



GLOBALG.A.P.

Data Driven Approach to Environmental Sustainability add-on

ENGLISH VERSION 0.1 **DRAFT**

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INTRODUCTION

As part of efforts to increase environmental sustainability within good agricultural practices, GLOBALG.A.P. introduces a **Data-Driven Approach to sustainability in our standards**. This consists of collecting data from growers on input consumption, processing the data, and transforming it into information which has a variety of uses.

Collecting input consumption data from growers and transforming it into information is intended to:

- a. Support producers in making their production systems more sustainable through improved decision-making, so that the whole supply chain benefits.
- b. Help GLOBALG.A.P. gain knowledge of producer realities, which in turn can
 - i. improve GLOBALG.A.P. standards and any other interventions within the supply chain,
 - ii. help make the standard leaner and simplify the assurance.
- c. Monitor and evaluate the impact of standards on sustainable farming through the reflection of input indicators on performance.
- d. Give the buyer a stronger sense of trust in a certification system that is outcome-based.

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N°	Control Points	Compliance Criteria	Level
DDA	DATA DRIVEN APPROACH TO SUSTAINABILITY IN FLOWERS AND ORNAMENTALS		
	<i>Control points in this module covers issues relevant to all farming businesses and are applicable to all producers.</i>		
DDA 1	GENERAL		
	For those producers that implement this add-on in combination with the GLOBALG.A.P. Integrated Farm Assurance (IFA) standard the control point DDA 1.1 applies:		
DDA 1.1	Compliance against the following Minor Must control points of the Integrated Farm Assurance Flower and Ornamental standard v5.2 is required: Has the farm complied after the last inspection with each of the following GLOBALG.A.P. IFA control points that relate to: <ul style="list-style-type: none"> - plant nutrients and risks: CB 4.5.1; CB 3.6 - records of fertilizer application: CB 4.2.1 – CB 4.2.4 - records of water used in irrigation: CB 5.2.3 - records of plant protection products (PPP) treatments at the nursery: CB 2.2.2 - records of PPP applications: CB 7.3.2 – CB 7.3.3; CB 7.3.5 – CB 7.3.8 - records of applications of all other substances different from PPP or fertilizers: CB 7.11.1 	In order to comply with this add-on control point (DDA 1.1), the producer shall fully comply to the following control points of the most applicable version of the GLOBALG.A.P. IFA standard: <ul style="list-style-type: none"> - plant nutrients and risks: CB 4.5.1; CB 3.6 - records of fertilizer application: CB 4.2.1 – CB 4.2.4 - records of water used in irrigation: CB 5.2.3 - records of PPP treatments at the nursery: CB 2.2.2 - records of PPP applications: CB 7.3.2 – CB 7.3.3; CB 7.3.5 – CB 7.3.8 - records of applications of all other substances different from PPP or fertilizers: CB 7.11.1. No N/A.	Major Must
	For those producers that implement this add-on in combination with the localg.a.p. Primary Farm Assurance (PFA) standard, the control point DDA 1.2 applies:		

N°	Control Points	Compliance Criteria	Level
DDA 1.2	Compliance against the following Minor Musts in the Primary Farm Assurance for Flowers and Ornamentals v5 is required: the following localg.a.p. PFA control points that relate to: <ul style="list-style-type: none"> - plant nutrients and risks: FO 4.1.1; FO 4.1.2 - records of fertilizer application: FO 4.2.1 – FO 4.2.4 - records of water used in irrigation: FO 5.2.1 - records of PPP treatments at the nursery: FO 7.2.1 - records of PPP applications: FO 7.2.1; FO 7.2.4; FO 7.2.5; FO 7.2.9. 	In order to comply with this add-on control point (DDA 1.2), the producer shall fully comply or conform to the following control points of the most current version of the localg.a.p. PFA entry level standard for Flowers and Ornamentals: <ul style="list-style-type: none"> - plant nutrients and risks: FO 4.1.1 and FO 4.1.2 - records of fertilizer application: FO 4.2.1 – FO 4.2.4 - records of water used in irrigation FO 5.2.1 - records of PPP treatments at the nursery FO 7.2.1 - records of PPP applications FO 7.2.1; FO 7.2.4; FO 7.2.5; ; FO 7.2.9 No N/A.	Major Must
DDA 2	WATER		
DDA 2.1	Records of Water Use		
DDA 2.1.1	Are records of water abstracted kept and digitally reported to GLOBALG.A.P. through a farm management software?	The producer shall keep records and digitally reports to GLOBALG.A.P. through a farm management software of the abstraction of water from water sources.	Major Must
DDA 2.1.2	Are records of water used in irrigation, see IFA CB 5.2.3 and PFA FO 5.2.1 digitally reported to GLOBALG.A.P. through a farm management software?	The producer shall keep records and digitally reports to GLOBALG.A.P. through a farm management software of the water used in irrigation.	Major Must
DDA 3	INTEGRATED PEST MANAGEMENT		
	A pest is considered relevant once it has a significant affect on a registered or relevant crop. Relevance of a particular crop can be based on the following: 1) when a crop is occupying a significant area; 2) when the pest management costs of the crops are significantly high, or 3) the crop value is significant.		
DDA 3.1	What is the existing knowledge at company level, on the relevant pests, diseases and weeds to the registered crop, in terms of life cycle, damage symptoms, identification and is this documented?	A document (digital or in paper) which includes basic information on relevant pests, diseases, and weeds that can affect the registered crop in the specific region is available to demonstrate the necessary knowledge. This may include life cycle, drawings or images that help in its identification, damage symptoms, conditions that promote their development, and time of appearance. Methods to monitor the pest and how to record results are described. No N/A.	Major Must

N°	Control Points	Compliance Criteria	Level
DDA 3.2	<p>Are strategies to manage relevant pests at farm level documented, including preventive, monitoring and intervention strategies with a stepwise approach that prioritizes preventive measures and the lowest toxicity interventions?</p>	<p>Strategies shall be documented digitally or on paper.</p> <p>For each relevant pest the preventive and monitoring methods, as well as the intervention measures are described.</p> <p>Strategies include:</p> <ul style="list-style-type: none"> - a stepwise approach to manage pests, starting with preventive measures - followed by the use of measures that are compatible with any introduced natural enemies (if applicable) - to only introduce the use of higher toxic or less compatible PPPs, when thresholds are surpassed - between each step, or strategy thresholds are set, that define when the next strategie needs to be implemented. Thresholds are defined by the producer based on own experience, external advice, training, and/or local conditions. <p>The document can include a description of growing conditions which could promote the development of the relevant pests, and may include proper balanced plant nutrition, humidity, etc.</p> <p>Measures can include a list of natural enemies, physical strategies, etc. Measures to avoid the build-up of resistance to PPPs in pests, pathogens, diseases, weeds (including rotation of the PPP mode of action) should also be considered.</p> <p>No N/A.</p>	Major Must
DDA 3.3	<p>Are records of monitoring results for key pests, diseases and weeds documented?</p>	<p>Up to date monitoring records are kept (digital or on paper) and are shall be useful to describe the presence/absence of a pest, weed and/or disease, and also to track their development. These records shall, at a minimum include:</p> <ul style="list-style-type: none"> • identification of the plot and crop • name of person conducting monitoring • date of monitoring (exact dates) • name of pest, disease or weed • location inside the plot • decision taken <p>Records shall be archived in order to allow comparisons of results from different years and different plots.</p> <p>No N/A.</p>	Major Must

N°	Control Points	Compliance Criteria	Level
DDA 3.4	Is there evidence that the producer has analysed, at least once a year, the available data on IPM, in order to identify opportunities to learn and improve their IPM system?	<p>Documented evidence shall be available, to show that the following data (at a minimum) have been considered:</p> <ul style="list-style-type: none"> - records of pest, disease, or weed monitoring - strategies used to control pests, diseases or weeds - PPP application records - PPP application equipment maintenance and calibration records - trends in amounts of PPP used - records of monitoring of pests and diseases <p>Also, relevant to consider other sources which could lead to understand the origin of increased pest, diseases or weeds, such as:</p> <ul style="list-style-type: none"> - plant nutrition (fertilizer application) and stress mitigation (biostimulants) - evaluation and selection of suitable crop or varieties. - vicinity of production areas with high biodiversity - low risk use of organic matter (if applicable) - optimal water irrigation - productivity data - weather data No N/A. 	Major Must
DDA 3.5	Is there evidence of the implementation of any corrective action, if the need for improvement of the IPM system is identified?	As a result of the analysis, conclusions are recorded, including corrective actions (if needed). There shall be evidence of implementation of those corrective actions.	Major Must
DDA 4	PLANT PROTECTION PRODUCTS		
DDA 4.1	Choice of Plant Protection Products (PPPs)		
DDA 4.1.1	Is the use of those PPPs listed as persistent organic pollutants in Annex A of the Stockholm Convention and those listed as extremely hazardous (class 1a) by the World Health Organization minimized?	A list is available for the commercial brand names of PPPs (including their active ingredient composition or beneficial organisms) which are used on crops which have been, grown on the farm under localg.a.p. PFA or under GLOBALG.A.P. IFA within the last 12 months. It is possible to identify in the list if a PPP has an active ingredient that is listed as persistent organic pollutant in Annex A of the Stockholm Convention and those listed as Extremely Hazardous WHO 1a, (The WHO recommended classification of pesticides by hazard, 2009). There is evidence that the use of these PPP is minimized. No N/A.	Recom.

N°	Control Points	Compliance Criteria	Level
DDA 4.2	Records of Plant Protection Products (PPP) Applications		
DDA 4.2.1	<p>Are records of PPP applications kept and digitally reported to GLOBALG.A.P. through a farm management software, and do they include the following minimum criteria:</p> <ul style="list-style-type: none"> - product category - size of the area affected (in Ha)? 	<p>The following PPP application records shall be digitally reported to GLOBALG.A.P. through a farm management software:</p> <ul style="list-style-type: none"> - the product category according to the GLOBALG.A.P. Product List - the size of the plot (in Ha) where the PPP application was made 	Major Must
DDA 4.2.2	<p>Are the following records of PPP digitally reported to GLOBALG.A.P. through a farm management software?</p> <p>in Integrated Farm Assurance Flower and Ornamentals v5.2</p> <ul style="list-style-type: none"> - records of PPP treatments at the nursery: CB 2.2.2 - records of PPP applications: CB 7.3.1 – CB 7.3.3; CB 7.3.5 – CB 7.3.8 - records of applications of all other substances different from PPP or fertilizers: CB 7.11.1 <p>in Primary Farm Assurance Flower and Ornamentals v5</p> <ul style="list-style-type: none"> - records of PPP treatments at the nursery: FO 7.2.1 - records of PPP applications: FO 7.2.1 – FO 7.2.2; FO 7.2.4; FO 7.2.5; FO 7.2.8; FO 7.2.9 - records of postharvest treatments: FO 8.2; FO 8.4 	<p>The producer shall keep records of PPP usage and digitally report to GLOBALG.A.P. through a farm management software.</p>	Major Must

N°	Control Points	Compliance Criteria	Level
DDA 5	ENERGY		
DDA 5.1	Records of Energy Use		
DDA 5.1.1	Are records of on-farm energy use per source kept and digitally reported to GLOBALG.A.P. through a farm management software?	<p>Records of energy use exist (e.g. invoices where energy consumption is detailed, for small producers estimates of energy use are valid), including electricity, fossil fuels, other sources and are digitally reported to GLOBALG.A.P. through a farm management software.</p> <p>Producer records distinguish amount of energy in kWh from each source and which sources are renewable and which are non-renewable.</p> <p>The producer keeps track of its overall energy use at farm in kWh.</p> <p>The producer is aware of where and how energy is consumed on the farm and through farming practices.</p>	Major Must
DDA 6	FERTILIZER APPLICATION		
DDA 6.1	Records of Fertilizer Use		
	<p>Are the following records of fertilizer applications digitally reported to GLOBALG.A.P. through a farm management software?:</p> <ul style="list-style-type: none"> - in Integrated Farm Assurance Flower and Ornamentals v5.2 records of fertilizer application: CB 4.2.1 – CB 4.2.4 - in Primary Farm Assurance Flower and Ornamentals v5: records of fertilizer application: FO 4.2.1 – FO 4.2.4 	Records of fertilizer application as per the control are digitally reported to GLOBALG.A.P. through a farm management software.	