

EPOS Intensive Study Programme - final exam questions



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Carotenoids are essential for human health because: **(1 choice)**
they increase LDL cholesterol in blood; **0**
they have anti-inflammatory and anti-cancer properties; **0**
they are not free radical scavengers; **0**
they prevent plaque formation in blood vessels. **0**

The best source of lycopene in our diet are: **(1 choice)**
fresh tomato fruits as well as cherry tomato; **0**
fruits as: apricot, watermelon and blood orange; **0**
tomato products as: dry tomato soup, tomato juice, ketchup; **0**
green leafy vegetables as kale, kohlrabi, cabbage, spinach. **0**

Vitamin C benefits for human health are: **(1 choice)**
it may help to reduce the allergy symptoms (it has natural antihistamine properties); **0**
it stops synthesis of toxic nitrosoamines in human stomach; **0**

it facilitates assimilation of non-hem iron by human organism and takes part in blood cells synthesis; **0**
all answers are true; **0**

According to a growth-differentiation balance hypothesis (GDBH): **(1 choice)**
plants in organic cultivation grow faster and give higher yields **0**
plants in conventional cultivation produce more bioactive compounds and grow faster **0**
plants in organic cultivation grow slower, but produce more bioactive compounds **0**
plants grow first, then start to produce bioactive compounds. **0**

Please select the proper combination of bioactive compounds which significance for health is great and which content in organic vegetables and fruits is considerably higher than in the conventional produce: **(1 choice)**
vitamin C, polyphenols, reducing sugars **0**
beta-carotene, lutein, lycopene **0**
vitamin B6, vitamin A, falcarinol **0**
total sugars, solanine, vitamin D. **0**

Select a proper answer: **(1 choice)**

human health depends in 10% on lifestyle, in 54% on medical service activity, in 16% on genetic background **0**

human health depends in 54% on lifestyle, in 10% on medical service activity, in 16% on genetic background **0**
human health depends in 16% on lifestyle, in 35% on medical service activity, in 21% on environmental conditions **0**
human health depends mainly on other factors than lifestyle. **0**

Select a proper set of food contaminants coming mostly from the conventional methods in agriculture, animal production and processing: **(1 choice)**
lead, pesticide residues, antibiotics, hormones **0**
nitrates, nitrites, pesticide residues, antibiotics **0**
mercury, aromatic hydrocarbons, mycotoxins, nitrosamines **0**
dioxins, PCBs, acrylamide, hormones. **0**

Country in which the level of pesticide residues in organic produce is the highest is: **(1 choice)**
Belgium **0**
Poland **0**
Sweden **0**
US. **0**

There is a high probability that pesticides contained in food are responsible for the following health problems of modern society: **(1 choice)**

obesity, atherosclerosis, bulimia, anorexia	0
hypospadias, hormonal disorders, drop in quantity and quality of sperm in men, cancers	0
rickets, anemia, sickle-cell anemia, bronchitis	0
pneumonia, tooth decay, malaria, cholera.	0
According to the consumer preferences organic plant produce such as carrot, apples and potatoes:	(1 choice)
taste less than conventional, because they are more sour and have less distinct taste	0
taste better than conventional, because they are sweeter and have more distinct smell	0
taste exactly the same like conventional produce	0
are tasty only for the vegetarians and vegans.	0
The concept of environmental integration of human activities	(2 choices)
tries to correct economic effects	0
is applied only to industrial activities	0
tries to prevent and correct environmental effects	0
can be applied to agriculture	0
The context in which environmental integration should be developed	(1 choice)
has not changed in the past decades	0
must consider relevant issues like climate change or population growth	0
has become old fashioned since 60s	0
only considers economic drivers	0
The agricultural land	(3 choices)
is decreasing in most developed countries	0
is decreasing in the world	0
is increasing in China and other countries with intense economic growth	0
is decreasing in Europe	0
is increasing in the poles	0
Negative environmental effects of agriculture	(2 choices)
can be caused by loss of cultural diversity and traditional knowledge	0
are caused by increasing organic farming	0
are caused only by intense use of pest and fertilizers	0
can be caused by landscape simplification or soil degradation	0
A strategy to environmental integration of agriculture	(3 choices)
is the developing of organic farming in urban areas	0
is a high risk financial product related with agricultural markets	0
is a better management of organic matter content of soils	0
is to promote livestock productions because they reduce greenhouse emissions	0
could be more informed and active consumers	0
Which one of these claims describes best organic food and farming when compared with conventional food and farming?	(1 choice)
It is a decentralised and low-input form of agriculture	0
It is similar to ecologically intensive agriculture	0
It is close to GM foods	0
It is an old fashioned production mode	0
Why do we have certification industry for organic food products?	(1 choice)
The governmental regulations dictate that organic production mode must be verified for marketing	0
Certification industry needs farmer's payments	0
Farmers like the certifiers' support for and visits to their farms	0
Consumers want that all food products have to be certified	0
If organic expansion often follows an S-curve, governments should	(1 choice)
stop spending money on erratic efforts for organic expansion	0
wait for the expansion to take off naturally	0

wait for the results of strategic research and development endeavours to benefit society	0
leave the organic food and farming developments to market forces	0
Consumers often have mixed understanding about organic food and farming because	(1 choice)
Consumers know that organic agriculture is very variable	0
Agricultural knowledge and practices are of no interest to them	0
Consumers are unwilling to learn about organic food and farming	0
Consumers experience difficulties in judging agricultural knowledge and practices	0
Supermarkets have an important role in educating consumers about organic food and therefore	(1 choice)
Supermarkets should try to increase their margins through organic sales	0
They should try to develop marketing strategies to promote organic food	0
They should leave it to consumers' decisions what to buy	0
They should look for help from public educational courses	0
Slurry	(2 choices)
can be applied throughout the year	0
carries an environmental risk	0
can be applied to each crop	0
should ideally be applied under dry conditions	0
applied to the soil tends to volatilize ammonium very quickly	0
Onions and cabbages are S demanding crops. Which fertilizers would be suitable to meet these specific requirements?	(3 choices)
Rock phosphate	0
Lime	0
Kieserite	0
Composts	0
Potassium sulphate	0
Potassium chloride	0
Questionable items in Annex I of the EU declaration 889/2008	(3 choices)
processed organic N fertilizers without declared origin	0
N limitation for the application of purchased manure & slurry	0
Guano	0
processed organic N fertilizers without restricted quantities of amendment	0
Internal & external nutrient cycles of a farm. Find the right combinations (i.e. D4)	(3 choices)
A Horizontal cycles 1 are field-based	0
B Vertical cycles 2 are feed- & fertilizer-based	0
C Regional cycles 3 are farm-based	0
D Global cycles 4 are compost-, manure- & slurry-based	0
Which P sources would be recommendable to compensate a visible P deficiency?	(5 choices)
Rock phosphate	0
Bone meal	0
Blood meal	0
Silicate rock dust	0
Slurry	0
Manure	0
Lime	0
Composts	0
Biogas residues	0

According to the results of a large prospective study carried out recently in the United Kingdom organic food consumption was associated with:	(1 choice)
lower incidence of non-Hodgkin lymphoma in women	0
a reduction in the incidence of obesity and cancers in men	0
an increase of the incidence of soft tissue sarcoma and breast cancer	0
lower blood pressure and better overall health status of women	0
Meta-analysis:	(2 choices)
aggregates information in order to achieve a higher statistical power for the measure of interest	0
is an innovative technique of laboratory analysis	0
is a statistical technique for combining findings from independent primary studies	0
is a systematic literature review	0
According to the recently published results of the meta-analysis of Baranski et al. (chose one)	(1 choice)
organic milk contains less n-3 fatty acids compared to the conventionally produced milk	0
organic crops, on average, have higher concentrations of antioxidants and a lower incidence of pesticide residues than the non-organic comparators, across regions and production seasons	0
literature shows that conventional fruit and veg contain 10 times higher levels of pesticide residues and heavy metals compared to organic fruit	0
Organic fruits are highly contaminated with cadmium	0
GMO varieties are:	(1 choice)
are strictly prohibited in organic farming	0
can be used by farmers without limitations	0
Can be grown once you ask local Ministry of Agriculture for permission	0
Alternative (hulled or ancient) wheat species are:	(1 choice)
Bread wheat, hard wheat and einkorn wheat	0
Bread wheat, spelt wheat and emmer	0
Einkorn, emmer and spelt wheat	0
VCU testing of varieties means:	(1 choice)
Value of Crops Use	0
Value for Cultivation and Use	0
Variety Cereal Utilisation	0
Organic farmers can use following seed (based on current EU legislation):	(1 choice)
Organic certified seed, farm saved seed, untreated conventional seed	0
Organic certified seed and farm saved seed	0
Organic certified seed	0
During the modern breeding was changed share of straw and grains in case of cereals:	(1 choice)
Modern varieties have 50% of straw and 50% of grains	0
Modern varieties have 75% of straw and 25% of grains	0
There was no change during breeding last 100 years	0
A father of the organic agriculture in the German speaking countries was:	(1 choice)
Ehrenfried Pfeiffer	0
Hans Mller	0
Rudolf Steiner	0
Hans Peter Rusch.	0
A father of the organic agriculture in the English speaking countries was:	(1 choice)
Robert Mc Carrison	0
Albert Howard	0
Rachel Carson	0
Evelyn Barbara Balfour.	0

Please select the proper answer. Concept of "Wheel of Health":	(1 choice)
has been developed by Robert Mc Carrison and presented the holistic view on the healthy food chain	0
has been developed by Rachel Carson and presented the ecological problems of the XX the century	0
has been developed by Rudolf Steiner and presented the biodynamic concept of farming	0
has been developed by Thomas Foster and presented the modern tool for the organic soil cultivation.	0
Please select the proper characteristics of the biodynamic agriculture:	(1 choice)
it is completely different than organic agriculture	0
it is in the fact close to the conventional agriculture, as some synthetic pesticides are allowed	0
it is basically the same as organic agriculture with the addition of the astral calendar and special preparations	0
it is the old, ancient farming system used in Egypt, China and Mexico.	0
Please select the proper sentence. IFOAM (International Federation of the Organic Agriculture Movements):	(1 choice)
was founded in 1999 and has at present about 100 members	0
was founded in 1955 and has at present about 1000 members	0
was founded in 1985 and has at present about 300 members	0
was founded in 1972 and has at present about 800 members .	0
What are the effects on C cycle of the mulching with legume crops?	(1 choice)
It decreases the biomass production of main crops	0
It decreases significantly the soil moisture favoring the microbial pool	0
It increases soil carbon flux and soil organic matter favoring positively the carbon balance	0
It reduces the soil CO2 emissions	0
What are the main factors affecting soil carbon stock in the agroecosystems?	(1 choice)
Tillage, fertilization, moisture, and temperature	0
Crops and weeds	0
Precipitations and solar radiation	0
Typology of machinery and their utilization intensity	0
Why the practice of the both organic fertilization and crop residues management can help in mitigating the GHGs emissions?	(1 choice)
Because it increases the production quality of main crops	0
Because it affects soil moisture eliminating the needing of irrigation	0
Because it reduces pest and disease and so the using of pesticides	0
Because it affects positively the increasing of soil organic matter and so the C stock	0
Which of the following effects are determined by green manuring practice with leguminous such as the vetch?	(1 choice)
It decreases the soil organic matter	0
It decreases the soil C/N, promotes CO2 emission, enzyme activity and nitrogen release	0
It promotes the cycle and production of weeds	0
Increases the evapotranspiration during the subsequent crop cycle	0
The increasing of soil carbon stock through the systematic application of the whole agronomic practices is due to:	(1 choice)
the deep and intense soil tillage and irrigation applied	0
the optimization of organic fertilizers applied; the improvement of organic waste processing; the long crop rotations, intercropping, legume crop and cover crop adopted.	0
the presence of vegetable crops in the farm	0
the big amount of biomass derived from weeds which grow with crops	0

Water used by people is in agriculture used from:	(1 choice)
11%	0
25%	0
33%	0
50%	0
66%	0
The share of greenhouse gases emissions from agriculture on total GHG emissions is in EU:	(1 choice)
6.20%	0
8.00%	0
9.20%	0
14.00%	0
20.20%	0
Harmony of landscape is:	(1 choice)
Part of objective evaluation of landscape	0
Part of subjective evaluation of landscape	0
Isn't part of evaluation of landscape	0
The strongest erosion is on fields with:	(1 choice)
Clover	0
Wheat	0
Maize	0
Highest share of natural landscape was transformed into agricultural landscape:	(1 choice)
In 18th and 19th century	0
Between 1895 and 1940	0
Between 1945 and 2010	0
It is close to GM foods	0
It is an old fashioned production mode	0
The commonest realized form of the relationship between biodiversity and function is	(1 choice)
Idiosynctronic	0
Negative	0
Linear positive	0
Linear saturating	0
Which hypothesis states that diverse systems have greater probability of containing species suited to the changed prevailing conditions	(1 choice)
Redundancy	0
Insurance	0
Rivet	0
Complementarity	0
The concept of ecosystem services is	(2 choices)
A tool for sustainable use of biotic resources	0
A scientific concept	0
A conservation tool	0
System of payments	0
We can state that certified organic agriculture generally	(2 choices)
improves delivery of some ecosystem services at expense of others	0
has as much relevance to ecosystem services than conventional agriculture	0
improves delivery of all ecosystem services	0
depends on ecosystem services to a larger degree than conventional agriculture	0

The term ecosystem services refers to a wide range of conditions and processes through which natural ecosystems sustain all life	(1 choice) 0
through which humans improve the quality of ecosystems	0
through which humans benefit financially by modifying ecosystems	0
through which ecosystems sustain and fulfill human life	0
What of the following weed management strategies is environmental friendly and comply with the need for sustainability?	(1 choice)
Conventional weed control strategies;	0
Guided weed control strategies;	0
Integrated chemical control strategies;	0
Integrated non-chemical control strategies.	0
Cover cropping is:	(1 choice)
Agronomical means for weed control;	0
Cultural means for weed control;	0
Physical means for weed control;	0
Mechanical means for weed control.	0
Flame weeding is:	(1 choice)
Agronomical means for weed control;	0
Cultural means for weed control;	0
Physical means for weed control;	0
Mechanical means for weed control.	0
Crop plant density is:	(1 choice)
Agronomical means for weed control;	0
Cultural means for weed control;	0
Physical means for weed control;	0
Mechanical means for weed control.	0
Which of the following characters are not responsible for higher competitive ability in crop genotypes?	(1 choice)
Plant height;	0
Erect growth habit;	0
Crop yield;	0
Early vigour.	0
What are the types of research according to the information?	(1 choice)
Two: Secondary and Primary	0
Two: Qualitative and Quantitative	0
Three: Primary, Secondary and Tertiary	0
Two: Regular and in-depth	0
What are the characteristics of emerging organic markets?	(2 choices)
Start from a low level	0
Slight increase of sales	0
Rapid market growth	0
Steady market growth	0
What are the 4Ps of the marketing mix?	(1 choice)
Product, Process, Price and Promotion	0
Product, Process, Packaging and Personnel	0
Product, Price, Place and Promotion	0
Product, People, Package and Promotion	0

Which one/s of the following flows are part of the value chain scheme?	(3 choices)
Information flow	0
People / jobs flow	0
Financial flow	0
Goods / services flow	0
Some of the factors that affect the food value chain performance are:	(4 choices)
Food policy	0
Language and religion	0
Firm structure	0
Environmental conditions	0
Organic / non organic product	0
Research and development	0
What are the common points for organic food production, fair trade, slow food, regional and traditional products & local food?	(1 choice)
they all increase the sustainable development of rural areas, safety of the consumers and protection of the small producers	0
they all forbid completely the use of the synthetic pesticides and fertilizers in the fields	0
they all base only on the old, traditional cultivars of the plants and breeds of animals	0
they all decrease the employment of the local workers in the farm enterprises	0
What are the main factors affecting the nutritional value of slow food products?	(1 choice)
production with the use of the advanced technology methods as: mixing, grating, frying, using high pressure food produced with the highest possible speed and efficiency with the use of high energy input over the whole production chain	0
production process is fully controlled and certified by specially organized units called "Arks of Taste"	0
production using only traditional methods with total exclusion of the advanced food production technologies; food additives are not used in the production process	0
Complex products to get Fair Trade certificate must contain:	(1 choice)
in dry matter more than 20% of components coming from certified Fair Trade producers	0
in dry matter more than 50% of components coming from certified Fair Trade producers	0
more than 50% of the volume of components come from certified Fair Trade producers	0
at least 95% of the volume of components come from certified Fair Trade producers	0
In which characteristics is ecosystem on an organic farm more similar to a natural ecosystem compared to ecosystem on a conventional farm?	(2 choices)
Larger number of crops, varieties and species (higher biodiversity)	0
Greater landscape heterogeneity	0
Greater abundance of dominant insect species	0
The preventive plant protection measures in organic farms are:	(1 choice)
Removing of damaged plants, picking off the insect pests	0
Using fire (flaming) to control weeds	0
Conservation and enhancement of biodiversity	0
Trap crop strategy is:	(1 choice)
The planting of a trap crop to protect the main culture from pests	0
The planting of a crop that is less attractive to the pests than cash crop to lure them toward an attractive source	0
The planting of cultures what are more attractive to costumers	0
Biological control method is based on the use of	(1 choice)
Organic pesticides	0
Antagonists of plant pests and diseases, and modifying behavioural reactions of pests	0
Alien invasive species	0

The chemical control of pests is not allowed in organic farming.	(1 choice)
It is true, because most plant protection products are synthetic and it is not permitted to use these products	0
It is false, because it is allowed to use certain plant protection products which are mainly of natural origin	0
It is false, because it is allowed in certain heavy pest conditions and with license of the local authorities	0
What can you find in the EU regulations on organic agriculture concerning animal transport?	(1 choice)
electrical stimulation during loading is not allowed	0
animals should have more space allowance than normal	0
duration of transport should be minimized to 8 h	0
no injured animals should be transported	0
it is prohibited to strike or kick animals	0
Which are animal-based indicators for animal welfare?	(3 choices)
average space allowance per animal	0
retention rate	0
body condition score	0
occurrence of abnormal behavior	0
feed composition	0
What is correct if we talk about animal welfare?	(2 choices)
the five freedoms define an ideal state of animal welfare	0
animal welfare should not be measured comparative	0
animal welfare can be measure easily by animal production	0
stress is always bad for animal welfare	0
animal welfare evaluates the risk for pain and suffering and the potential for wellbeing of the animal	0
What could be added to the EU regulations on organic agriculture to improve animal welfare?	(3 choices)
thresholds for animal-based welfare indicators	0
detailed information on space allowances for different species	0
rules to increase animal welfare during slaughter	0
rules to increase animal welfare during transport	0
define the roughage amount, which should be fed to cattle	0
Where are differences comparing conventional and organic animal husbandry?	(3 choices)
litter in the lying area in cattle	0
outdoor access for poultry	0
amount of concentrate feeding in pigs	0
handling during slaughter	0
pain relief during dehorning of calves	0
Select a true statement:	(1 choice)
in organic production crop yields are usually lower and animal production can be less efficient than in conventional farms	0
organic crops contain as a rule less dioxins than conventional crops	0
organic products contain as a rule more Salmonella and Campylobacter bacteria	0
organic farming requires less work than conventional one.	0
Milk coming from organically raised cows in comparison to a milk from conventionally raised cows contained:	(1 choice)
less dangerous pathogenic bacteria, but more bacteria of Coli type	0
more dangerous pathogenic bacteria and more bacteria of Coli type	0
less dangerous pathogenic bacteria and less bacteria of Coli type	0
very similar amount of bacteria of all kind.	0

Select the appropriate combination of diseases which occurrence in cows from organic husbandry is considerably rarer than in cows from conventional husbandry: **(1 choice)**

brucellosis, leukaemia, tuberculosis **0**

ketosis, milk fever, arthritis **0**

spongy brain degeneration, hoof-and-mouth disease, chlamydiosis **0**

leptospirosis, trichomonosis, bovine viral diarrhea, tick-borne meningoencephalitis. **0**

Please find the proper statement among given below. Meat from organic husbandry: **(1 choice)**

has lower content of total fat in the carcass than meat from the conventional production **0**

has mostly worse sensory quality than conventional meat **0**

has lower mass of the breast and drumstick muscles in poultry carcasses and ham and sirloin in pork carcasses than conventional meat **0**

has definitely higher n-6/n-3 ratio than conventional meat. **0**

Small laboratory animals (rats, mice, rabbits) fed organic fodder: **(1 choice)**

had as a rule worse parameters of fertility and survival rate than animals fed conventionally **0**

had as a rule better parameters of fertility and survival rate than animals fed conventionally **0**

had as a rule similar parameters of fertility and survival rate than animals fed conventionally **0**

died as a rule before achieving sexual maturity. **0**