1) Quale atto dell'università regola la gestione amministrativa, contabile e finanziaria delle università?

- Illustra lo schema di lavoro per la selezione di una nuova varietà in una specie a tua scelta
- Fasi della preparazione del polline per una stagione di incroci

2) Chi è il legale rappresentante dell 'Università e quanto dura il suo

- Fasi della certificazione varietale
- Strumenti necessari per l'allestimento di un laboratorio di analisi qualitativa dei prodotti agricoli

3) Qual è l'organo titolare della complessiva gestione e organizzazione dei servizi, delle risorse strumentali e del personale tecnico-amministrativo dell'Ateneo?

- Uso delle schede pomologiche: finalità e applicazioni
- Strategia di protezione delle proprietà intellettuale delle piante

4) Secondo il Regolamento d'Ateneo per l'amministrazione, la finanza e contabilità quale organo può autorizzare l'esercizio provvisorio in caso di necessità e per quanto tempo?

- Panel e Consumer Test spiega le differenti finalità vantaggi e svantaggi dei due approcci
- Gestione dei semenzali derivati da una stagione di incroci in serra

5) In base al Legge 240/2010 quali sono gli organi dell'Università?

- Vantaggi e svantaggi della selezione clonale
- Fattori importanti per l'ottimizzazione di un ambiente in serra.

6) Che cos'è il Nucleo di Valutazione?

- Incroci intra e inter-specifici: potenzialità e applicazioni
- Vantaggi e svantaggi della gestione di una prova sperimentale in serra

7) Cos'è il Collegio dei revisori dei conti?

- Miglioramento genetico per caratteri monogenici in specie allogame
- Analisi non distruttive della qualità della frutta

8) Da quale organo è approvato il regolamento didattico di Ateneo?

- Caratteri monogenici e poligenici nelle specie arboree
- Analisi distruttive della qualità della frutta

9) Quale organo dell'Ateneo ha tra le sue funzioni quella di formulare proposte e pareri obbligatori in materia di didattica, di ricerca e di servizi agli studenti ?

- Schema di lavoro per la selezione di una nuova cultivar
- Strategie di difesa contro un patogeno a tua scelta

10) Qual è il numero minimo di professori e ricercatori afferenti necessario per la costituzione di un Dipartimento?

- Cosa sono i test DUS
- Propagazione agamica delle piante

11) Quale organi dell'Ateneo approva il Codice Etico?

- Principali obiettivi del miglioramento genetico nelle pomacee
- Vantaggi e svantaggi del diradamento chimico

12 Quale Ente sovraintende e cura la valutazione esterna della qualità delle attività delle Università e degli Enti di Ricerca destinatari di finanziamenti pubblici e indirizza le attività dei Nuclei di valutazione?

- Imposta una stagione di incroci per il miglioramento genetico per una resistenza a un patogeno in una specie a tua scelta
- Vantaggi e svantaggi del diradamento meccanico

13) Quale organo dell'Ateneo approva i regolamenti in materia di didattica e di ricerca a maggioranza assoluta dei suoi componenti ?

- Principali obiettivi del miglioramento genetico nelle drupacee
- Strategie di difesa contro insetti

ALL N.3

Apple farming systems - current initiatives and some prospective views on how to improve sustainability

Apple cultivation has evolved tremendously in past decades. Both apple productivity and aesthetic quality of the fruit have been strongly improved resulting from genetic improvement, optimization of tree training and pruning, and orchard design and management. However, these improvements were also done at the expense of an increasing dependence on external inputs such as water, fertilizers and synthetic pesticides.

Keywords per ricerca bibliografica:

Apple cultivar

Nutritional status of stone fruit trees on dwarfing and vigorous rootstocks under warm Mediterranean conditions

Fruit tree orchards are usually based on a combination of scion and rootstock. The new management trend toward orchard intensification requires rootstocks that reduce tree vigour to control tree size. For stone fruits, newly released dwarfing rootstocks (Rootpac® 20 and Krymsk® 1) were tested in a high density planting with the well-adapted but vigorous Garnem rootstock. Two experimental orchards of almond and peach were selected in a warm production area in northern Tunisia.

Keywords per ricerca bibliografica:

Dwarfing rootstocks

Strategies for producing temperate tree fruit under increasing winter temperatures

Temperate deciduous fruit tree species such as apple, pear, cherry, and peach require dormant season cool temperatures to complete endodormancy so that flowers set and leaves emerge normally in the spring. Recent global rises in mean annual temperatures have increasingly resulted in marginal winter cold in traditional fruit production areas where many fruit tree cultivars risk poor flower set and irregular vegetative budbreak.

Keywords per ricerca bibliografica:

Dormancy in fruit trees

Variance components of fruit quality - a 'Golden Delicious' case study in South Africa

Fruit maturity and fruit quality are important horticultural parameters that are of commercial value and demanded by the consumer. The identification and magnitude of the factors contributing to fruit-to-fruit variability in maturity and quality are not always known to the producer and this missing information may complicate decision making and optimisation of pre-and postharvest practises. To analyse the variability in fruit maturity and quality, 14 'Golden Delicious' orchards were selected in each of two climatic contrasting areas and five variables (starch conversion, firmness at harvest, firmness after storage, lightness at harvest and lightness after storage) were measured on all the fruits from two scaffold branches (top and bottom of the tree).

Keywords per ricerca bibliografica:

Fruit maturity

Relative stability of peach plants to acid stress

Oxides of sulfur and nitrogen cause air contamination and have a strong oxidation effect. There is a possibility to oppose this effect on a plant. It connects with the activity of the antioxidant system. It is an ability to inhibit the process of free radical oxidation. Ascorbic acid and glutathione are important components of this system in the plant as they are able to support redox reactions. But the role of these substances and degree of their changes in fruit plant tissues in condition of air contamination lack investigation.

Keywords per ricerca bibliografica:

Oxydative stress

Fruit water content: a benefit in the fruit carbohydrate accumulation simulation

Carbohydrates are major assimilates determining fruit growth and quality, either as raw materials for growth or as carbon reserves for quality. Fruit water content, an indicator of water status in fruit, is closely related to fruit carbohydrate metabolism. A process-based model (Génard and Souty, 1996; Génard et al., 2003) was adapted to simulate carbohydrate accumulation during fruit growth under different cultivation practices. Two models were developed by integrating the possible effect of fruit water content.

Keywords per ricerca bibliografica:

carbohydrate accumulation

The effects of cultivar and training system on vegetative growth of mango (*Mangifera indica*) orchards in Far North Queensland

Understanding how and why canopy structural growth imposes productivity limitations is critical to managing high yielding, regular bearing mango (*Mangifera indica*) orchards. This study aimed to see how vegetative and reproductive growth responds to canopy management including bending. To investigate the relationship between shoot architecture, flowering and fruiting we measured structural, functional and temporal patterns of branching and flowering at the tree, scaffold and growth unit levels.

Keywords per ricerca bibliografica:

Tropical fuit species

Testing the effect of different light environments and water shortage on apple physiological parameters and yield

The effect of different light environments on 'Imperial Gala' apple yield and several physiological parameters were evaluated in 2013 by placing over the trees nets with different levels of shading and colour (black, 20% shading, red and white, 50% shading). A fourth plot was left uncovered. Each net was combined with two irrigation treatments for 60 days before harvest: no stress and moderate stress. Irrigation was applied to achieve specific levels of water stress and was managed using midday stem water potential (mSWP) thresholds

Keywords per ricerca bibliografica:

Water stress

Future opportunities for crop physiology in fruit production

This paper outlines some of the challenges and opportunities for whole plant and crop physiologists to contribute to enhanced and more efficient fruit production in the coming years. The rapid advances in molecular biology provide both an opportunity (especially to improve understanding of physiological processes in crop production) and a challenge (to use this knowledge to advance production in real farm situations).

Keywords per ricerca bibliografica:

Crop production

High density pear planting in Belgium

In pear growing there is a clear evolution towards intensive planting systems with 2,500-3,000 trees ha^{-1}. Most of the pear trees are grafted on 'Quince C' rootstock or on quince 'Adams' when more vegetative growth is needed on replant orchards. New quince selections like quince 'Eline' are in development recently and show interesting differences in frost susceptibility. There is a growing interest in trellis training systems with many orchards trained as a V system with four fruiting branches developing on one central stem. In the fruit tree nursery, well-feathered two-year-old trees are developed specifically for this planting system with 4 leaders.

Keywords per ricerca bibliografica:

High density planting

Effects of irrigation on development and photosynthesis of young apple trees

Irrigation is not common in apple orchards in Germany. Nevertheless, it is likely to become much more important in the future as climate change intensifies. To study the effects of irrigation on young apple trees, a field trial was conducted during 2012 and 2013 in Geisenheim, Germany. Trees of 'Fresco' (Wellant™), 'Jugala' and 'AW 106' (Sapora™) apples (*Malus* × *domestica* Borkh.) were planted in autumn 2011. The aim of the study was to quantify how water deficit and irrigation affect the development and establishment of young apple trees and then integrate this knowledge into the carbon balance model MaluSim developed by Lakso et al. Starting in 2012.

Keywords per ricerca bibliografica:

Apple photosynthesis

Apricot breeding for late flowering in Nikita Botanical Gardens

Adaptation to environmental conditions is one of the main reasons limiting apricot plants introduction into various climatic zones. Cultivars characterized with late flowering most often avoid damages from spring frosts. The aim of the presented research was to study flowering dates of the apricot genotypes to select promising ones for their cultivation in areas with changeable weather conditions and also to use them in further breeding experiments. The plants of 32 cultivars and bred genotypes were studied during 2015-2017.

Keywords per ricerca bibliografica:

Late flowering

Collection, characterization and conservation for sustainability of traditional local pepper genotypes

Traditional peppers (*Capsicum annuum* L.) are grown in different types and shapes in different local regions in Turkey. They have significant genetic diversity for processing and consumption. The development and certified seed production of pepper cultivars from local populations are becoming increasingly necessary. This study reports on the collection, morphological characterization and conservation of traditional local pepper genotypes. A total of 50 domestic pepper genotypes were collected from several regions ranging in altitudes from 2 to 1210 m in Turkey. Morphological characterization of the 50 genotypes was done in the spring season in a greenhouse in Bati Akdeniz Agricultural Research Institute (BATEM).

Keywords per ricerca bibliografica:

Local varieties and sustainability