0.04%	0.04%	0.02%	0.06%	0.04%
17	2.1	0.03%	0.04%	0.07%	0.02%	0.04%	0.04%
18	1.6	0.02%	0.07%	0.05%	0.02%	0.03%	0.04%
19	1.1	0.05%	0.11%	0.07%	0.07%	0.03%	0.06%
20	0.6	0.08%	0.08%	0.13%	0.06%	0.07%	0.09%
	Sum total	0.28%	0.54%	0.78%	0.39%	0.33%	0.47%
	DPV	0.28	0.54	0.78	0.39	0.33	0.47

				Absolute deposition [μL/cm^2]			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00086	0.00129	0.00131	0.00163	0.00023	0.00106
2	9.6	0.00051	0.00034	0.00082	0.00104	0.00018	0.00058
3	9.1	0.00011	0.00020	0.00077	0.00144	-0.00017	0.00047
4	8.6	0.00036	0.00025	0.00064	0.00046	-0.00007	0.00033
5	8.1	0.00013	0.00053	0.00061	0.00105	0.00032	0.00053
6	7.6	-0.00001	0.00062	0.00028	0.00014	0.00022	0.00025
7	7.1	-0.00010	0.00035	0.00041	0.00003	0.00106	0.00035
8	6.6	0.00033	0.00039	0.00110	0.00010	0.00009	0.00040
9	6.1	0.00005	0.00060	0.00276	0.00001	0.00009	0.00070
10	5.6	-0.00005	0.00075	0.00106	0.00045	0.00042	0.00053
11	5.1	0.00009	0.00057	0.00070	0.00022	0.00035	0.00039
12	4.6	0.00009	0.00029	0.00060	0.00005	0.00025	0.00026
13	4.1	0.00024	0.00018	0.00403	-0.00004	-0.00003	0.00088
14	3.6	0.00020	0.00062	0.00041	0.00029	0.00008	0.00032
15	3.1	0.00035	0.00099	0.00060	0.00033	0.00070	0.00060
16	2.6	0.00059	0.00144	0.00155	0.00083	0.00221	0.00132
17	2.1	0.00098	0.00150	0.00246	0.00090	0.00147	0.00146
18	1.6	0.00075	0.00276	0.00185	0.00085	0.00127	0.00150
19	1.1	0.00209	0.00411	0.00248	0.00268	0.00096	0.00246
20	0.6	0.00320	0.00299	0.00487	0.00244	0.00269	0.00324

AIXR 110.04		Height	50 cm	Spacing	50 cm	Speed	2 m/s
				% deposition			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.02%	0.02%	0.04%	0.02%	0.02%	0.02%
2	9.6	0.02%	0.02%	0.02%	0.01%	0.02%	0.02%
3	9.1	0.02%	0.02%	0.02%	0.00%	0.01%	0.01%
4	8.6	0.03%	0.04%	0.05%	0.00%	0.03%	0.03%
5	8.1	0.03%	0.01%	0.07%	0.02%	0.02%	0.03%
6	7.6	0.02%	0.02%	0.04%	0.01%	0.01%	0.02%
7	7.1	0.00%	0.01%	0.01%	0.01%	0.01%	0.01%
8	6.6	0.02%	0.03%	0.02%	0.02%	0.03%	0.03%
9	6.1	0.04%	0.03%	0.01%	0.05%	0.01%	0.03%
10	5.6	0.02%	0.03%	0.03%	0.02%	0.02%	0.02%
11	5.1	0.03%	0.04%	0.02%	0.02%	0.02%	0.02%
12	4.6	0.03%	0.03%	0.05%	0.02%	0.01%	0.03%
13	4.1	0.07%	0.03%	0.05%	0.03%	0.04%	0.04%
14	3.6	0.05%	0.06%	0.10%	0.06%	0.04%	0.06%
15	3.1	0.06%	0.07%	0.05%	0.08%	0.06%	0.06%
16	2.6	0.06%	0.06%	0.07%	0.07%	0.10%	0.07%
17	2.1	0.11%	0.18%	0.11%	0.22%	0.13%	0.15%
18	1.6	0.17%	0.19%	0.16%	0.16%	0.18%	0.17%
19	1.1	0.47%	0.39%	0.41%	0.38%	0.27%	0.38%
20	0.6	0.75%	0.52%	0.47%	0.50%	0.48%	0.54%
	Sum total	2.02%	1.78%	1.81%	1.70%	1.50%	1.76%
	DPV	2.02	1.78	1.81	1.70	1.50	1.76

Absolute deposition [µL/cm^2]

Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00029	0.00036	0.00071	0.00034	0.00047	0.00044
2	9.6	0.00039	0.00032	0.00032	0.00029	0.00033	0.00033
3	9.1	0.00033	0.00033	0.00042	0.00006	0.00021	0.00027
4	8.6	0.00053	0.00084	0.01804	0.00007	0.00053	0.00400
5	8.1	0.00044	0.00029	0.00134	0.00038	0.00032	0.00055
6	7.6	0.00029	0.00035	0.00071	0.00024	0.00016	0.00035
7	7.1	0.00002	0.00012	0.00026	0.00018	0.00025	0.00016
8	6.6	0.00039	0.00051	0.00039	0.00047	0.00069	0.00049
9	6.1	0.00067	0.00055	0.00024	0.00104	0.00024	0.00055
10	5.6	0.00025	0.00065	0.00065	0.00031	0.00044	0.00046
11	5.1	0.00045	0.00071	0.00041	0.00040	0.00040	0.00047
12	4.6	0.00053	0.00053	0.00097	0.00044	0.00024	0.00054
13	4.1	0.00110	0.00067	0.00097	0.00063	0.00074	0.00082
14	3.6	0.00075	0.00117	0.00184	0.00116	0.00083	0.00115
15	3.1	0.00089	0.00137	0.00103	0.00164	0.00113	0.00121
16	2.6	0.00099	0.00114	0.00127	0.00138	0.00196	0.00135
17	2.1	0.00180	0.00354	0.00216	0.00459	0.00275	0.00296
18	1.6	0.00271	0.00376	0.00296	0.00328	0.00371	0.00328
19	1.1	0.00748	0.00784	0.00779	0.00775	0.00546	0.00726
20	0.6	0.01209	0.01044	0.00882	0.01039	0.00970	0.01029

AIXR 110.04		Height	30 cm	Spacing	25 cm	Speed	4 m/s
				% deposition			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.02%	0.06%	0.04%	0.04%	0.02%	0.03%
2	9.6	-0.01%	0.02%	0.00%	0.03%	0.02%	0.01%
3	9.1	0.00%	0.00%	0.02%	0.02%	0.03%	0.01%
4	8.6	0.00%	0.01%	0.03%	0.04%	0.05%	0.03%
5	8.1	-0.01%	0.01%	0.04%	0.04%	0.04%	0.02%
6	7.6	-0.01%	0.00%	0.01%	0.01%	0.01%	0.01%
7	7.1	-0.01%	0.01%	0.00%	0.11%	0.02%	0.02%
8	6.6	-0.02%	-0.01%	0.03%	0.05%	0.03%	0.02%
9	6.1	-0.01%	0.00%	0.04%	0.00%	0.02%	0.01%
10	5.6	-0.02%	0.00%	0.04%	0.01%	0.03%	0.01%
11	5.1	-0.02%	0.03%	0.00%	0.13%	0.04%	0.04%
12	4.6	-0.02%	0.03%	0.00%	0.04%	0.02%	0.01%
13	4.1	-0.02%	0.02%	0.02%	0.03%	0.02%	0.01%
14	3.6	0.00%	0.03%	0.02%	0.02%	0.06%	0.03%
15	3.1	0.05%	0.03%	0.06%	0.04%	0.05%	0.05%
16	2.6	0.08%	0.10%	0.10%	0.14%	0.08%	0.10%
17	2.1	0.07%	0.14%	0.09%	0.14%	0.13%	0.11%
18	1.6	0.06%	0.14%	0.07%	0.12%	0.15%	0.11%
19	1.1	0.09%	0.11%	0.12%	0.14%	0.16%	0.12%
20	0.6	0.13%	0.18%	0.21%	0.21%	0.23%	0.19%
	Sum total	0.36%	0.90%	0.95%	1.37%	1.21%	0.95%
	DPV	0.36	0.90	0.95	1.37	1.21	0.95

				Absolute deposition [µL/cm^2]			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00029	0.00102	0.00055	0.00062	0.00029	0.00055
2	9.6	-0.00013	0.00028	0.00005	0.00042	0.00028	0.00018
3	9.1	-0.00005	0.00002	0.00032	0.00027	0.00051	0.00021
4	8.6	-0.00005	0.00011	0.00043	0.00070	0.00087	0.00041
5	8.1	-0.00010	0.00015	0.00055	0.00058	0.00071	0.00038
6	7.6	-0.00009	0.00006	0.00014	0.00019	0.00020	0.00010
7	7.1	-0.00022	0.00009	0.00007	0.00174	0.00026	0.00039
8	6.6	-0.00026	-0.00011	0.00046	0.00082	0.00044	0.00027
9	6.1	-0.00021	-0.00002	0.00070	0.00003	0.00034	0.00017
10	5.6	-0.00025	-0.00002	0.00063	0.00019	0.00040	0.00019
11	5.1	-0.00034	0.00042	0.00006	0.00208	0.00062	0.00057
12	4.6	-0.00033	0.00043	0.00000	0.00066	0.00034	0.00022
13	4.1	-0.00029	0.00038	0.00031	0.00042	0.00033	0.00023
14	3.6	0.00005	0.00044	0.00035	0.00032	0.00099	0.00043
15	3.1	0.00077	0.00047	0.00098	0.00065	0.00077	0.00073
16	2.6	0.00124	0.00162	0.00152	0.00222	0.00134	0.00159
17	2.1	0.00108	0.00229	0.00149	0.00227	0.00204	0.00184
18	1.6	0.00102	0.00221	0.00110	0.00197	0.00234	0.00173
19	1.1	0.00151	0.00172	0.00193	0.00222	0.00248	0.00197
20	0.6	0.00216	0.00297	0.00330	0.00341	0.00359	0.00309

AIXR 110.04		Height	50 cm	Spacing	50 cm	Speed	4 m/s

% deposition

Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.03%	0.05%	0.01%	0.01%	0.05%	0.03%
2	9.6	0.06%	0.06%	0.07%	0.10%	0.12%	0.08%
3	9.1	0.00%	0.04%	0.04%	0.24%	0.11%	0.09%
4	8.6	0.03%	0.04%	0.09%	0.05%	0.06%	0.06%
5	8.1	0.07%	0.08%	0.11%	0.08%	0.07%	0.08%
6	7.6	0.06%	0.07%	0.04%	0.04%	0.19%	0.08%
7	7.1	0.09%	0.11%	0.03%	0.05%	0.13%	0.08%
8	6.6	0.06%	0.15%	0.03%	0.10%	0.16%	0.10%
9	6.1	0.13%	0.18%	0.11%	0.11%	0.15%	0.14%
10	5.6	0.32%	0.22%	0.14%	0.23%	0.24%	0.23%
11	5.1	0.31%	0.21%	0.14%	0.37%	0.24%	0.25%
12	4.6	0.35%	0.28%	0.35%	0.18%	0.18%	0.27%
13	4.1	0.43%	0.18%	0.32%	0.22%	0.20%	0.27%
14	3.6	0.38%	0.22%	0.32%	0.19%	0.21%	0.26%
15	3.1	0.38%	0.28%	0.27%	0.39%	0.41%	0.34%
16	2.6	0.50%	0.50%	0.45%	0.52%	0.57%	0.51%
17	2.1	0.74%	0.72%	0.48%	0.83%	0.83%	0.72%
18	1.6	0.73%	1.05%	0.77%	1.05%	0.91%	0.90%
19	1.1	0.83%	1.19%	0.80%	0.95%	1.12%	0.98%
20	0.6	1.11%	1.05%	0.95%	1.16%	1.30%	1.11%
	Sum total	6.59%	6.66%	5.49%	6.87%	7.26%	6.58%
	DPV	6.59	6.66	5.49	6.87	7.26	6.58

Absolute deposition [µL/cm^2]

Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00019	0.00033	0.00007	0.00007	0.00033	0.00020
2	9.6	0.00039	0.00035	0.00045	0.00067	0.00080	0.00053
3	9.1	0.00003	0.00024	0.00025	0.00159	0.00069	0.00056
4	8.6	0.00021	0.00028	0.00063	0.00031	0.00039	0.00036
5	8.1	0.00043	0.00053	0.00074	0.00055	0.00048	0.00055
6	7.6	0.00034	0.00044	0.00025	0.00025	0.00121	0.00050
7	7.1	0.00054	0.00071	0.00017	0.00033	0.00082	0.00051
8	6.6	0.00034	0.00094	0.00023	0.00064	0.00101	0.00063
9	6.1	0.00080	0.00115	0.00071	0.00074	0.00100	0.00088
10	5.6	0.00201	0.00136	0.00092	0.00154	0.00153	0.00147
11	5.1	0.00193	0.00133	0.00091	0.00245	0.00156	0.00163
12	4.6	0.00215	0.00175	0.00233	0.00120	0.00116	0.00172
13	4.1	0.00268	0.00115	0.00215	0.00146	0.00130	0.00175
14	3.6	0.00237	0.00137	0.00213	0.00126	0.00136	0.00170
15	3.1	0.00235	0.00176	0.00180	0.00255	0.00265	0.00222
16	2.6	0.00311	0.00316	0.00298	0.00346	0.00369	0.00328
17	2.1	0.00459	0.00457	0.00322	0.00547	0.00538	0.00464
18	1.6	0.00454	0.00662	0.00512	0.00693	0.00587	0.00581
19	1.1	0.00514	0.00752	0.00537	0.00625	0.00726	0.00631
20	0.6	0.00688	0.00661	0.00632	0.00766	0.00842	0.00718

AIRmix 110.05		Height	30 cm	Spacing	25 cm	Speed	2 m/s
				% deposition			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00%	0.01%	0.01%	0.02%	0.02%	0.01%
2	9.6	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%
3	9.1	0.00%	0.01%	0.00%	0.01%	0.02%	0.01%
4	8.6	0.00%	0.01%	0.00%	0.01%	0.01%	0.01%
5	8.1	0.00%	0.01%	0.00%	0.00%	0.02%	0.01%
6	7.6	0.00%	0.00%	0.00%	0.01%	0.01%	0.00%
7	7.1	-0.01%	-0.01%	0.01%	0.01%	0.00%	0.00%
8	6.6	0.00%	0.01%	0.01%	0.01%	0.01%	0.01%
9	6.1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
10	5.6	0.00%	0.00%	0.00%	0.01%	0.01%	0.00%
11	5.1	0.00%	0.02%	0.01%	0.01%	0.01%	0.01%
12	4.6	0.00%	0.00%	0.01%	0.02%	0.01%	0.01%
13	4.1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
14	3.6	0.01%	0.00%	0.02%	0.01%	0.01%	0.01%
15	3.1	0.00%	0.00%	0.03%	0.02%	0.01%	0.01%
16	2.6	0.02%	0.01%	0.04%	0.03%	0.02%	0.02%
17	2.1	0.06%	0.01%	0.08%	0.06%	0.02%	0.05%
18	1.6	0.04%	0.01%	0.04%	0.06%	0.05%	0.04%
19	1.1	0.06%	0.01%	0.05%	0.06%	0.08%	0.05%
20	0.6	0.09%	0.04%	0.18%	0.13%	0.12%	0.11%
	Sum total	0.28%	0.12%	0.49%	0.47%	0.43%	0.36%
	DPV	0.28	0.12	0.49	0.47	0.43	0.36

		Absolute deposition [μL/cm^2]					
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	-0.00016	0.00022	0.00039	0.00060	0.00065	0.00034
2	9.6	-0.00021	-0.00009	0.00016	0.00016	0.00025	0.00005
3	9.1	0.00003	0.00038	0.00020	0.00021	0.00063	0.00029
4	8.6	-0.00005	0.00047	0.00006	0.00032	0.00056	0.00027
5	8.1	0.00006	0.00031	0.00008	0.00017	0.00073	0.00027
6	7.6	-0.00011	0.00003	-0.00001	0.00036	0.00058	0.00017
7	7.1	-0.00027	-0.00028	0.00024	0.00036	-0.00009	-0.00001
8	6.6	0.00009	0.00033	0.00042	0.00026	0.00034	0.00029
9	6.1	-0.00016	-0.00019	-0.00001	0.00011	0.00003	-0.00005
10	5.6	0.00016	-0.00010	0.00017	0.00038	0.00025	0.00017
11	5.1	-0.00004	0.00065	0.00023	0.00027	0.00030	0.00028
12	4.6	0.00001	0.00000	0.00044	0.00084	0.00029	0.00032
13	4.1	0.00006	0.00000	0.00017	0.00012	0.00012	0.00009
14	3.6	0.00032	0.00007	0.00068	0.00035	0.00036	0.00036
15	3.1	0.00017	-0.00007	0.00138	0.00061	0.00043	0.00050
16	2.6	0.00102	0.00046	0.00154	0.00098	0.00089	0.00098
17	2.1	0.00289	0.00050	0.00324	0.00206	0.00090	0.00192
18	1.6	0.00195	0.00029	0.00170	0.00231	0.00208	0.00167
19	1.1	0.00276	0.00047	0.00189	0.00208	0.00308	0.00206
20	0.6	0.00404	0.00157	0.00733	0.00449	0.00501	0.00449

AIRmix 110.05		Height	50 cm	Spacing	50 cm	Speed	2 m/s

% deposition

Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.04%	0.03%	0.01%	0.02%	0.01%	0.02%
2	9.6	0.00%	0.02%	0.01%	0.01%	0.04%	0.02%
3	9.1	0.00%	0.01%	0.01%	0.02%	0.02%	0.01%
4	8.6	0.03%	0.02%	0.01%	0.05%	0.02%	0.02%
5	8.1	0.01%	0.02%	0.02%	0.02%	0.02%	0.02%
6	7.6	0.00%	0.02%	0.02%	0.01%	0.01%	0.02%
7	7.1	0.00%	0.02%	0.02%	0.01%	0.02%	0.02%
8	6.6	0.19%	0.04%	0.01%	0.02%	0.02%	0.02%
9	6.1	0.01%	0.00%	0.03%	0.05%	0.01%	0.02%
10	5.6	-0.01%	0.00%	0.01%	0.03%	0.02%	0.01%
11	5.1	0.01%	0.01%	0.02%	0.06%	0.04%	0.03%
12	4.6	-0.01%	0.01%	0.03%	0.01%	0.03%	0.02%
13	4.1	0.00%	0.01%	0.02%	0.04%	0.06%	0.03%
14	3.6	-0.01%	0.04%	0.03%	0.05%	0.04%	0.04%
15	3.1	-0.01%	0.04%	0.06%	0.06%	0.05%	0.05%
16	2.6	0.00%	0.04%	0.14%	0.09%	0.08%	0.09%
17	2.1	0.01%	0.18%	0.14%	0.31%	0.08%	0.18%
18	1.6	0.09%	0.13%	0.25%	0.27%	0.14%	0.20%
19	1.1	0.16%	0.18%	0.36%	0.28%	0.23%	0.26%
20	0.6	0.30%	0.32%	0.49%	0.61%	0.45%	0.47%
	Sum total	0.83%	1.14%	1.68%	2.05%	1.38%	1.56%
	DPV	0.83	1.14	1.68	2.05	1.38	1.56

Absolute deposition [µL/cm^2]

Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00074	0.00049	0.00021	0.00038	0.00022	0.00041
2	9.6	0.00007	0.00036	0.00019	0.00015	0.00066	0.00028
3	9.1	-0.00005	0.00011	0.00009	0.00036	0.00034	0.00017
4	8.6	0.00044	0.00027	0.00012	0.00075	0.00029	0.00037
5	8.1	0.00016	0.00026	0.00026	0.00033	0.00026	0.00025
6	7.6	-0.00004	0.00033	0.00028	0.00019	0.00018	0.00019
7	7.1	-0.00007	0.00029	0.00031	0.00022	0.00029	0.00021
8	6.6	0.00320	0.00060	0.00018	0.00039	0.00037	0.00095
9	6.1	0.00021	0.00007	0.00052	0.00080	0.00013	0.00035
10	5.6	-0.00016	0.00006	0.00018	0.00039	0.00033	0.00016
11	5.1	0.00016	0.00015	0.00028	0.00092	0.00059	0.00042
12	4.6	-0.00008	0.00022	0.00045	0.00022	0.00054	0.00027
13	4.1	-0.00003	0.00019	0.00036	0.00069	0.00095	0.00043
14	3.6	-0.00008	0.00063	0.00040	0.00080	0.00071	0.00049
15	3.1	-0.00010	0.00060	0.00088	0.00100	0.00085	0.00065
16	2.6	0.00006	0.00069	0.00217	0.00138	0.00130	0.00112
17	2.1	0.00016	0.00288	0.00226	0.00476	0.00138	0.00229
18	1.6	0.00153	0.00207	0.00395	0.00420	0.00232	0.00281
19	1.1	0.00269	0.00290	0.00567	0.00436	0.00378	0.00388
20	0.6	0.00487	0.00514	0.00766	0.00937	0.00749	0.00691

AIRmix 110.05		Height	30 cm		Spacing	25 cm		Speed	4 m/s

% deposition

Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.01%	0.02%	0.00%	0.00%	0.01%	0.01%
2	9.6	0.01%	0.01%	0.00%	0.00%	0.01%	0.01%
3	9.1	0.03%	0.00%	0.00%	0.00%	0.00%	0.01%
4	8.6	0.01%	0.01%	0.01%	0.00%	0.01%	0.01%
5	8.1	0.02%	0.01%	0.02%	0.00%	0.03%	0.01%
6	7.6	0.01%	0.00%	0.04%	0.00%	0.01%	0.01%
7	7.1	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%
8	6.6	0.02%	0.02%	0.01%	0.01%	0.00%	0.01%
9	6.1	0.02%	0.02%	0.01%	0.00%	0.01%	0.01%
10	5.6	0.01%	0.03%	0.03%	0.01%	0.01%	0.02%
11	5.1	0.02%	0.00%	0.01%	0.03%	0.04%	0.02%
12	4.6	0.03%	0.01%	0.00%	0.03%	0.02%	0.02%
13	4.1	0.04%	0.02%	0.00%	0.02%	0.01%	0.02%
14	3.6	0.02%	0.02%	0.00%	0.02%	0.04%	0.02%
15	3.1	0.04%	0.01%	0.03%	0.02%	0.04%	0.03%
16	2.6	0.06%	0.01%	0.04%	0.03%	0.08%	0.04%
17	2.1	0.14%	0.06%	0.04%	0.06%	0.08%	0.08%
18	1.6	0.12%	0.09%	0.07%	0.08%	0.09%	0.09%
19	1.1	0.10%	0.15%	0.07%	0.13%	0.11%	0.11%
20	0.6	0.12%	0.15%	0.10%	0.12%	0.13%	0.12%
	Sum total	0.83%	0.65%	0.48%	0.56%	0.73%	0.65%
	DPV	0.83	0.65	0.48	0.56	0.73	0.65

Absolute deposition [µL/cm^2]

Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00013	0.00036	-0.00001	-0.00004	0.00017	0.00012
2	9.6	0.00020	0.00012	0.00007	0.00007	0.00024	0.00014
3	9.1	0.00066	0.00001	-0.00008	-0.00009	0.00007	0.00012
4	8.6	0.00021	0.00029	0.00020	0.00004	0.00012	0.00017
5	8.1	0.00039	0.00011	0.00038	0.00003	0.00068	0.00032
6	7.6	0.00021	0.00006	0.00093	0.00008	0.00019	0.00029
7	7.1	0.00034	0.00004	0.00011	-0.00003	0.00007	0.00011
8	6.6	0.00049	0.00039	0.00030	0.00028	-0.00001	0.00029
9	6.1	0.00047	0.00034	0.00021	-0.00004	0.00024	0.00024
10	5.6	0.00033	0.00072	0.00061	0.00033	0.00018	0.00043
11	5.1	0.00045	0.00002	0.00018	0.00060	0.00091	0.00043
12	4.6	0.00060	0.00026	0.00009	0.00061	0.00045	0.00040
13	4.1	0.00084	0.00049	0.00011	0.00051	0.00021	0.00043
14	3.6	0.00053	0.00053	0.00011	0.00044	0.00093	0.00051
15	3.1	0.00080	0.00027	0.00078	0.00038	0.00089	0.00062
16	2.6	0.00124	0.00021	0.00083	0.00063	0.00167	0.00092
17	2.1	0.00326	0.00139	0.00097	0.00144	0.00177	0.00176
18	1.6	0.00262	0.00207	0.00152	0.00183	0.00190	0.00199
19	1.1	0.00230	0.00318	0.00176	0.00297	0.00234	0.00251

AIRmix 110.05		Height	50 cm	Spacing	50 cm	Speed	4 m/s
				% deposition			
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.02%	0.05%	0.02%	0.05%	0.02%	0.03%
2	9.6	0.10%	0.03%	0.05%	0.01%	0.01%	0.04%
3	9.1	0.09%	0.03%	0.10%	0.06%	0.09%	0.07%
4	8.6	0.03%	0.04%	0.08%	0.07%	0.14%	0.07%
5	8.1	0.03%	0.03%	0.09%	0.08%	0.02%	0.05%
6	7.6	0.02%	0.09%	0.16%	0.09%	0.06%	0.09%
7	7.1	0.03%	0.15%	0.06%	0.04%	0.04%	0.06%
8	6.6	0.08%	0.10%	0.13%	0.04%	0.06%	0.08%
9	6.1	0.12%	0.21%	0.09%	0.04%	0.06%	0.10%
10	5.6	0.18%	0.15%	0.12%	0.24%	0.24%	0.18%
11	5.1	0.24%	0.19%	0.26%	0.13%	0.22%	0.21%
12	4.6	0.31%	0.33%	0.16%	0.21%	0.25%	0.25%
13	4.1	0.27%	0.23%	0.16%	0.53%	0.28%	0.29%
14	3.6	0.19%	0.34%	0.22%	0.48%	0.25%	0.29%
15	3.1	0.29%	0.34%	0.32%	0.36%	0.24%	0.31%
16	2.6	0.46%	0.52%	0.40%	0.40%	0.55%	0.47%
17	2.1	0.78%	0.63%	0.55%	0.58%	0.82%	0.67%
18	1.6	1.00%	0.74%	0.63%	0.86%	0.73%	0.79%
19	1.1	0.94%	0.82%	0.86%	0.97%	0.95%	0.91%
20	0.6	1.20%	0.94%	0.83%	1.15%	1.23%	1.07%
	Sum total	6.38%	5.96%	5.28%	6.37%	6.26%	6.05%
	DPV	6.38	5.96	5.28	6.37	6.26	6.05

			Absolute deposition [μL/cm^2]				
Collector	Distance from switch (m)	#1	#2	#3	#4	#5	Average
1	10.1	0.00017	0.00040	0.00020	0.00043	0.00017	0.00027
2	9.6	0.00844	0.01089	0.01497	0.00760	0.00791	0.00996
3	9.1	0.01867	0.03595	0.01917	0.00983	0.01061	0.01885
4	8.6	0.01126	0.02787	0.01372	0.00862	0.01171	0.01464
5	8.1	0.01230	0.01624	0.01704	0.01771	0.02220	0.01710
6	7.6	0.02019	0.02967	0.01857	0.03509	0.01346	0.02340
7	7.1	0.02508	0.02077	0.02392	0.02260	0.01540	0.02155
8	6.6	0.02393	0.02351	0.02242	0.01927	0.01393	0.02061
9	6.1	0.03702	0.02636	0.03222	0.02057	0.01488	0.02621
10	5.6	0.03887	0.03915	0.03233	0.01944	0.01798	0.02955
11	5.1	0.03647	0.05014	0.04165	0.04623	0.02322	0.03954
12	4.6	0.02546	0.04071	0.03990	0.04773	0.01941	0.03464
13	4.1	0.04236	0.03368	0.04892	0.05646	0.01526	0.03934
14	3.6	0.04167	0.02818	0.03827	0.04057	0.02552	0.03484
15	3.1	0.04226	0.05103	0.04501	0.02858	0.02337	0.03805
16	2.6	0.04659	0.04848	0.04298	0.02266	0.03227	0.03860
17	2.1	0.05402	0.03831	0.05033	0.03578	0.04136	0.04396
18	1.6	0.06763	0.03810	0.06265	0.06308	0.06753	0.05980
19	1.1	0.04900	0.05160	0.09183	0.07439	0.05839	0.06504
20	0.6	0.06071	0.07158	0.07453	0.10180	0.05368	0.07246