

Advancing the Specialty Chemical/Green Chemical Cluster in Alberta

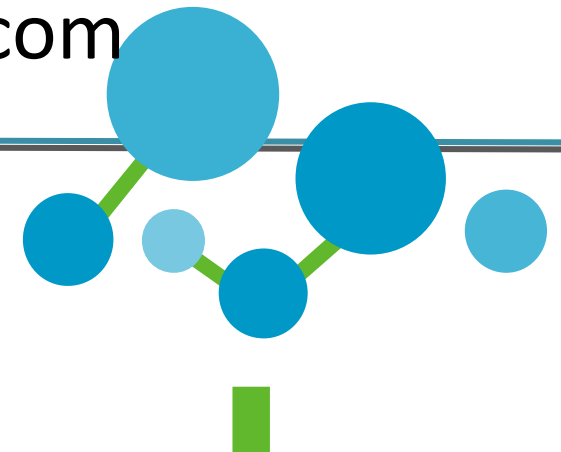
World Congress on Industrial Biotechnology
June 19, 2013
Montreal, Quebec, Canada



BioEconomy Alberta Team

- informal network of key organizations, supporting, coordinating and partnering in bioinnovation
- strong technical knowledge in biomaterials, biochemicals and bioenergy
- excellent business knowledge/relationships in the developing biosector in Alberta
- Aim of stimulating partnerships and collaboration with researchers, businesses and investors

www.bioeconomyalberta.com



BioEconomy Alberta Network includes:

Alberta Innovates Bio Solutions

Alberta Enterprise and Advanced Education

Alberta Energy

Alberta Agriculture and Rural Development

Biorefining Conversions Network

Alberta Innovates and Technology Futures

Olds College School of Innovation

Alberta Biomaterials Development Centre

Agrifood Discovery Place

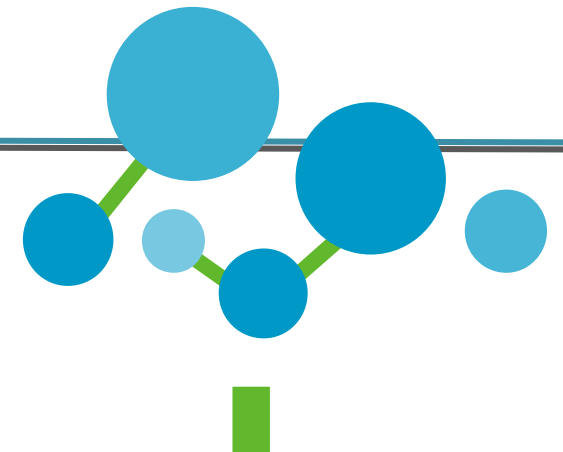
Food Processing Development Centre

Alberta Treasury Board and Finance

BioAlberta

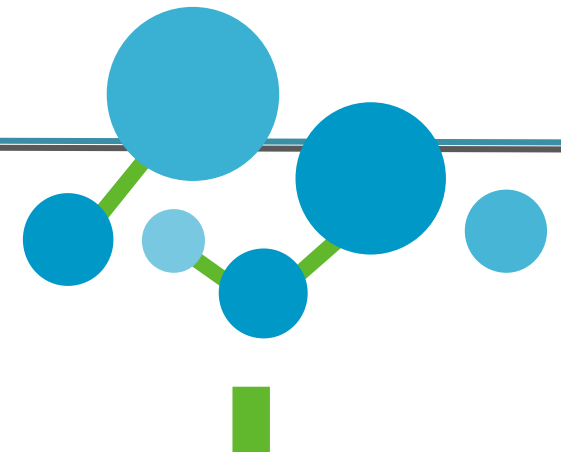
Alberta Environment and Sustainable Resource Development

Alberta International and Intergovernmental Relations



Pleased to have Alberta companies at our booth

- Ceapro Inc
 - TerraVerdae BioWorks
 - Symbiotic EnviroTek Inc.
-
- Also Alberta's Industrial Heartland Association



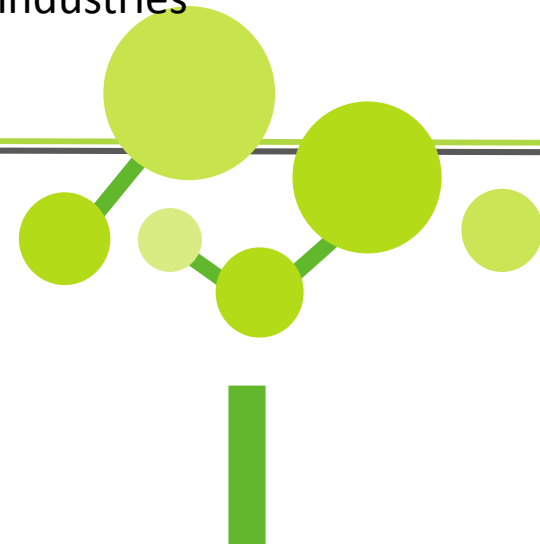
Specialty Chemical Ingredient Initiative (SCI)



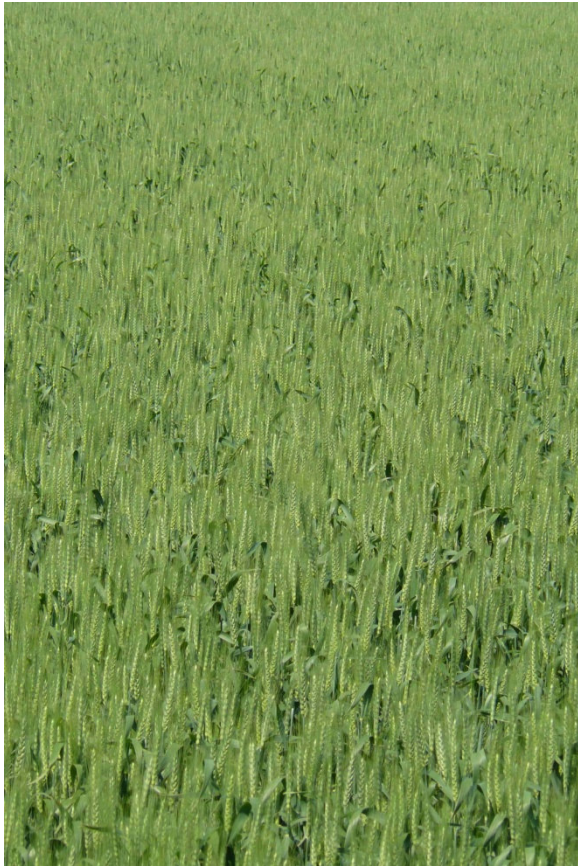
Alberta Agriculture & Rural Development, *Bio-Industrial Opportunities Branch*

Specialty Chemical Ingredients Initiative (SCI) for cosmetic & personal care industry

- High-value innovative products from renewable biomass
- Growth of high value-added bio-based chemical industries



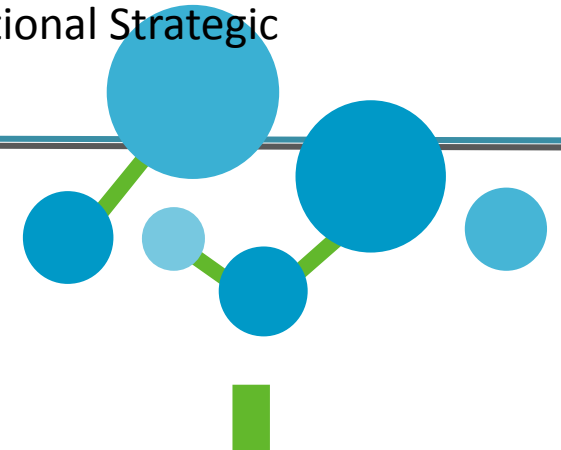
SCI Initiative



Our goal ...

Helping to build a globally competitive natural plant-based specialty chemical ingredients industry in Alberta

- Establish Alberta as preferred supplier of ingredients & materials & platform technologies to global cosmetics, personal care and household cleaning product industries
- Market-focused business development supporting increased market access through our industry partnerships and collaboration
- Enhance collaboration between industry and researchers
- Alberta, national and international Strategic Advisors Group



We help connect the pieces

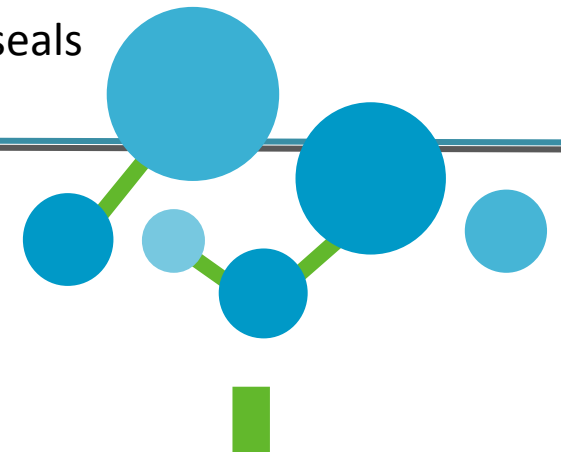


- Partnering on mutually beneficial projects
- Connecting industry to opportunities in Alberta through Business/R&D Forums , in-coming and out-going investment missions
- Showcasing research capabilities and platform technologies in Alberta
- Win-Win is to develop plant based ingredients/molecules in Alberta, while enabling companies to generate profitable sales based on renewable, sustainably grown resources



Natural & Organic Personal Care

- Natural & organic is the fastest growing sector of the global personal care industry.
- Natural plant-based ingredients are highly sought after (premium price is possible, sustainability, environmental factors, green chemistry/safety, ethical reasons, company philosophy)
- Botanical extracts are widely used, mainly as 'active' ingredients. Trend to new, novel ingredients, actives, functionality
- Sustainable packaging and use of recycled materials in packaging
- Meet consumer demands—Consumer is KING
- Lots of confusion about green/natural/organic certification, seals



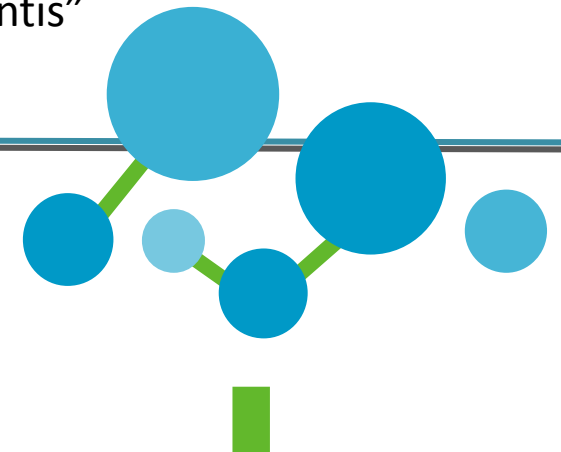
Market Size and Trends

- Natural & organic is the fastest growing sector of the global personal care industry. Growing consumer demand for 'chemically-clean' cosmetics & toiletries has increased revenues by over US \$1.6 billion between 2007 and 2010.
- The global market for natural personal care products was worth US \$9.1 billion in 2011, and according to Organic Monitor projected to reach \$14 billion by 2015.
- Natural and botanical ingredients continue as a trend – in 2011 more than 14,000 new products containing botanical ingredients were launched compared to just 1300 in 2005. *(C&T July 2012)*
- The Canadian market for natural personal care products was worth US \$369 million in 2009. Revenues increased by 5.2 percent to \$389 million in 2010. Organic Monitor projects market revenues to surpass \$600 million in 2016, reporting a 7.2 percent compound annual growth rate.



What the Market Wants

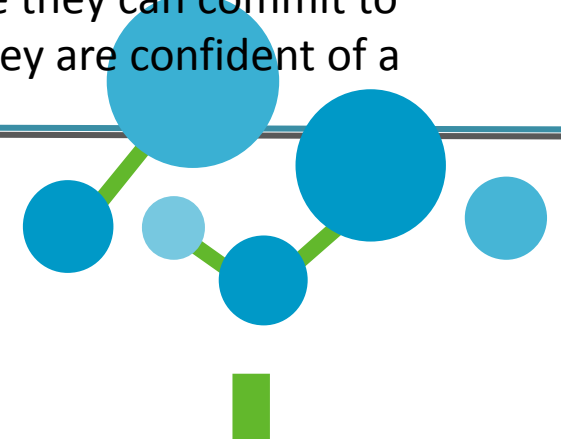
- Consistent supply (quantity, quality and timeliness) and shorter supply chains
- Sustainable and ethical sourcing
- Traceability, direct sourcing and story telling
- **Good Agriculture and Collection Practices (GACPs)**, SOPs and other standards
- Botanicals – lot-to-lot variation is a major issue, may be result of:
 - Lack of correct botanical identification and authentication
 - Lack of a sustainable, ecologically responsible and economically viable supply chain
 - Lack of knowledge regarding harvesting and growing conditions
- Desired Characteristics- and multi-functional activity “The Antis”





What the Ingredient Buyer Wants

- A relationship-based industry, – a personal introduction and handshake goes a long ways
- Also a ‘touch and feel’ industry – buyers want to touch and feel a sample as the first screen
- Then if they like it – will require the science, safety, efficacy and other details (how works in formulation)- innovative opportunities to develop/add to existing lines
- Chicken and egg – typically buyers want to know you are past the pilot/concept stage and are able to provide commercial volumes and constant supply before they will commit
- But new businesses want to know if anyone will buy it before they can commit to production – but buyers won’t commit to purchase unless they are confident of a ready supply and a price they can afford to pay



Regulations for Cosmetics

Health Canada

Definition of Cosmetic:

Includes any substance or mixture of substances manufactured, sold or represented for use in cleansing, improving or altering the complexion, skin, hair or teeth, and includes deodorants and perfumes.

Cosmetic products are subject to the provisions of the [Food and Drugs Act](#) and its [Cosmetic Regulations](#) regarding composition, safety, labelling and advertising. Additionally they are subject to the provisions of the [Consumer Packaging and Labelling Act](#) and [Regulations](#).



Contact Health Canada

Information for Industry and Professionals: Cosmetics and Personal Care Products

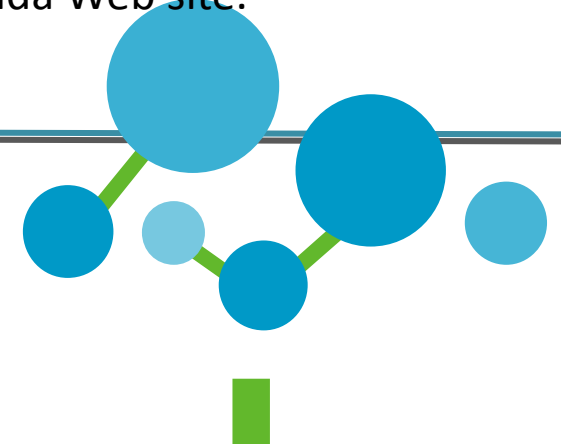
- Health Canada works closely with industry and professionals to regulate and promote the safe use of cosmetics and personal care products that are made for distribution and for retail in Canada.

Cosmetic Ingredient Hotlist

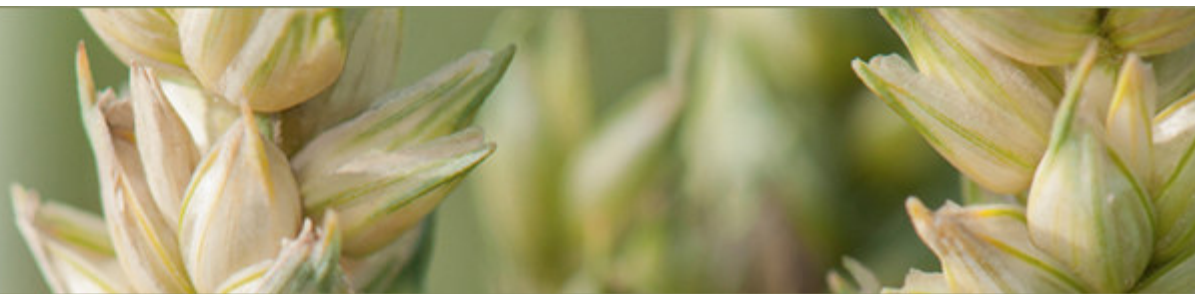
- an official list of prohibited and restricted cosmetic ingredients by HC
- EU list of prohibited substances 1328

Subscribe to Cosmetics @ Health Canada

- Subscribers receive updates when **new information, consumer advisories and warnings, product recalls, and consultation documents** regarding cosmetics and personal care products are posted on the Health Canada Web site.







Kathy Lowther- Lead
Specialty Chemical Ingredient Initiative
Alberta Agriculture and Rural Development
Canada

www.agriculture.alberta.ca/biobasedchemicals

Kathy.lowther@gov.ab.ca

