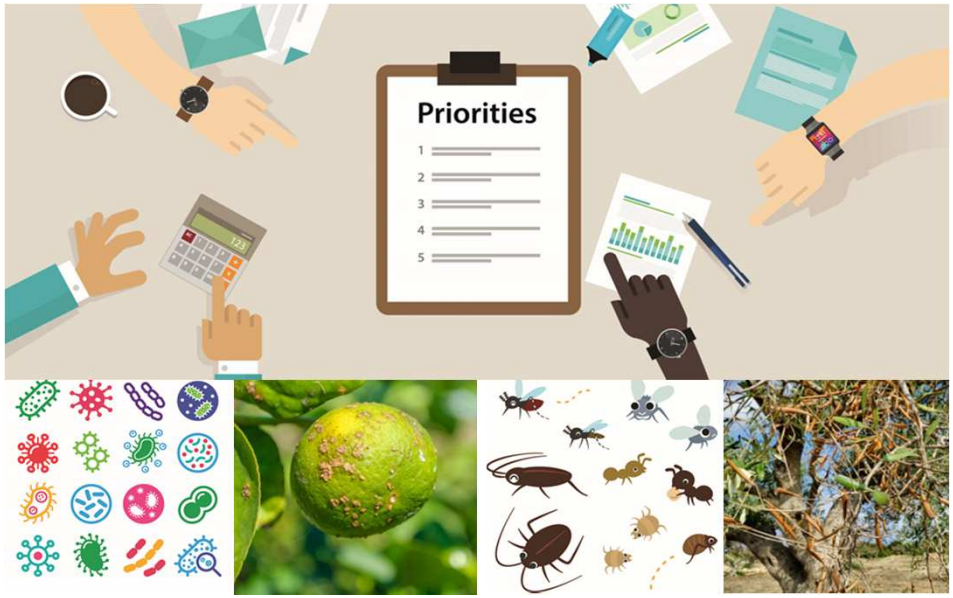
Agenda item #3: Outcome of the application of the methodology to the list of Union quarantine pests qualifying as potential priority pests.



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European Commission
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Unit D.4 Economics of Agriculture

Expert Group Meeting on Plant Health Legislation – Brussels April 24th 2019

European Commission

How to identify measurable indicators?

OECD and JRC-COIN steps!

We are (*nearly*) done!

Indicators selection	Quantitative or qualitative measures
Data selection	Measuring indicators based on available statistics and experts
Normalization	Allows comparing indicators with different scales; dimensions or units
Weighting	To aggregate indicators based on weights set by the Legislator(s)
Uncertainty of data	Probabilities and sensitivity analysis

I2P2 Crops

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17 pests assessed

2 pending

Tilletia i.	*Xanthomonas c.*	*Phyllosticta c.*	*Synchytrium e.*
Clavibacter m.	*Candidatus l.*	*Flavescence d.*	*Sprodoptera f.*
Ralstonia s.	*Anastrepha l.*	*Rhagoletis p.*	*Popillia j.*
Bactrocera d.	*Bactrocera z.*	*Bactericera c.*	*Antonomus e.*
Xylella f.	**Thaumatotibia l.**	**Thrips p.**	

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RANKING

Group #1 I2P2 > 0.35 + ranking 1st or 2nd for any domain
Group #2 I2P2 > 0.20 + ranking 1st to 5th for any domain
Group #3 I2P2 < 0.20 + ranking below 5th for any domain

	Rank	I2P2	ECO	SOC	ENV
Xylella fastidiosa (Pierce's disease)	1	0.8057	1	1	1
Popillia japonica (Japanese beetle)	2	0.5329	3	2	2
Candidatus liberibacter (Citrus greening)	3	0.3659	2	4	3
Bactericera cockerelli	4	0.2779	4	3	11
Anthonomu eugeni	5	0.2654	8	6	4
Rhagoletis pomonella (Apple maggot fly)	6	0.2562	5	9	8
Spodoptera frugiperda (Fall armyworm)	7	0.2373	7	7	9
Grapevine flavescence doree (Flavescence doree of grapevine)	8	0.1909	6	13	10
Anastrepha ludens (Mexican fruit fly)	9	0.1905	13	11	5
Ralstonia solanacearum (Bacterial wilt; Brown rot)	10	0.1871	10	5	14
Bactrocera dorsalis (Oriental fruit fly)	11	0.1864	15	8	6
Bactrocera zonata (Peach fruit fly)	12	0.1848	14	10	7
Xanthomonas citri (Citrus canker)	13	0.1215	17	15	12
Phyllosticta citricarpa (Black spot of citrus)	14	0.1158	16	16	13
Clavibacter michiganensis ssp. Sepedonicus (bacterial ring rot of p	15	0.1102	11	12	16
Tilletia indica (Karnal bunt of wheat)	16	0.1004	9	17	17
Synchytrium endobioticum (Wart disease of potato)	17	0.0903	12	14	15

Prioritization options			
1st 3 pests	*Xylella f.*	*Popillia j.*	*Candidatus l.*
1st pest for each domain	*Xylella f.*		
1st 2 pest for each domain	*Xylella f.*	*Popillia j.*	*Candidatus l.*

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Sensitivity analysis: crops

40 – 20 – 40

	I2P2		ECO	SOC	ENV
Xylella fastidiosa (Pierce's disease)	1	0.8005	1	1	1
Popillia japonica (Japanese beetle)	2	0.5597	3	2	2
Candidatus liberibacter (Citrus greening)	3	0.3855	2	4	3
Bactericera cockerelli	4	0.2834	8	6	4
Anthonomu eugeni	5	0.2811	5	9	8
Rhagoletis pomonella (Apple maggot fly)	6	0.2796	4	3	11
Spodoptera frugiperda (Fall armyworm)	7	0.2524	7	7	9
Grapevine flavescence doree (Flavescence doree of grapevine)	8	0.2166	6	13	10
Anastrepha ludens (Mexican fruit fly)	9	0.2091	13	11	5
Ralstonia solanacearum (Bacterial wilt; Brown rot)	10	0.1972	14	10	7
Bactrocera dorsalis (Oriental fruit fly)	11	0.1970	15	8	6
Bactrocera zonata (Peach fruit fly)	12	0.1725	10	5	14
Xanthomonas citri (Citrus canker)	13	0.1344	17	15	12
Phyllosticta citricarpa (Black spot of citrus)	14	0.1308	16	16	13
Clavibacter michiganensis ssp. Sepedonicus (bacterial ring rot of potato)	15	0.1170	9	17	17
Tilletia indica (Karnal bunt of wheat)	16	0.1150	11	12	16
Synchytrium endobioticum (Wart disease of potato)	17	0.0966	12	14	15

1st 2 pests	NO CHANGE
1st pest for each domain	NO CHANGE
1st 2 pest for each domain	NO CHANGE

50 – 25 – 25

	I2P2		ECO	SOC	ENV
Xylella fastidiosa (Pierce's disease)	1	0.760	1	1	1
Popillia japonica (Japanese beetle)	2	0.494	3	2	2
Candidatus liberibacter (Citrus greening)	3	0.382	2	4	3
Bactericera cockerelli	4	0.289	4	3	11
Anthonomu eugeni	5	0.272	5	9	8
Rhagoletis pomonella (Apple maggot fly)	6	0.260	8	6	4
Spodoptera frugiperda (Fall armyworm)	7	0.242	7	7	9
Grapevine flavescence doree (Flavescence doree of grapevine)	8	0.209	6	13	10
Anastrepha ludens (Mexican fruit fly)	9	0.195	10	5	14
Ralstonia solanacearum (Bacterial wilt; Brown rot)	10	0.170	13	11	5
Bactrocera dorsalis (Oriental fruit fly)	11	0.165	14	10	7
Bactrocera zonata (Peach fruit fly)	12	0.163	15	8	6
Xanthomonas citri (Citrus canker)	13	0.136	9	17	17
Phyllosticta citricarpa (Black spot of citrus)	14	0.125	11	12	16
Clavibacter michiganensis ssp. Sepedonicus (bacterial ring rot of potato)	15	0.109	17	15	12
Tilletia indica (Karnal bunt of wheat)	16	0.109	16	16	13
Synchytrium endobioticum (Wart disease of potato)	17	0.102	12	14	15

1st 2 pests	NO CHANGE
1st pest for each domain	NO CHANGE
1st 2 pest for each domain	NO CHANGE

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I2P2 Forestry

6 pests assessed

- *Agrilus a.*
- *Agrilus p.*
- *Ceratocystis f.*
- *Anoplophora g.*
- *Bursaphelencus x.*
- *Dendrolimus s.*

RANKING

Group #1 I2P2 > 0.50 + ranking 1st or 2nd for any domain
Group #2 I2P2 > 0.30 + ranking 1st or 2nd for any domain
Group #3 I2P2 < 0.30 + ranking below 2nd for any domain

	I2P2		ECO	SOC	ENV
Anaplophora glabripennis	1	0.58	5	1	1
AgrilusAnxius (Bronze birch borer)	2	0.34	2	2	5
Dendrolimus sibiricus	3	0.28	4	5	2
Bursaphelenchus xylophilus (Pine wood nematode)	4	0.25	3	3	3
Agrilus planipennis (Emerald ash borer)	5	0.23	1	4	6
Ceratocystis fagacearum (Oak wilt)	6	0.10	6	6	4

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Prioritization options

1st 2 pests	*Anoplophora g.*	*Agrilus a.*	
1st pest for each domain	*Anoplophora g.*	*Agrilus p.*	
1st 2 pest for each domain	*Anoplophora g.*	*Agrilus p.*	*Agrilus a.*
		Dendrolimus s.	

Sensitivity analysis: forest

40 – 20 – 40

	I2P2		ECO	SOC	ENV
Anaplophora glabripennis	1	0.570	5	1	1
Dendrolimus sibiricus	2	0.313	4	5	2
AgrilusAnxius (Bronze birch borer)	3	0.311	2	2	5
Bursaphelenchus xylophilus (Pine wood nematode)	4	0.258	3	3	3
Agrilus planipennis (Emerald ash borer)	5	0.249	1	4	6
Ceratocystis fagacearum (Oak wilt)	6	0.113	6	6	4

1st 2 pests — DS in / AA out

1st pest for each domain — NO CHANGE

1st 2 pest for each domain — NO CHANGE

50 – 0 – 50

	I2P2		ECO	SOC	ENV
Anaplophora glabripennis	1	0.555	5	1	1
Dendrolimus sibiricus	2	0.366	4	5	2
Agrilus planipennis (Emerald ash borer)	3	0.276	1	4	6
Bursaphelenchus xylophilus (Pine wood nematode)	4	0.271	3	3	3
AgrilusAnxius (Bronze birch borer)	5	0.263	2	2	5
Ceratocystis fagacearum (Oak wilt)	6	0.128	6	6	4

1st 2 pests — DS in / AA out

1st pest for each domain — NO CHANGE

1st 2 pest for each domain — NO CHANGE

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Thanks for your attention

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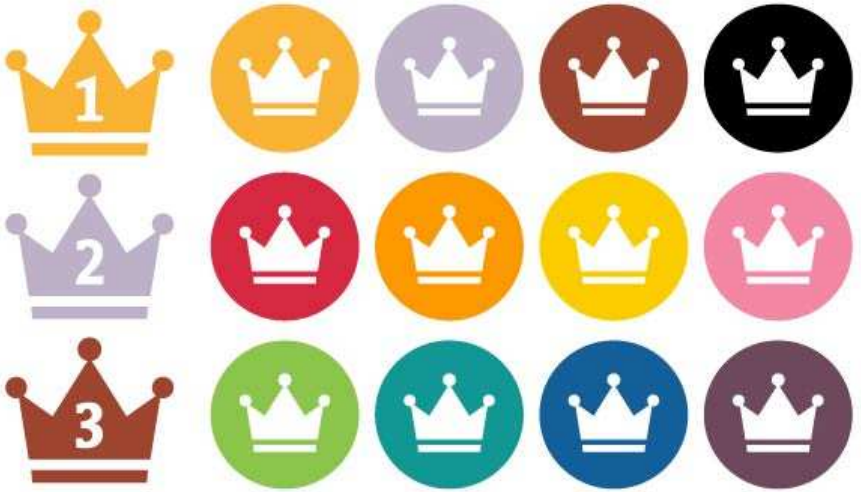

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