

# **Requirements for the use of modified atmosphere treatments as a phytosanitary measure (2014-006)**

**IPPC first consultation**

**1 July to 30 September 2018**

**IPPC Secretariat  
2018 IPPC Regional Workshop**

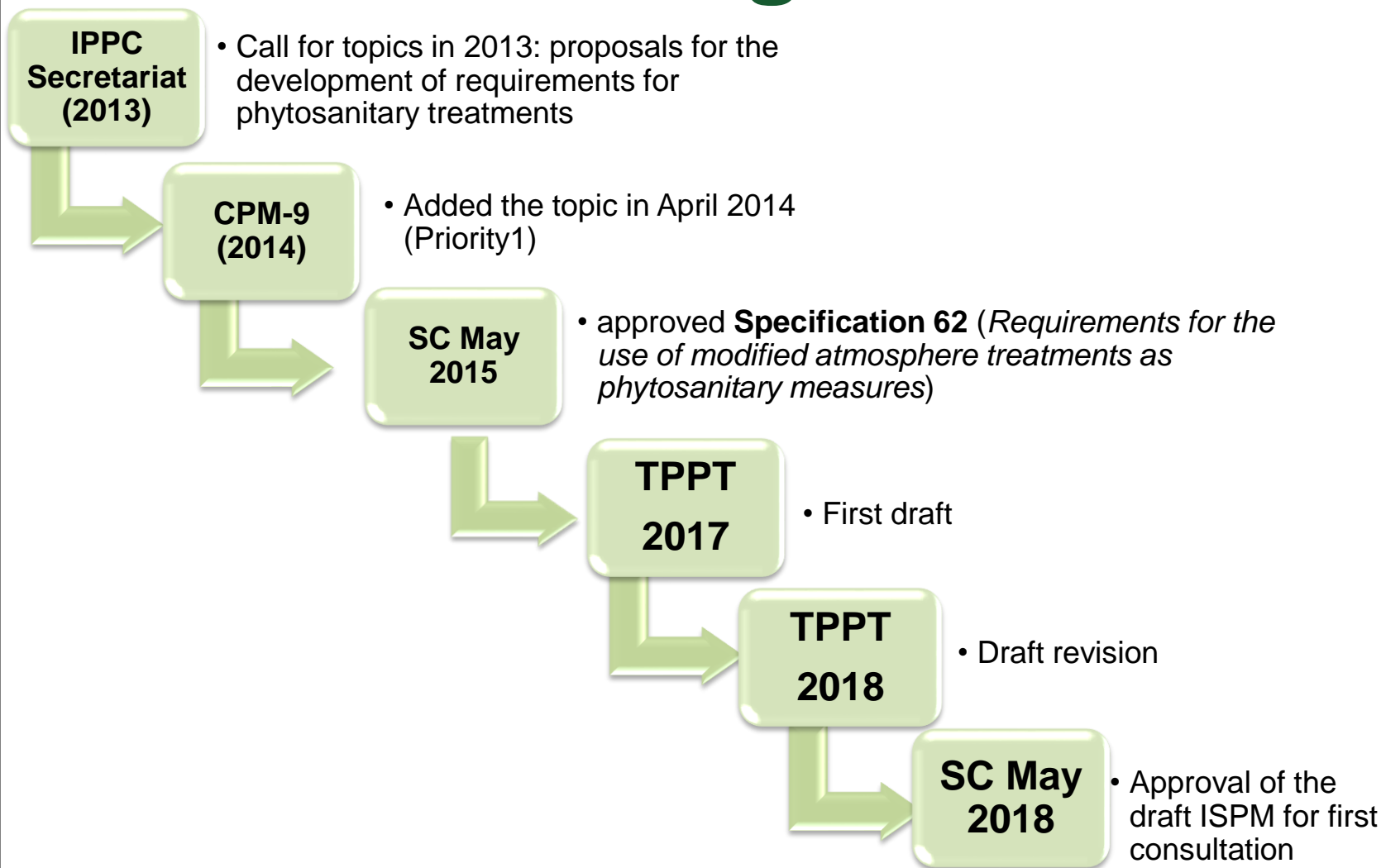


**Food and Agriculture Organization  
of the United Nations**



**International Plant  
Protection Convention**

# Background



# General Considerations

## Reason for the ISPM:

Modified atmosphere treatment is used for other purposes than as phytosanitary measure

Modified atmosphere treatment could be a good alternative phytosanitary treatment

Then technical guidance including specific guidance on the application and verification is essential for the proper application of the treatment.

# Modified Atmosphere Treatments

- Altering ambient atmospheric gas concentrations
  - Without the introduction of a toxic agent
  - Increase in the carbon dioxide content
  - Reduction in the oxygen content
- To create an atmosphere lethal to target pests.

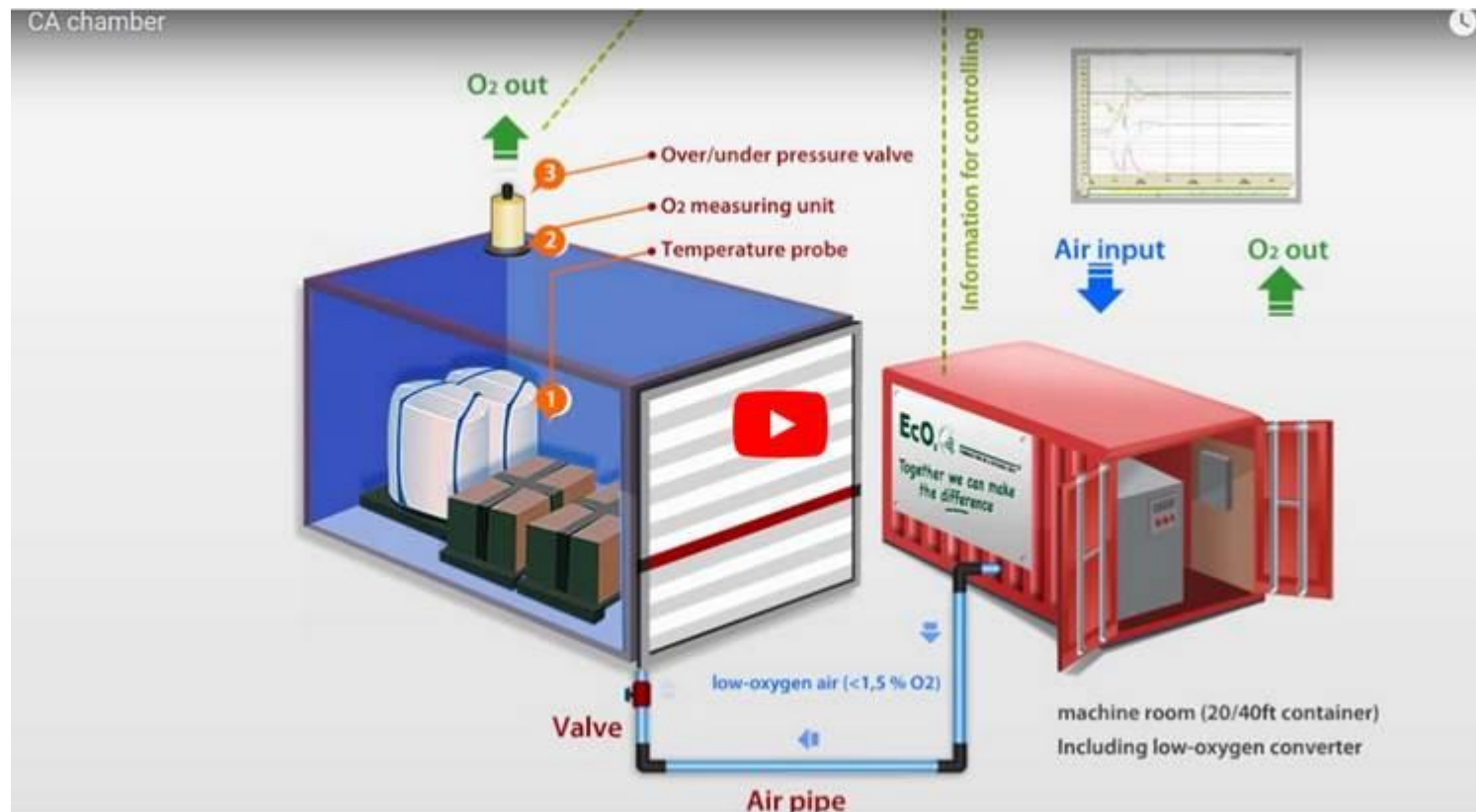
# Methods for modifying atmospheres

Treatment atmospheres modified by:

- **changing the proportion of  $O_2$  and  $CO_2$**  by adding  $CO_2$  or an inert gas such as nitrogen ( $N_2$ )
- **converting  $O_2$  to  $CO_2$**  by combustion of a hydrocarbon
- hermetic or semi-hermetic storage in which the respiration of the commodity and organisms infesting it deplete the level of  $O_2$  and increase the level of  $CO_2$
- **partial vacuum**, which lowers concentrations of all atmospheric gases proportionally



# Treatment unit for Modified atmosphere: (air in the inclosure is replaced by low-oxygen air)



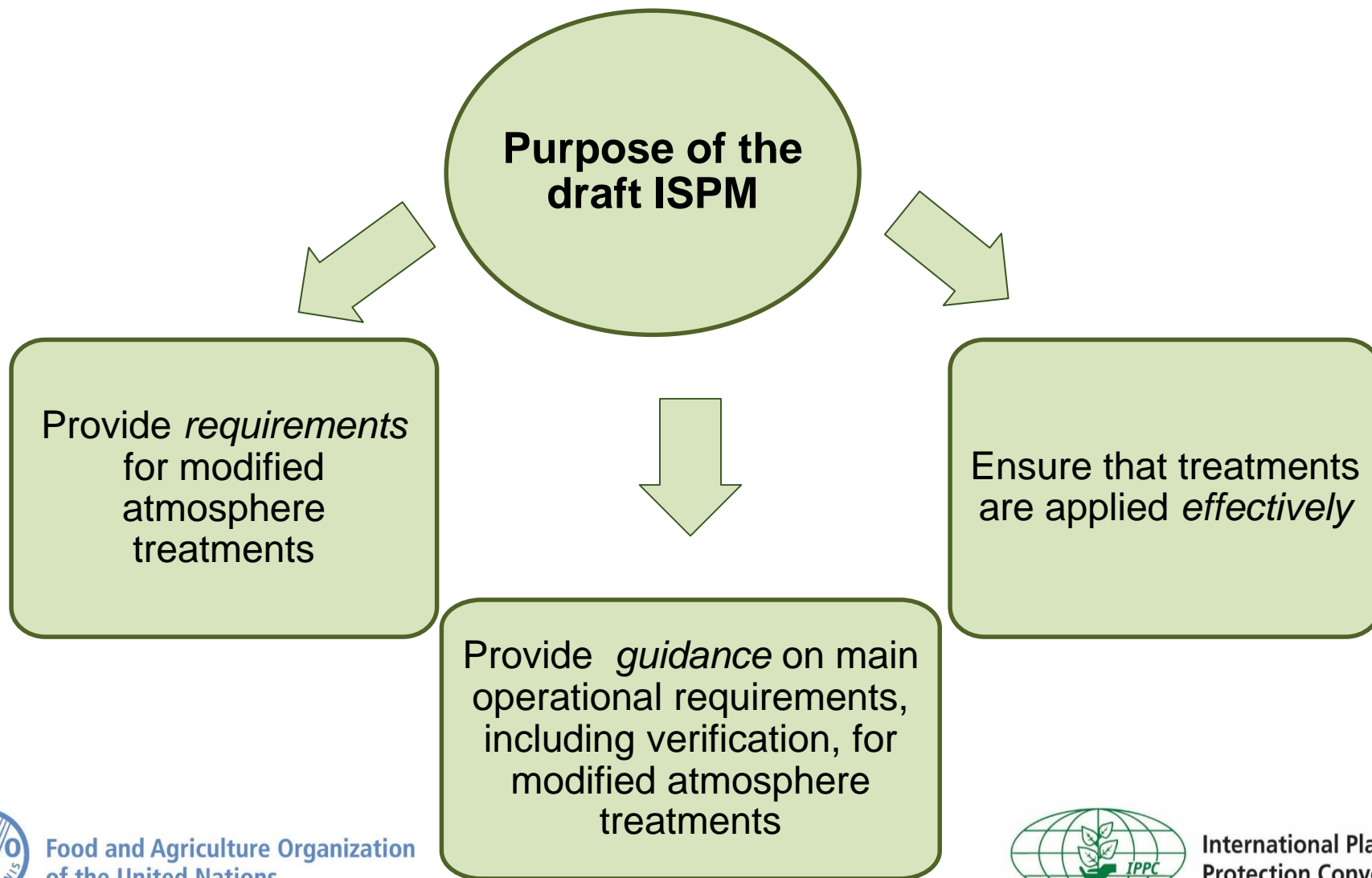
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## Inside of a Modified atmosphere treatment enclosure:



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# General Considerations





# Major drafting issues

1. To explain in an understandable way what a modified atmosphere treatment is and how it may be applied.
2. “Treatment entities” include “treatment providers” (individuals, organizations or companies) and treatment facilities (e.g. enclosures).
3. Appendix on guidelines for efficacy research was deleted and will be included in the procedure manual for Standard setting.

# Major drafting issues

4. Consistency issues with other draft ISPMs on treatment requirements: This is the third (out of 5) treatment requirement standards to go to consultation.
5. Relevant consultation comments from “Temperature Treatments Requirements (ISPM 42)” and “Fumigation Treatment Requirements (2014-04)” have already been incorporated.

## Contacts

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