



The Curriculum

The “traditional orchard” curriculum is one of main project results. The training of „Specialist in Traditional Orchards“ intends to enlarge and deepen the classical professional training within related fields. The curriculum offers a possibility to teach/learn and to discover new/forgotten knowledge about traditional orchards and ways of sustainable orchard management. The aim is to provide students the knowledge about traditional orchards in fields of pomology, management & care and processing & marketing of their products. The second aim is to develop the needed skills and competences to integrate this knowledge and insight in different kinds of professional environments.

The curriculum, based on ECVET-instrument (European Credit System for Vocational Education and Training), using an output-oriented approach consists of Units and Learning Outcomes describing the knowledge, skills and competences to be reached by students/trainees. The curriculum is aimed at formal and informal educational institutions and organisations and all other interested groups dealing with traditional orchard topics. The curriculum is available in six European languages.


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ESTO – European Specialist in Traditional Orchards




Curriculum – overview

Unit no.	Focus group / unit name
	<i>Module Pomology</i>
1	Getting the pomological base (L3,4,5)
	<i>Module Care & management</i>
2.1	Establishment – planning a new traditional orchard (L4)
2.2	Establishment – establishing a new traditional orchard (L4)
3.1	Care – analysing an existing traditional orchard (L4)
3.2	Care – implementing care and management for an existing orchard (L4)
4	Propagating fruit trees for traditional orchards (L3,4,5)
5	Harvesting and storing fruit (L4)
	<i>Module Processing & marketing</i>
6	Getting clear with the official requirements for running a processing company (L4)
7	Producing fruit juice (L3,4,5)
8	Producing dried fruit (L4)
9	Producing fruit brandy (L4)

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<p>POMOLOGY</p>	<p>Unit 1</p>
<p>Getting the pomological base</p>	<p>L 4</p>
<p>KNOWLEDGE He/she knows</p> <ol style="list-style-type: none"> 1. the features of the most important fruit species (apple, pear, plum, cherry and sour cherry) by the following points: <ol style="list-style-type: none"> a) origin and ecological needs b) phenology c) morphology of trees, fruiting buds, fruits (most detailed) d) inner quality parameters of fruits (sugar/acid content, nutrition value) 2. the general requirements of the varieties suitable for traditional orchards <ol style="list-style-type: none"> a) Requirements related to technology (tolerance to pests and diseases, competing plant species, abiotic growing conditions, special bearing habit etc.) b) Requirements related to marketing and rural development (consumer’s preferences, protection of cultural values etc.) 3. the features of 30 fruit varieties for traditional orchards by the following points: <ol style="list-style-type: none"> a) Fruit morphology b) Vegetative features c) History and origin d) Phenology e) Tree vigour and natural habit f) Yield and fruit quality (appearance and inner quality) g) Special properties (pest/disease resistance/susceptibility, fertility conditions, recommended growing conditions, technology needs, processing value etc.) 4. the advantages and disadvantages of old varieties (special appearance, taste, rareness, remarkable products, healthy growing conditions, etc.) 5. the different tastes and flavours of fruits and the methods of tasting fruits 6. sources, where to get old varieties from 	<p>SKILLS He/she is able to</p> <ol style="list-style-type: none"> 1. identify the most important fruit species and to distinguish them from each other 2. identify 30 fruit varieties from fruit samples, distinguish them from each other and describe their features 3. taste fruits, assess their tasting features and describe their taste and flavour 4. search further information on (more) fruit varieties and their features 5. collect fruits for an exhibition
<p>COMPETENCES</p> <ol style="list-style-type: none"> 1. He/she chooses varieties for the establishment of a traditional orchard suitable for the local growing conditions in his/her own. 2. He/she demonstrates the varieties of a traditional orchard on his/her own. 3. He/she organises and conducts an exhibition of old fruit varieties on his/her own. 	

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CARE & MANAGEMENT		Unit 3.2
Care Implementing care and management for an existing orchard		L 4
<p>KNOWLEDGE</p> <p>He/she knows</p> <ol style="list-style-type: none"> 1. the use of tools and machines to care for a traditional orchard 2. the personal equipment for protection and safety conditions 3. to maintain standard trees by regular forming and pruning 4. the principles of fertilization and irrigation 5. to prevent damages by domestic or wild animals 6. to maintain grassland 7. to protect the wildlife 8. to maintain infrastructure (fences, driveways, etc.) 	<p>SKILLS</p> <p>He/she is able to</p> <ol style="list-style-type: none"> 1. implement and conduct a care plan 2. choose and use the appropriate equipment and methods for care and management 3. prune, form, fertilize, irrigate and protect orchard trees to keep their vitality 4. maintain the standard trees, the grassland, the infrastructure 5. to reach the production goal (economic and ecological orientation) 	
<p>COMPETENCES</p> <ol style="list-style-type: none"> 1. He/she manages and cares for an existing orchard on his/her own. 2. He/she gets an economic benefit from the orchard. 3. He/she guarantees ecological benefits for all creatures and habitats involved. 		

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PROCESSING & MARKETING		Unit 7
Producing fruit juice		L 4
<p>KNOWLEDGE</p> <p>He/she knows</p> <ol style="list-style-type: none"> 1. ingredients and nutritive value of fruits and fruit juice (from old varieties) 2. changes of compounds while processing 3. the impact of variety and harvest date on the quantity and quality of fruit juice 4. the most important requirements on room, equipment and procedure necessary for juice production (mashing, squeezing, clarification, pasteurization) 5. methods and recipes of juice production 6. the most important microorganisms for juice production 7. the principles of microorganism-growth and -prevention 8. the general techniques of juice conservation 9. hot filling technology 10. the demands of labelling fruit juice 	<p>SKILLS</p> <p>He/she is able to</p> <ol style="list-style-type: none"> 1. give basic information about the composition of the juice 2. explain the nutritional and dietary properties of fruit 3. choose suitable fruit species and varieties for juice production 4. define the perfect harvesting date 5. discard unusable fruits 6. choose the appropriate method and machines for fruit juice production 7. use machines correctly 8. apply given recipes and adapt them if necessary 9. find further information about machines and equipment 10. choose appropriate conservation methods 	
<p>COMPETENCES</p> <ol style="list-style-type: none"> 1. He/she produces fruit juice autonomously and on own responsibility with a given or a varied recipe and method. 2. He/she selects and applies appropriate technology to fruit juice production. 3. He/she autonomously realizes main hazards in juice production and copes with these hazards. 		