

RHP Training - Growing Media A

	Growing Media A -General knowledge-
Course duration	8 x 3 hours
Target audience	Persons in the sector with a horticultural training or related experience, who (will) hold positions as manager, advisor, salesman, teel supervisor, team leader or laboratory technician in the substrate (raw material) sector. Follow-up course for people who have successfully completed the basic course for production employees and have the potential to grow within the company.
Main learning goal	Mastering basic knowledge about the production and application of substrates

Below are the different modules of the course Growing Media A listed.

Introduction	
Required time	0.5 hour
Learning objective	Introduction structure course and getting to know each other
Knowledge	<ul style="list-style-type: none"> ✓ Structure course ✓ Introduction of RHP and students ✓ Rules of the game during course and in terms of homework

RHP quality marks		
Required time	1,5 hour	
Learning objective	The organization RHP, its activities and quality marks	
Knowledge	<ul style="list-style-type: none"> ✓ Introduction ✓ Usefulness of control ✓ Standard development (PG/CCvD/TC) ✓ Chain control ✓ Improvement Analysis 	<ul style="list-style-type: none"> ✓ The quality marks ✓ PCS RHP ✓ Minerva ✓ Research
Skills	To be able to explain what the quality mark means. Be able to read from PCS.	
Working methods	<ul style="list-style-type: none"> ✓ Presentation of the history of RHP, RHP now and RHP certification. ✓ Question method 'Usefulness of chain control' ✓ Table with 3 columns (problem/cause/Place in the chain of raw material-transport-port-transport-substrate manufacturer- transport-grower) ✓ Home assignment (30 min.) <p>'Look up in the PCS'. To indicate where it can be found in the PCS and what the answer is. Discuss the next lesson.</p>	

Chemical aspects	
Required time	3,75 hours
Learning objective	Knowledge of the basic chemistry with regard to raw materials and substrates
Knowledge	<ul style="list-style-type: none"> ✓ Basic concepts: EC, pH and nutrients ✓ Basic methods of analysis (1:1,5 method, growing test and cultivation test) ✓ basic fertilizers (fertilizers for potting soil, lime fertilizers, CRF, organic fertilizers) ✓ sampling ✓ Basic fertilization ✓ Liming ✓ Safety values
Skills	<ul style="list-style-type: none"> ✓ Knowledge of the basic analysis methods and to be able to read associated analysis reports ✓ Being able to take samples responsibly ✓ Being able to perform a 1:1.5 extraction yourself ✓ Assessing risks to prevent excesses
Working methods	<ul style="list-style-type: none"> ✓ Independently carry out assignments in class ✓ Homework (to be taken and discussed in a subsequent lesson) ✓ Workshop 1:1,5 (demo, self-deployment, weighing)

Physical aspects	
Required time	3 hours
Learning objective	Knowledge of the basic physics in substrates
Knowledge	<ul style="list-style-type: none"> ✓ Basic concepts: moisture, organic matter, bulk density, pores, pressure height, water, air, GBW, shrinkage, WOK and fraction distribution. ✓ The basic analysis methods (limited physical, WOK, sieve fraction determination) ✓ Relationship between air and fraction distribution in white peat.
Skills	<ul style="list-style-type: none"> ✓ Knowledge of the basic analysis methods and to be able to read associated analysis reports ✓ To be able to calculate air content based on a fractional distribution.
Working methods	<ul style="list-style-type: none"> ✓ Question method ✓ Fill in the table WOK and air in relation to raw material ✓ Red or green card method? For example by showing good and wrong graphs that indicate the relationship between air and fine parts in white peat ✓ Homework (to be discussed in the next lesson)

Phytosanitary aspects	
Required time	<i>1 hour</i>
Learning objective	Knowledge of the greatest phytosanitary risks when using substrates
Knowledge	<ul style="list-style-type: none"> ✓ Subdivision of plant pathogenic organisms (fungi, viruses, bacteria, nematodes) with a few examples ✓ The main pathogenic organisms in relation to substrates ✓ Main saproface organisms
Skills	<ul style="list-style-type: none"> ✓ To be able to answer simple questions of phytosanitary aspects and to be able to estimate when research is necessary
Working methods	<ul style="list-style-type: none"> ✓ Independently carry out assignments in class ✓ Homework (to be discussed in the next lesson)

Phytosanitary aspects (weeds)	
Required time	<i>1,5 hour</i>
Learning objective	Knowledge of the different weed groups and the consequences
Knowledge	<ul style="list-style-type: none"> ✓ Damage due to weeds ✓ Weed groups ✓ Sources of infection at nursery ✓ Weed test ✓ Weed standards ✓ Brief introduction to the RPBF
Skills	<ul style="list-style-type: none"> ✓ To know and distinguish the most important weed groups
Working methods	<ul style="list-style-type: none"> ✓ Question method to be determined ✓ Independently carry out assignments in class ✓ Homework (to be discussed in the next lesson) ✓ Demo weed material from greenhouse

Substrates and Substrate Raw Materials	
Required time	<i>3 hours</i>
Learning objective	To know substrates and raw materials and to distinguish them on the most important characteristics
Knowledge	<ul style="list-style-type: none"> ✓ Specific characteristics and risks of all raw materials, also in relation to method of extraction or production
Skills	<ul style="list-style-type: none"> ✓ Being able to distinguish (visually) from substrate raw materials and to be able to assess the risks
Working methods	<ul style="list-style-type: none"> ✓ Question method ✓ To let jars go around with raw materials under number and to fill in the table with some specific characteristics (air, WOK and risk / disadvantage); 1 pot with tricky mixture ✓ Homework (to be discussed in the next lesson)

Substrate production	
Required time	<i>1 hour</i>
Learning objective	Being able to assess risks in relation to substrate production
Knowledge	<ul style="list-style-type: none"> ✓ Business equipment ✓ Company hygiene ✓ Raw material classification RHP ✓ Mixing process ✓ EN Volume method ✓ Volume loss ✓ Transport ✓ Brief knowledge about scalding and the influence of storage conditions of packaged organic substrates
Skills	<ul style="list-style-type: none"> ✓ To be able to determine volume ✓ Being able to make a simple risk analysis of production location and storage situations
Working methods	<ul style="list-style-type: none"> ✓ Educational learning interview ✓ How do you come to a good layout of the work floor based on filling in the floor plan ✓ Homework (to be discussed in the next lesson)

Develop recipes	
Required time	<i>2,5 hours</i>
Learning objective	Knowledge of how to draw up a simple substrate recipe
Knowledge	<ul style="list-style-type: none"> ✓ To know the chemical and physical characteristics that determine the composition of and potting soil ✓ Easy recipe drafting
Skills	<ul style="list-style-type: none"> ✓ Being able to compose a simple potting soil recipe ✓ Being able to name and estimate preconditions for composing potting soil ✓ Being able to identify risky recipes
Working methods	<ul style="list-style-type: none"> ✓ Question method ✓ Name aspects that determine the recipe ✓ Case ✓ Put together a recipe for a grower