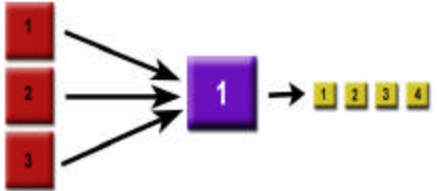
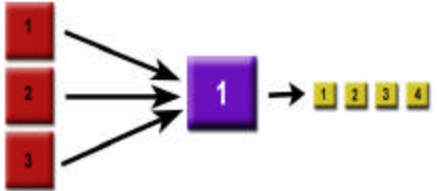
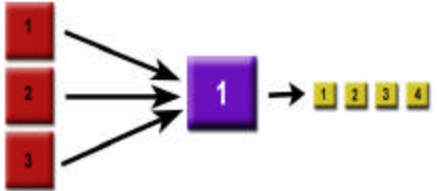


Traceability Readiness Report Card

Industry: <p style="text-align: center;"><i>Shellfish Aquaculture</i></p>	State of Readiness Assessment: <p style="text-align: center;">Total Score = A-</p>		
Industry Overview: <ul style="list-style-type: none"> • The BC shellfish aquaculture industry is made up primarily of independent growers. Vertical integration within the industry is limited. • Production is primarily oysters and clams. Smaller quantities of mussels and scallops are commercially farmed. Species being considered - or under early development – for culture in BC include: geoducks, abalone, sea cucumber, sea urchins and cockles. • Most product is sold on the commodity market. There is a limited amount of product differentiation and value adding. • Extensive pooling of product may occur at the hatchery, nursery and farm as a result of grading/sorting activities. The amount of product pooling associated with grading/sorting makes the mapping of identity relationships extremely difficult. • The farm-to-processor link has a level of traceability associated with compliance with CSSP, QMP and Vp regulations. • Industry association – BC Shellfish Growers Association (BCSGA); Canadian Aquaculture Industry Alliance (CAIA) <table border="1" style="width: 100%;"> <tr> <td data-bbox="165 1092 893 1470"> Chain of Custody Pathways Hatchery → Truck → Nursery → Truck → Farm → Truck → Processor Hatchery → Truck → Nursery → Boat → Farm → Truck → Processor </td> <td data-bbox="893 1092 1446 1470"> Unit Transformations Units may undergo multiple pooling and subdivisions between hatchery and processor  </td> </tr> </table>		Chain of Custody Pathways Hatchery → Truck → Nursery → Truck → Farm → Truck → Processor Hatchery → Truck → Nursery → Boat → Farm → Truck → Processor	Unit Transformations Units may undergo multiple pooling and subdivisions between hatchery and processor 
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Market(s): <ul style="list-style-type: none"> • Market is primarily for fresh exports to the US Pacific Northwest. Smaller amounts of frozen half shell oysters are exported to Asia. • COOL and US Bioterrorism Act are the main traceability regulations of concern. 			

CSSP=Canadian Shellfish Sanitation Program

QMP=Quality Management Program

Vp=*Vibrio parahaemolyticus*

<p>Product and Business Data Availability: Traceability requirements are currently available through the following systems.</p> <table border="1"> <tr> <td> <p>Hatchery Invoices Shipping documents Sales Records</p> </td> <td> <p>Nursery Invoices Shipping documents Sales Records</p> </td> <td> <p>Transporter Bill of Lading</p> </td> <td> <p>Farm Invoices Shipping documents Sales Records Vp Program Bill of Lading CSSP tag</p> </td> </tr> </table>			<p>Hatchery Invoices Shipping documents Sales Records</p>	<p>Nursery Invoices Shipping documents Sales Records</p>	<p>Transporter Bill of Lading</p>	<p>Farm Invoices Shipping documents Sales Records Vp Program Bill of Lading CSSP tag</p>	<p>Score = 1</p>
<p>Hatchery Invoices Shipping documents Sales Records</p>	<p>Nursery Invoices Shipping documents Sales Records</p>	<p>Transporter Bill of Lading</p>	<p>Farm Invoices Shipping documents Sales Records Vp Program Bill of Lading CSSP tag</p>				
<p>What product or business data is missing? place of dispatch, CSSP area designation, disease records/history.</p> <p>Is the data electronically accessible to the supply chain? No. Paper records are maintained by supply chain partners. The accessibility of information upstream from the farm-processor link may be much more difficult to efficiently access.</p> <p>Is the data verifiable? Growing water classification and PSP status are verifiable through CFIA. There is no 3rd party verification of other data elements.</p>							
<p>Product Identifiers: Unique trade and/or logistic unit identifiers are not used.</p>			<p>Score = 1.5</p>				
<p>Data Transfer and Information Mapping: Current data systems are paper based with data transferred to the buyer through harvest tags as required by CSSP, QMP and Vp Programs. The level of data transfer that exists upstream from the farm is limited to paper records (invoices, bills of lading etc.) passed from one business to the next.</p>			<p>Score = 1.5</p>				
<p>Industry Leadership: Primarily one umbrella organization represents industry but other aquaculture groups exist.</p>			<p>Score = 1.5</p>				
<p>Processor Level Constraints</p>			<p>Score = 1</p>				
<p>Factors impeding ability to meet traceability:</p> <ul style="list-style-type: none"> • Electronic information systems in which traceability information could be stored are not common among shellfish growers. • Hatchery to farm record keeping practices are poor. 		<p>Factors aiding ability to meet traceability:</p> <ul style="list-style-type: none"> • CAIA recognizes the necessity to achieve a ‘Tracefish’ level of traceability to ensure market access. Traceability is one of the pillars of its Brand Canada marketing strategy. • Most of the required traceability information is collected through CSSP, Vp and QMP programs. 					

Opportunities:

Goal 1 - Traceability to a container (sack, bag) level.

- Identify batches and label products with trade and logistic unit identifiers
- The upstream supply chain may not currently be in compliance with the record keeping and labeling requirements of the US COOL. Given the importance of the US market, an initiative should be undertaken to ensure compliance through improved traceability and labeling.
- To comply with the requirements of EC regulation 2003/804, the BC shellfish industry will need to implement a surveillance and recording system for documenting/verifying the incidence of mortality and disease on farms.
- Given the significant level of product sorting and pooling, protocols for mapping the relationships between input units and pooled units should be developed.
- Traceability would be beneficial as a production/marketing tool.