

California Seed Association

An Introduction to the International Seed Federation (ISF) Pest List Initiative

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International Seed Federation Pest List Initiative

How much money does your company spend on field inspections and seed health testing to satisfy Phytosanitary Additional Declarations for movement of seed around the world?



ISF Pest List Initiative Goal

Establish meaningful, science based, relevant pest lists for vegetable crops to facilitate the harmonization of phytosanitary requirements.

- http://www.worldseed.org/isf/pest_lists.html



ISF Pest List Initiative Origin

- Long history of development dating back to 2007.
- Born out of the need to have meaningful information on the risk of seed as the means for movement of pathogens.
- Lot of information used by National Plant Protection Organizations (NPPOs) is not based on scientifically sound information.
- Written comments on the proposal from USDA APHIS (the Center for Plant Health Science and Technology (CPHST) helped to frame the approach.



Introduction: ISF Pest List Initiative Origin

- Ad hoc Steering Committee established by the ISF Phytosanitary Committee with support from the ISF Vegetable and Ornamental Crop Section Board to develop pest lists -2011
- Current Steering Committee members:
 - Gerard Meijerink, Syngenta
 - John-Pieter Schipper, Bejo Zaden
 - Chuck Mouwen, Monsanto
 - Denis Lor, Consultant with Limagrain, French Seed Association
 - Radha Ranganathan, ISF Director of Technical Affairs
 - Jim Cucuzza, Monsanto, Technical Advisor



Pest List Process: How are Pest Lists Generated?

Based entirely on Phytosanitary AD requests:

- Accessing the national database of phytosanitary regulations maintained by some NPPOs
- A poll of companies generated a list of host-pathogen combinations requested of seed companies through Phytosanitary Additional Declarations (Phyto ADs)



Pest List Process: Overview

- Phyto AD list formulated into an Excel spreadsheet for particular crop
- 1st company review
- 2nd company peer review
- 3rd review and “standardization”
- Establish consensus on final information
- References checked and verified
- Post to ISF Website



Primary Question of the Pest Lists

“Is Seed a Pathway?”

USDA APHIS feedback on the concept in 2009:

“Regardless of what definitions or terms can be agreed to, this (seed as a pathway) is our primary concern. ...placement of pathogens in a category of seedborne vs. seed transmitted does not necessarily equate to a certain risk level. There is a range of risk for each category depending on the pathogen and export/import situation.”



ISF Pest List Current Status: First 12 Crops (~90% of the \$ Volume)

- Bean
- Brassica
- Carrot
- Cucumber
- Lettuce
- Melon
- Onion
- Pepper
- Spinach
- Squash
- Tomato
- Watermelon



ISF Pest Lists Current Status

- Posted 'on line' in the ISF pest list database:
 - Melon
 - Onion
 - Pepper
 - Spinach
- Completed final review:
 - Squash
 - Cucumber
- Completed final review, awaiting reference verification:
 - Lettuce



ISF Pest List Current Status

- Completed peer review and awaiting final review and “standardization” of language:
 - Carrot
 - Brassicas
 - Beans
- Peer review in progress:
 - Tomato
 - Watermelon



ISF Pest List Future Goals:

12 out of these 22 crops will be selected
for the next round of pest lists

- **Sweet corn**
- Table beets / Swiss chard
- Okra
- Leek
- Radish
- Eggplant
- Rocket
- Endive
- Corn salad
- Dill
- Artichoke
- Chicory/witloof
- Celery
- Parsley
- Fennel
- Asparagus
- Pea
- Runner bean
- Chives
- Parsnip
- Basil
- Broad bean



ISF Pest List Categories/Questions

- Species: Each pest list is for one species. Only exception is Cucurbita spp. (squash and pumpkin).
- Pest: type (bacterium, fungus, virus, etc.)/most common synonyms (on Phyto Ads).
- Pest classification: **Is seed a pathway?** Answer, references, remarks.
- Detection: **Is there a seed test?** Answer, test type, references, remarks.
- Risk Mitigation: **Managed by seed treatment?** Answer, treatment type, references, remarks.



ISF Pest List Instructions: Definitions

■ Is Seed a Pathway?

- Yes
 - Pathway not proven
 - Yes, but crop is not a host
 - No
 - Not a host
- If the answer is one of the first 3 then information on seed tests and seed treatments is included. If "No" or "Not a host" then no additional information included.



ISF Pest Lists

Time for a tour through the pest lists....



ISF Pest List Summary Information

4 on line pest lists: classification breakdown %s

<u>Pest Classification</u>	<u>Melon</u>	<u>Onion</u>	<u>Pepper</u>	<u>Spinach</u>
Yes	12%	7%	9%	21%
Pathway not proven	22%	13%	16%	8%
No	41%	44%	44%	34%
Not a host	25%	36%	31%	34%
Yes, but crop not a host	0	0	0	3%



ISF Pest List Summary Information

3 more completed lists: classification breakdown %s

<u>Pest Classification</u>	<u>Cucumber</u>	<u>Lettuce</u>	<u>Squash</u>
Yes	4%	5%	9%
Pathway not proven	9%	15%	17%
No	32%	55%	48%
Not a host	55%	25%	26%
Yes, but crop not a host	0	0	0



ISF Pest List Summary Information

7 completed pest lists

34% are 'Not a Host'

43% are 'No, seed is not a pathway'

14% are 'Pathway not proven'

9% are 'Yes'

- Most of the 'Pathway not proven' are not known to be a significant concern to the seed industry. Information based on experimental evidence, limited observations, dated literature, etc.
- Some of the 'Yes' responses are not an issue given industry practices.



ISF Pest List Summary Information

- How much money does your company spend on field inspections and seed health testing to satisfy Phytosanitary Additional Declarations for movement of seed around the world?
- Bottom line: ~90% of Phyto AD requests are irrelevant.



ISF Pest Lists: What are the potential benefits?

- Cost savings directly to companies with less field inspections and lab tests for Phyto ADs.
- Quick reference for companies to see what is available in terms of risk mitigation (seed tests and seed treatments).
- A tool that allows the industry to respond to new reports regarding seed as a pathway.
- Establishes the credibility of the seed industry as a stakeholder.
- Promote science based national regulations.
- Elimination of irrelevant Phyto ADs that act as non-tariff trade barriers.



ISF Pest Lists Gain Recognition

“The International Plant Protection Convention (IPPC) is an international agreement on plant health to which 181 signatories currently adhere. It aims to protect cultivated and wild plants by preventing the introduction and spread of pests.”

“International Standards for Phytosanitary Measures (ISPMs) are the standards adopted by the Commission on Phytosanitary Measures (CPM), which is the governing body of the IPPC.”

ISF Pest Lists are being cited in the ISPM for the International Movement of Seeds.



ISF Pest Lists Workshop

Additional industry support needed to complete the ISF Pest List process for vegetable crops and expansion into other crops.

Thank you for your attention!

