



Canadian Grain
Commission

Commission canadienne
des grains



Certification and Monitoring of Grains in Relation to Pests Within a Commercial Grain Handling System

Workshop on the International Movement of Grain

Vancouver, Canada, December 2011

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Canadian Grain Commission

- **Government Organization – Regulatory authority**
 - Licensing of Grain Handling
 - Registration of Grain Volumes Facilities
 - Establishment of Grades for Grains and Oilseeds
 - Regulations on presence of insect pests associated with grains

Introduction

- Exporter Goal – To handle and maintain grain quality - mitigating damage or consumption associated with pests
- Importer Goal – To ensure grain meets quality requirements and is 'free' from pests of commodity or regulatory concern
- How are the Goals Achieved?
 - Contract Specification
 - Regulatory Requirements – from both exporter and importer
 - Quality Systems within Exporting and Importing countries

Introduction

- Generally describe the movement of grain from production to export market
- Sampling – techniques used and general issues related to pests (aggregated distributions & representiveness)
- Inspection Techniques and criteria
- Monitoring for Assurance criteria



World Map Grains & Oilseeds

World Map Grains & Oilseeds. This infographic provides a comprehensive overview of the global grains and oilseeds market, including production, trade, and consumption trends. It features a central world map with detailed regional data and various charts illustrating market dynamics.

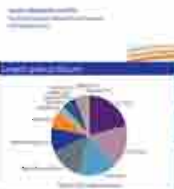
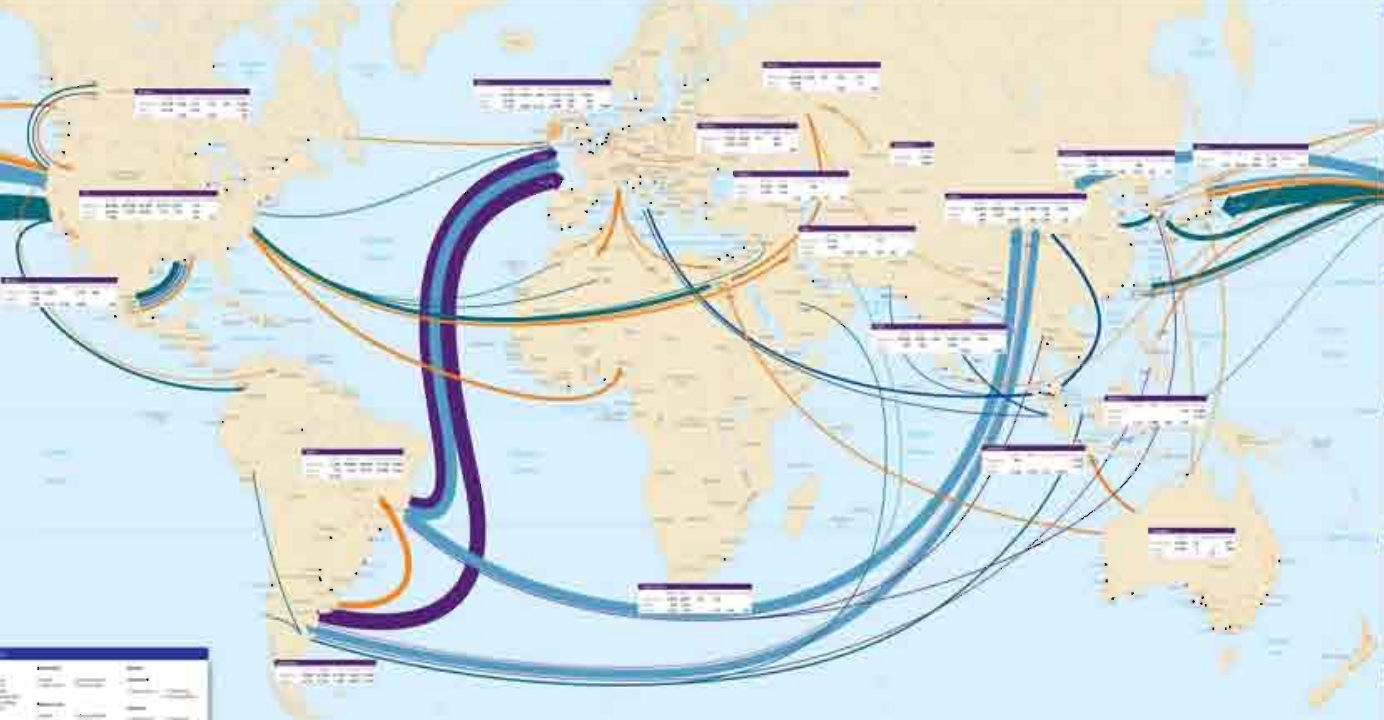
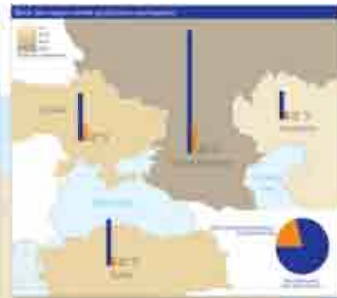
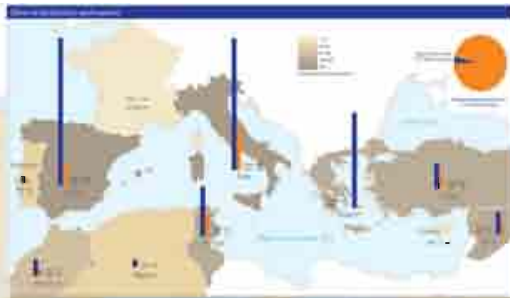
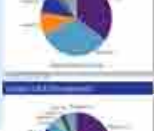
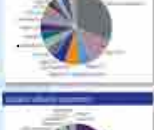


Table with 2 columns: Region, Production (2010-2014), and Consumption (2010-2014). Includes a legend for production and consumption.

Table with 2 columns: Commodity, Production (2010-2014), and Consumption (2010-2014).









PRODUCER MANUAL

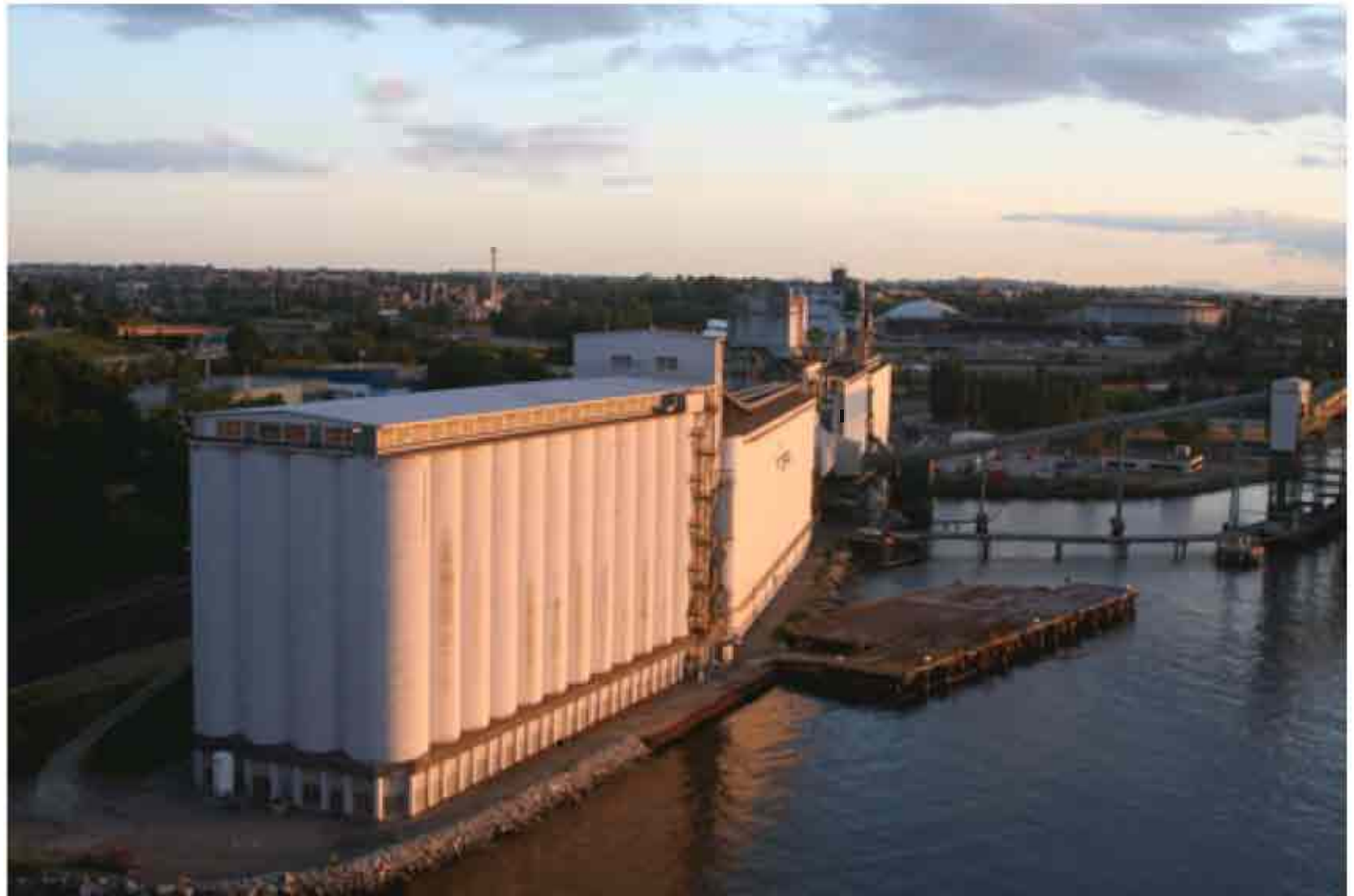
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HACCP Based
On-Farm Food Safety Program





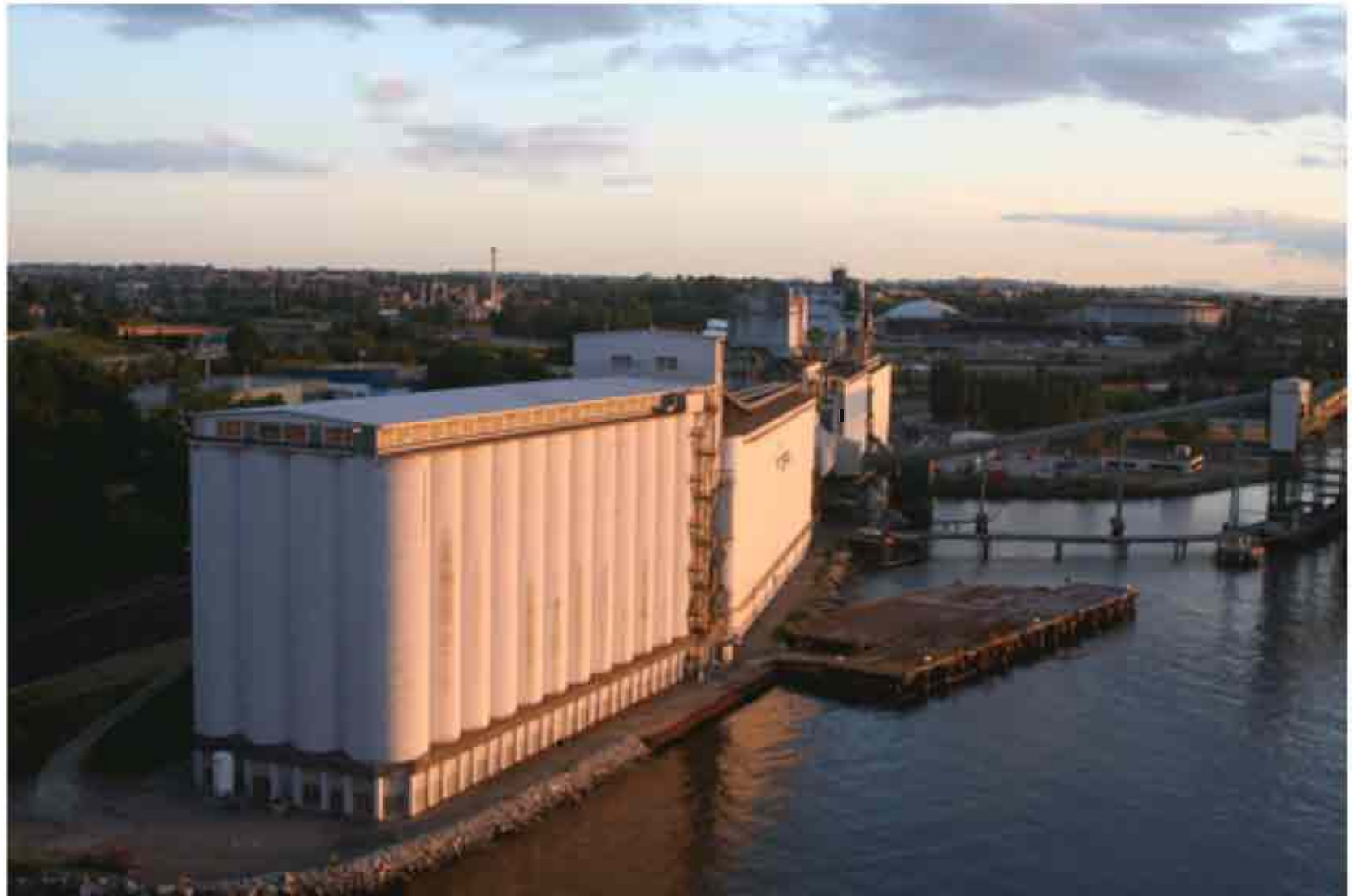


Accredited Food Safety Certification

- QMI, BSI
 - Global Food Safety Initiative
 - FSSC
 - SQF 2000
 - BRC
 - ISO 22000

Canada



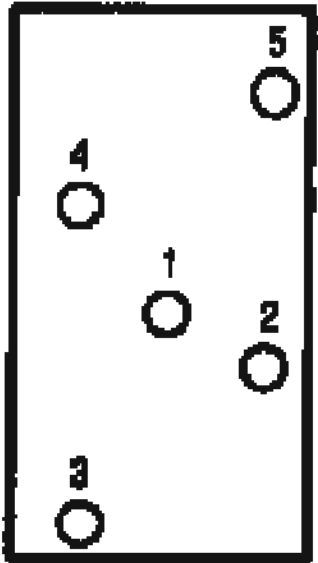


Sampling

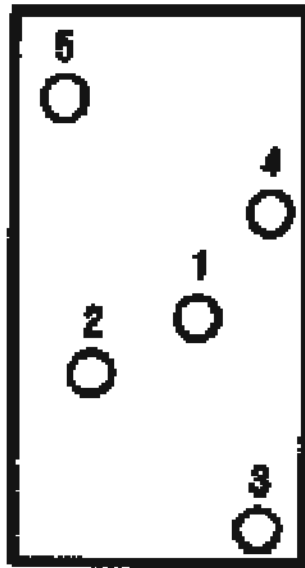
- **Sampling for Representativeness**
 - To obtain the best possible determinations about the quality of grain
 - To obtain a relative estimate of pest presence
- **Sampling to meet ISPM Objectives**
 - Provide assurance of the general phytosanitary condition of a consignment
 - Maximize use of available sampling resources
 - The use of any methodology always involves a degree of error that pests are present



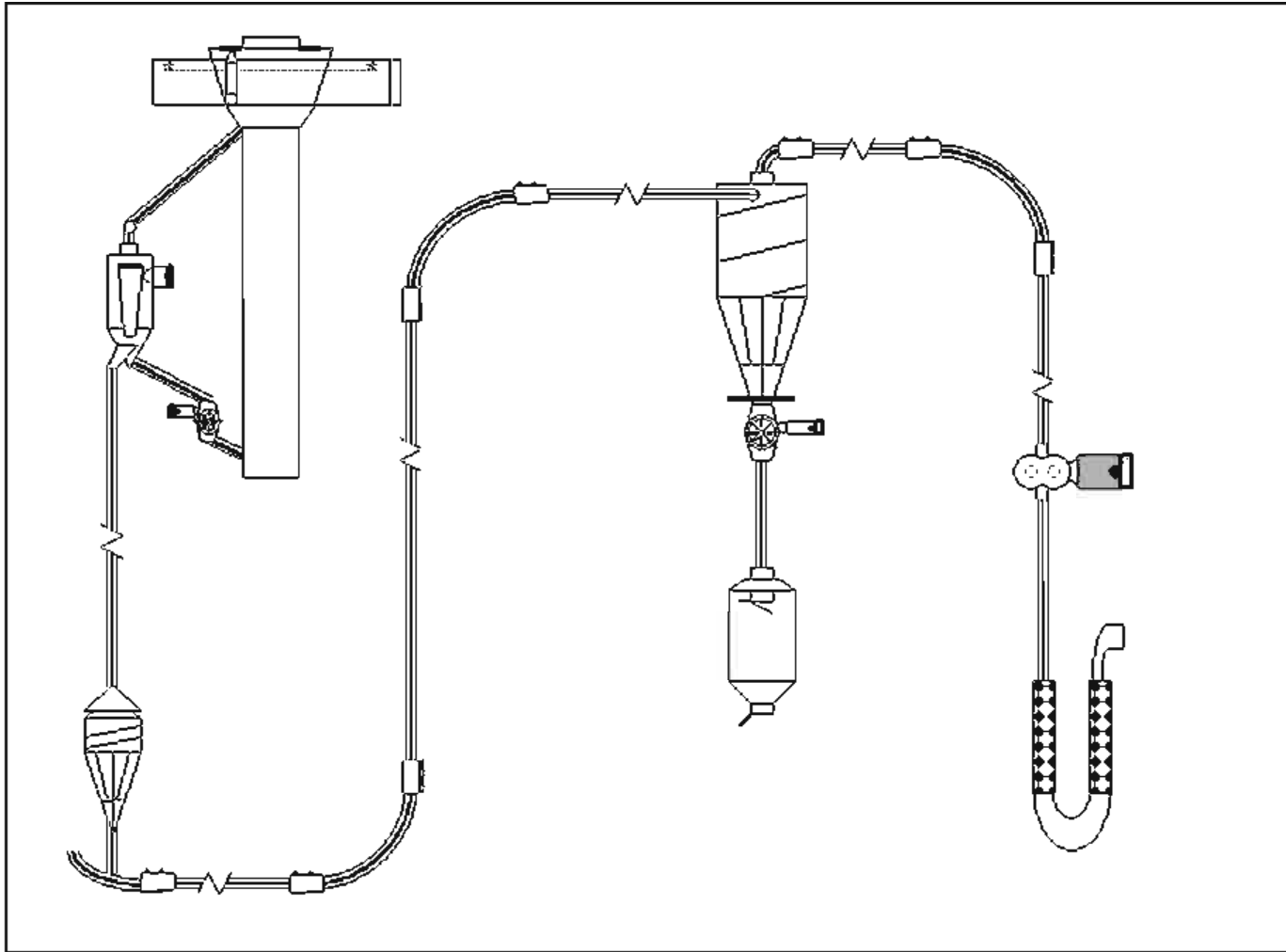
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II











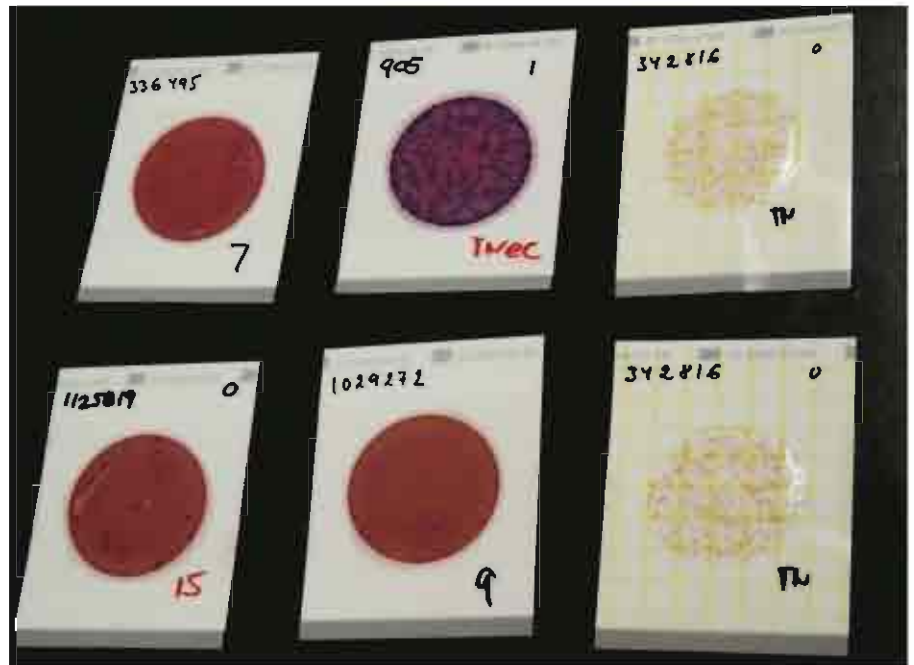
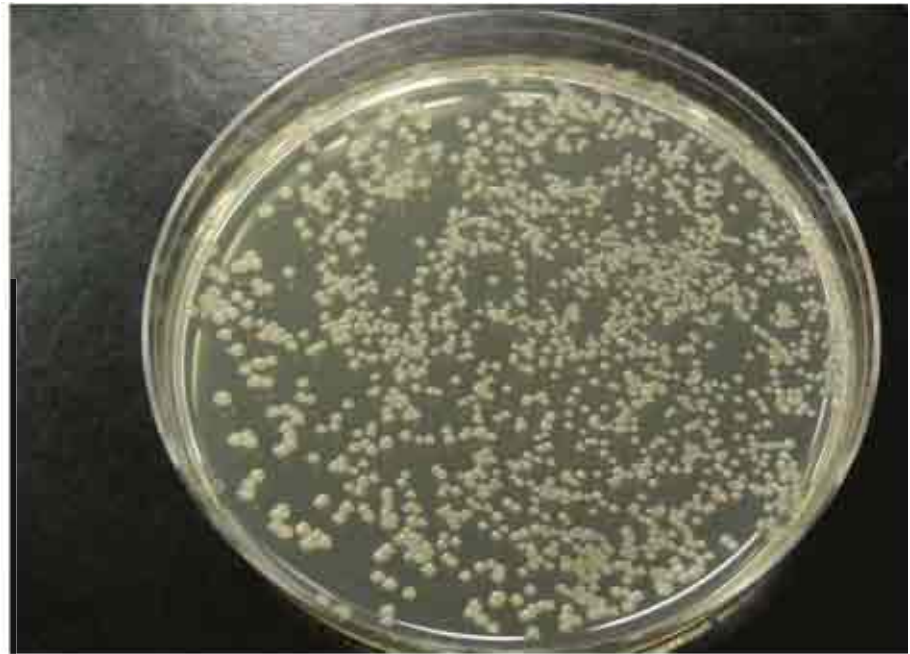
Wheat Canada Western Red Spring (CWRS), continued

Grade name	Wheats of other classes or varieties (*)		Artificial stain, no residue %	Dark, Immature %	Degermed %	Fireburnt %	Fusarium damage %	Grass green %	Grasshopper, army worm %	Heated	
	Contrasting classes %	Total %								Binburnt severely mildewed rotted, mouldy %	Total %
No.1 CWRS	<u>0.75</u>	<u>2.3</u>	Nil	1	4	Nil	<u>0.25</u>	<u>0.75</u>	1	0.005	0.05
No. 2 CWRS	<u>2.3</u>	<u>4.5</u>	0.05	<u>2.5</u>	7	Nil	0.8	2	3	0.020	0.4
No. 3 CWRS	<u>3.8</u>	<u>7.5</u>	0.10	10	13	Nil	1.5	10	8	0.030	1.0
No. 4 CWRS	<u>3.8</u>	<u>7.5</u>	0.10	10	13	Nil	1.5	10	8	0.030	1.0
CW Feed	No limit-but not more than 10% amber durum and /or General Purpose		2	No limit	No limit	2	4	No limit	No limit	<u>2.5</u>	<u>2.5</u>
Grade, if specs for CW Feed not met	Over 10% amber durum and/or General Purpose – Wheat, <i>Sample CW Account Admixture</i>		<i>Wheat, Sample CW Account Stained Kernels</i>			<i>Wheat, Sample CW Account Fireburnt</i>	<i>Wheat, Sample CW Account Fusarium Damage Over 10%– Wheat Commercial Salvage</i>			<i>Wheat, Sample CW Account Heated</i>	



















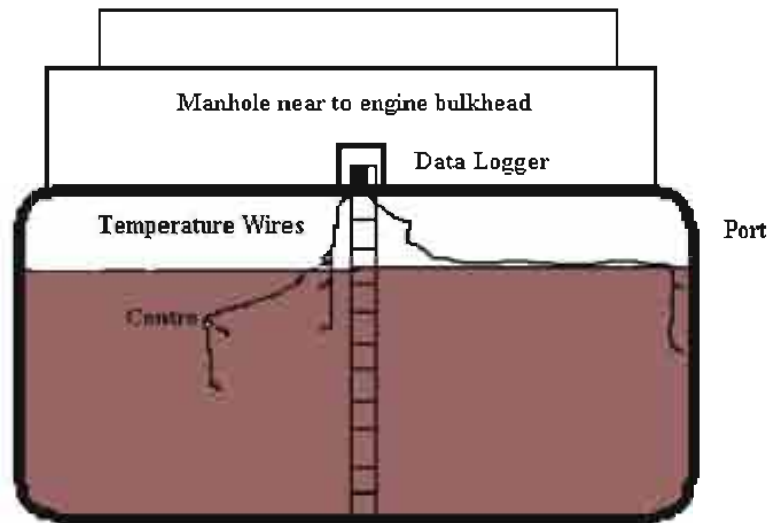
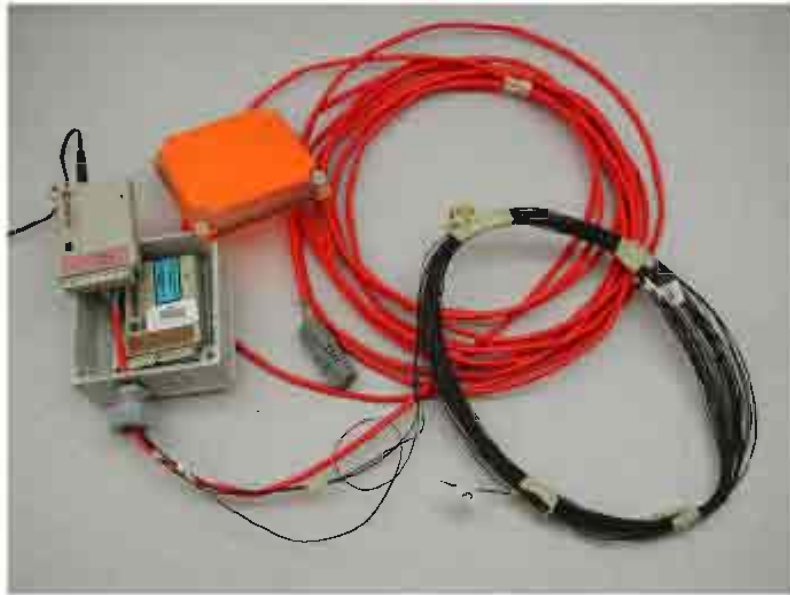


Fig. 1. Vessel 1 - Wheat Cargo Temperatures - Vancouver - Bangkok, December, 2003

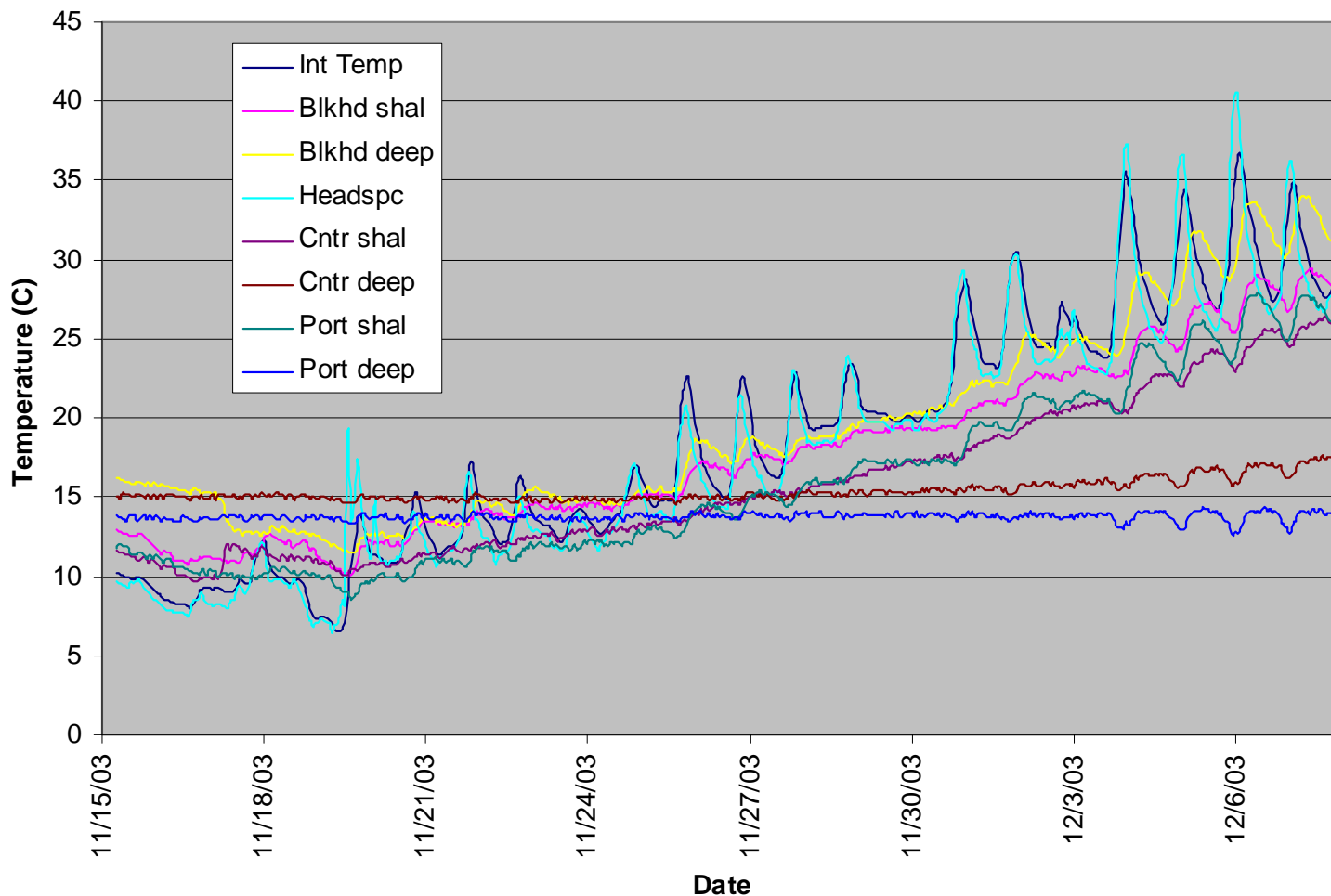
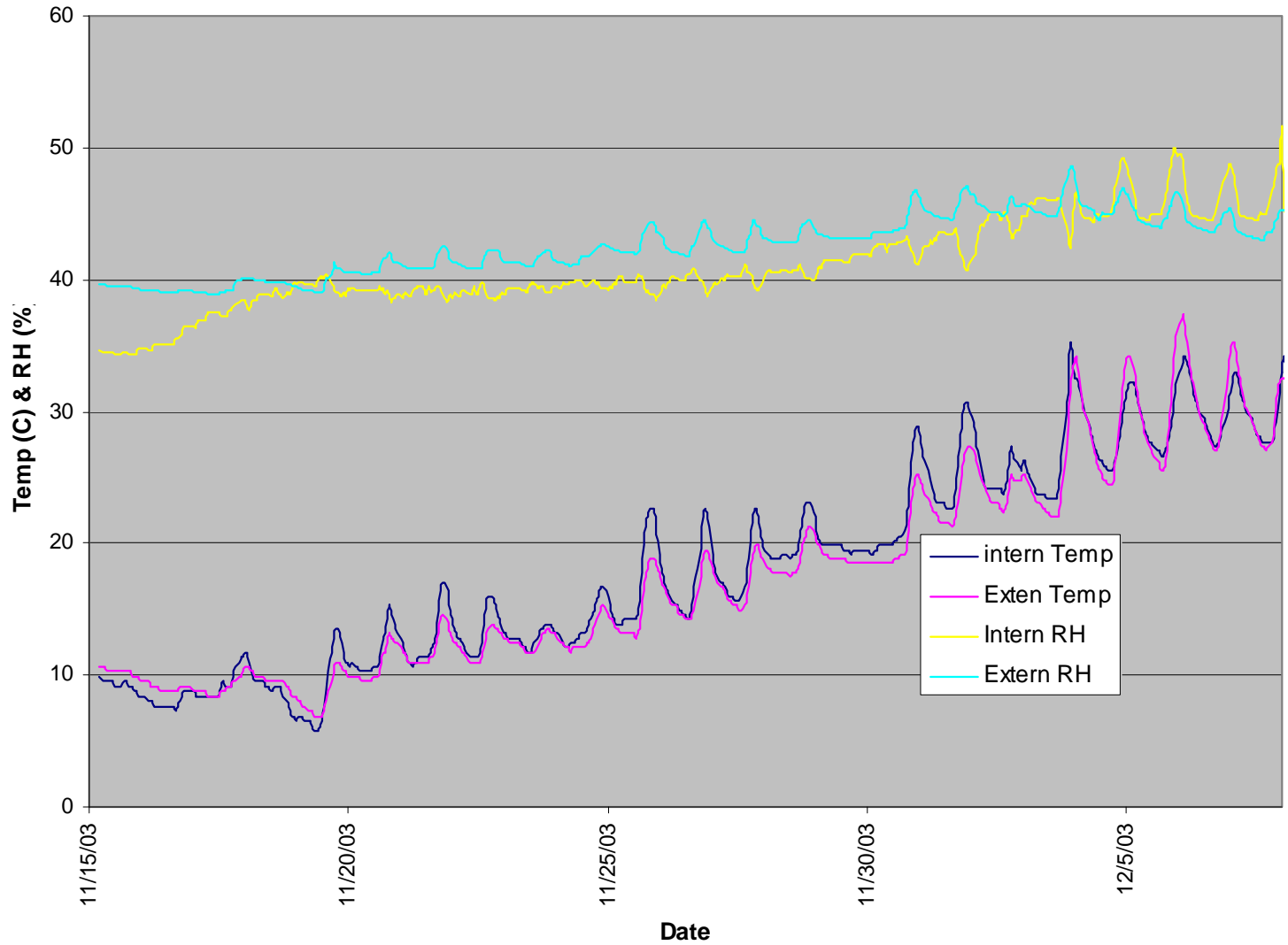


Fig. 2. Vessel 1 - Wheat Cargo Temp and Relative Humidity, Vancouver - Bangkok, December, 2003



Conclusions

- Standards Exist – consideration should be given to what currently exists
- Should assist in minimizing establishment of invasive species while remaining applicable to high through put and efficient systems
- Should be relevant to grain industry and applicable to maintaining confidence in grain quality
- ISPM standards are mostly conceptual – few are commodity specific



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