



Clubroot and the Importance of Canola in Canada



Outline

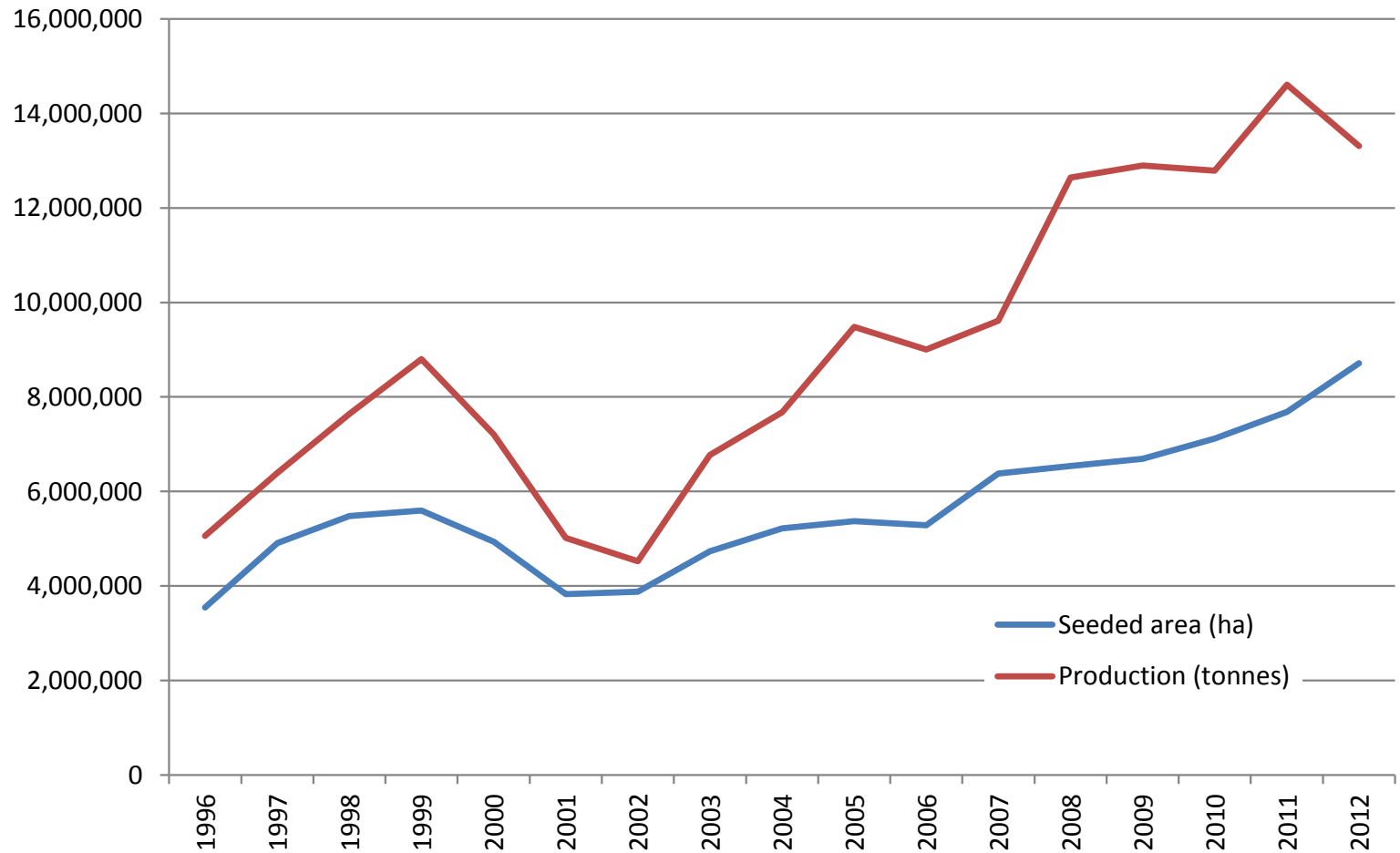
1. Introduction
2. Canadian Canola Production
3. The Economics of Canola
4. Clubroot and Canola Industry
5. Conclusion

Introduction



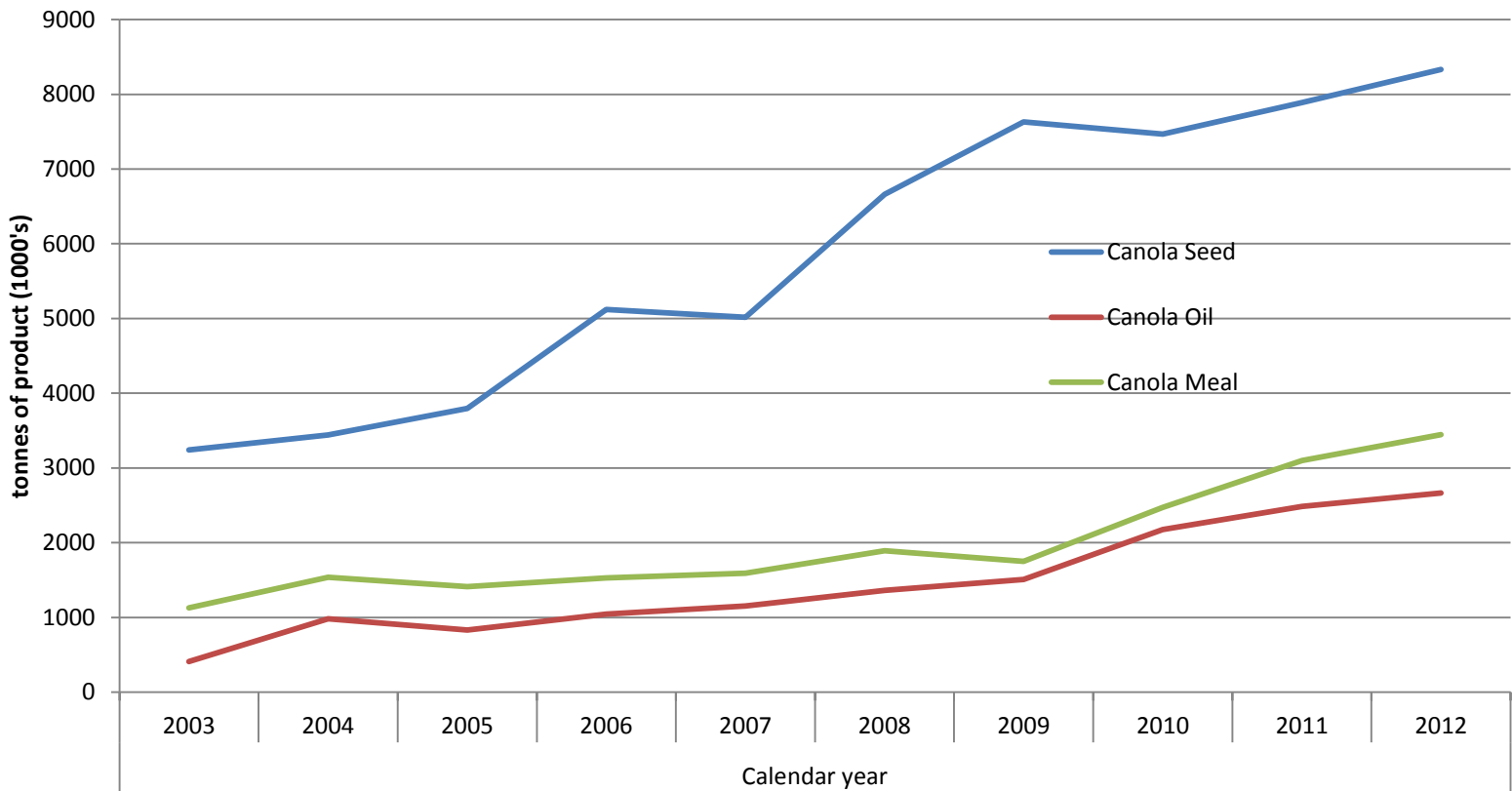
Canadian Canola Production

Canola production and acreage



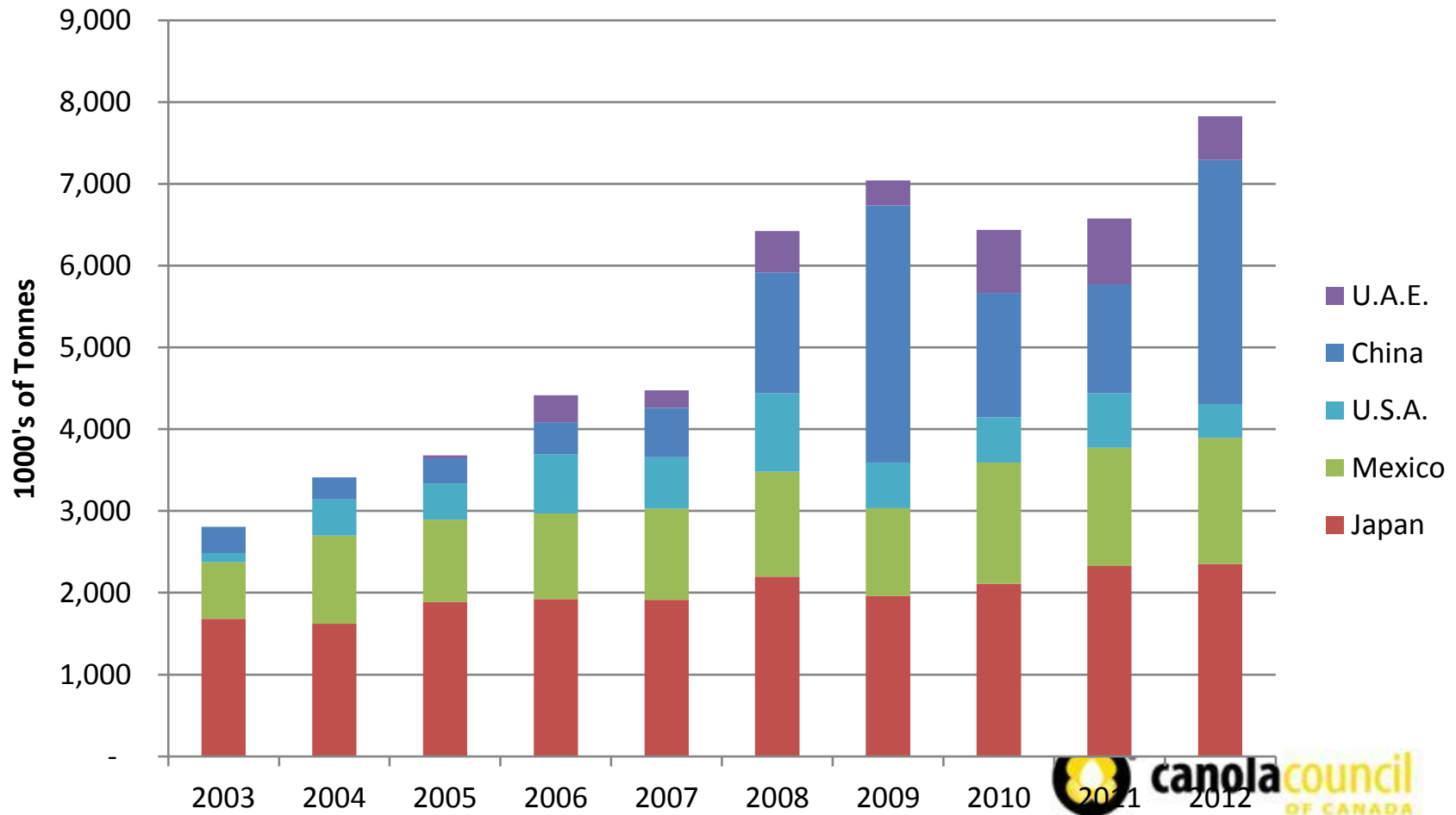
Economics of Canola

Exports of canola products

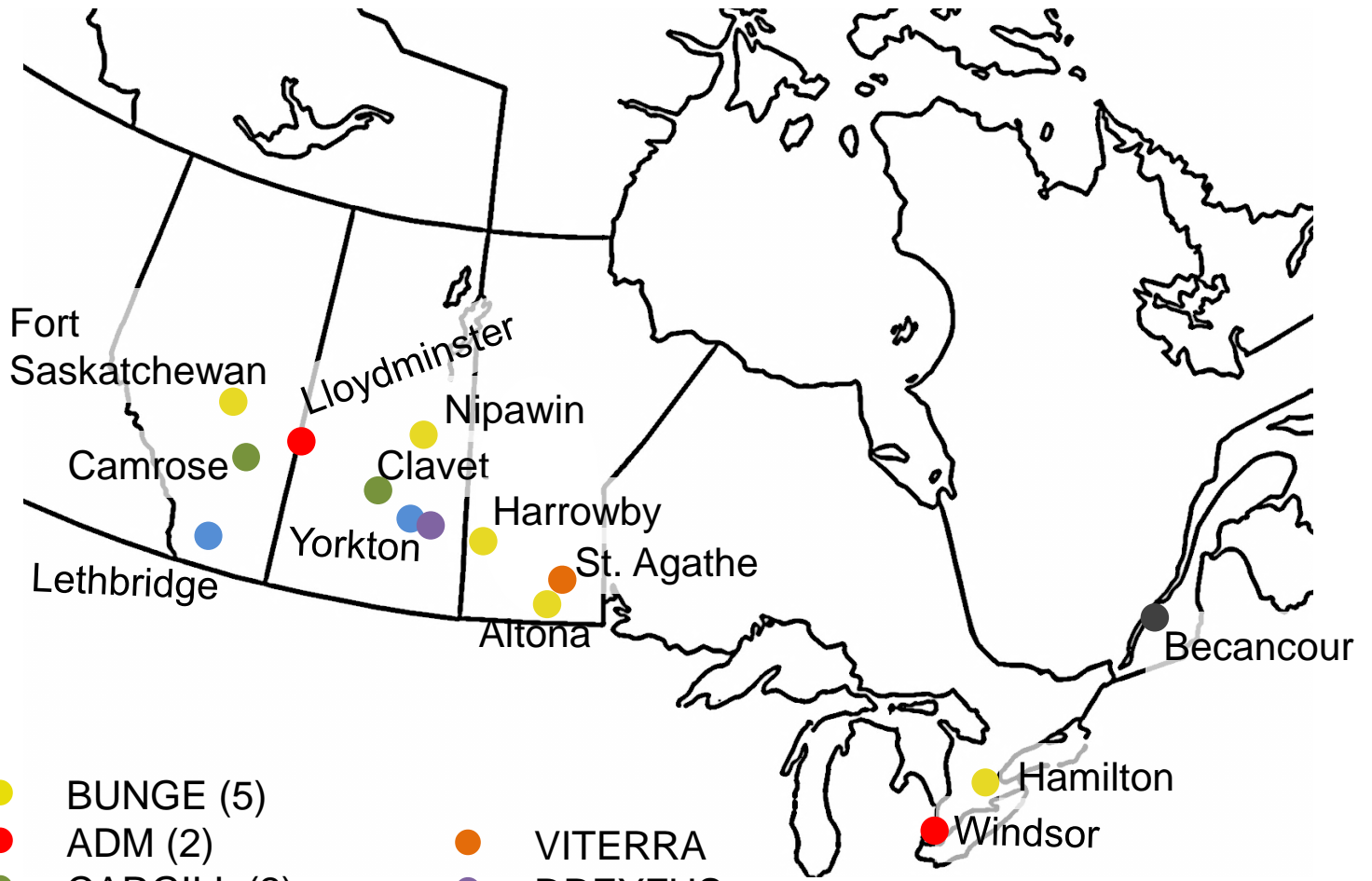


Economics of Canola

Exports of canola seed



Economics of Canola

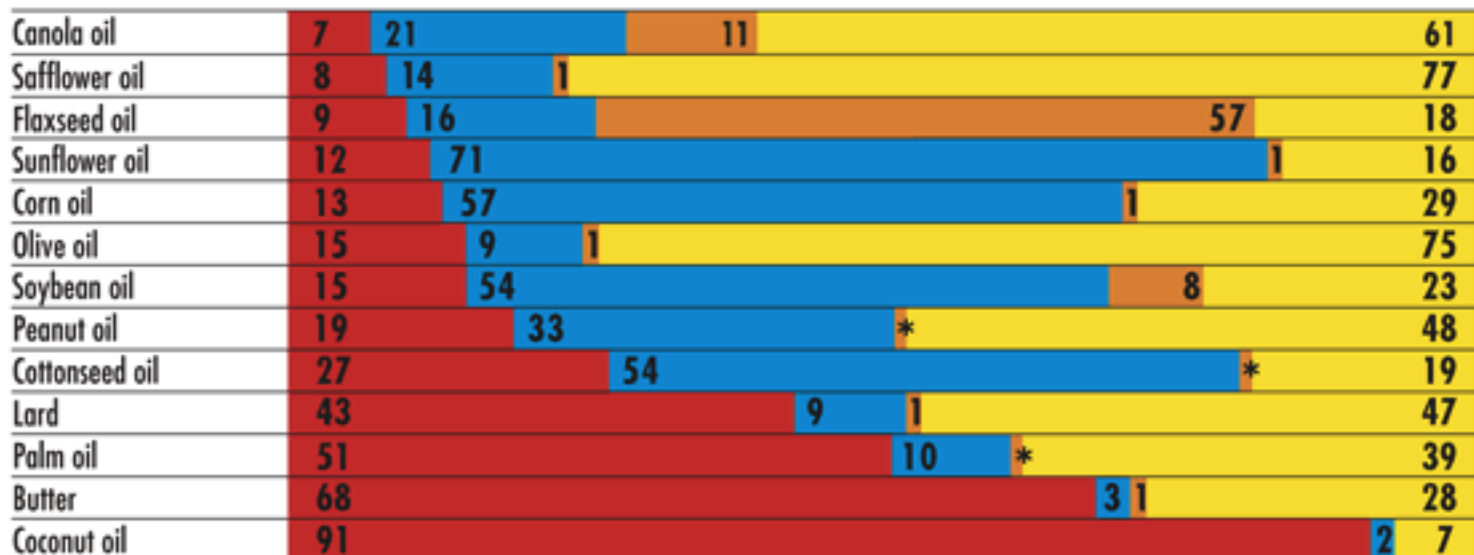


- BUNGE (5)
- ADM (2)
- CARGILL (2)
- RICHARDSON (2)
- VITERRA
- DREYFUS
- TRT-ETGO

Value of Canola Oil – Food & Health

Comparison of Dietary Fats

DIETARY FAT



SATURATED FAT



POLYUNSATURATED FAT



linoleic acid
(an omega-6 fatty acid)



alpha-linolenic acid
(an omega-3 fatty acid)

MONOUNSATURATED FAT



oleic acid
(an omega-9 fatty acid)

*Trace

Fatty acid content normalized to 100%

SOURCE: POS PILOT PLANT CORPORATION

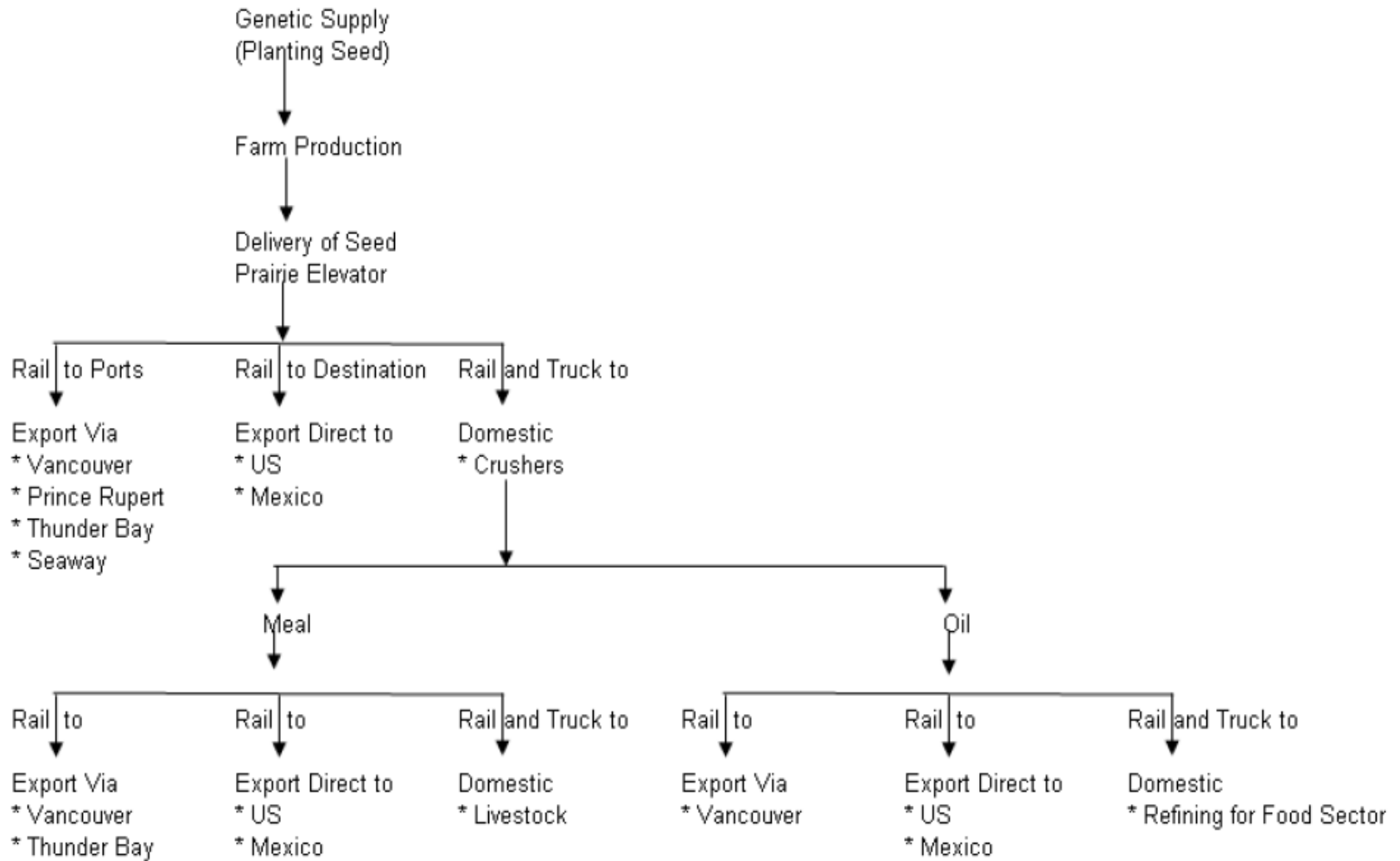
For the treatment of existing cardiovascular disease, canola oil has been recommended for achieving daily omega-3 fat requirements of 1 g/day. In 2006, the U.S. FDA authorized the following qualified health claim for canola oil: *“Limited and not conclusive scientific evidence suggests that eating about 1 tablespoons (19 grams) of canola oil daily may reduce the risk of coronary heart disease due to the unsaturated fat content in canola oil. To achieve this possible benefit, canola oil is to replace a similar amount of saturated fat and not increase the total number of calories you eat in a day”*



canolacouncil
OF CANADA

Canola Value Chain - Canada

Economics of Canola



Economics of Canola

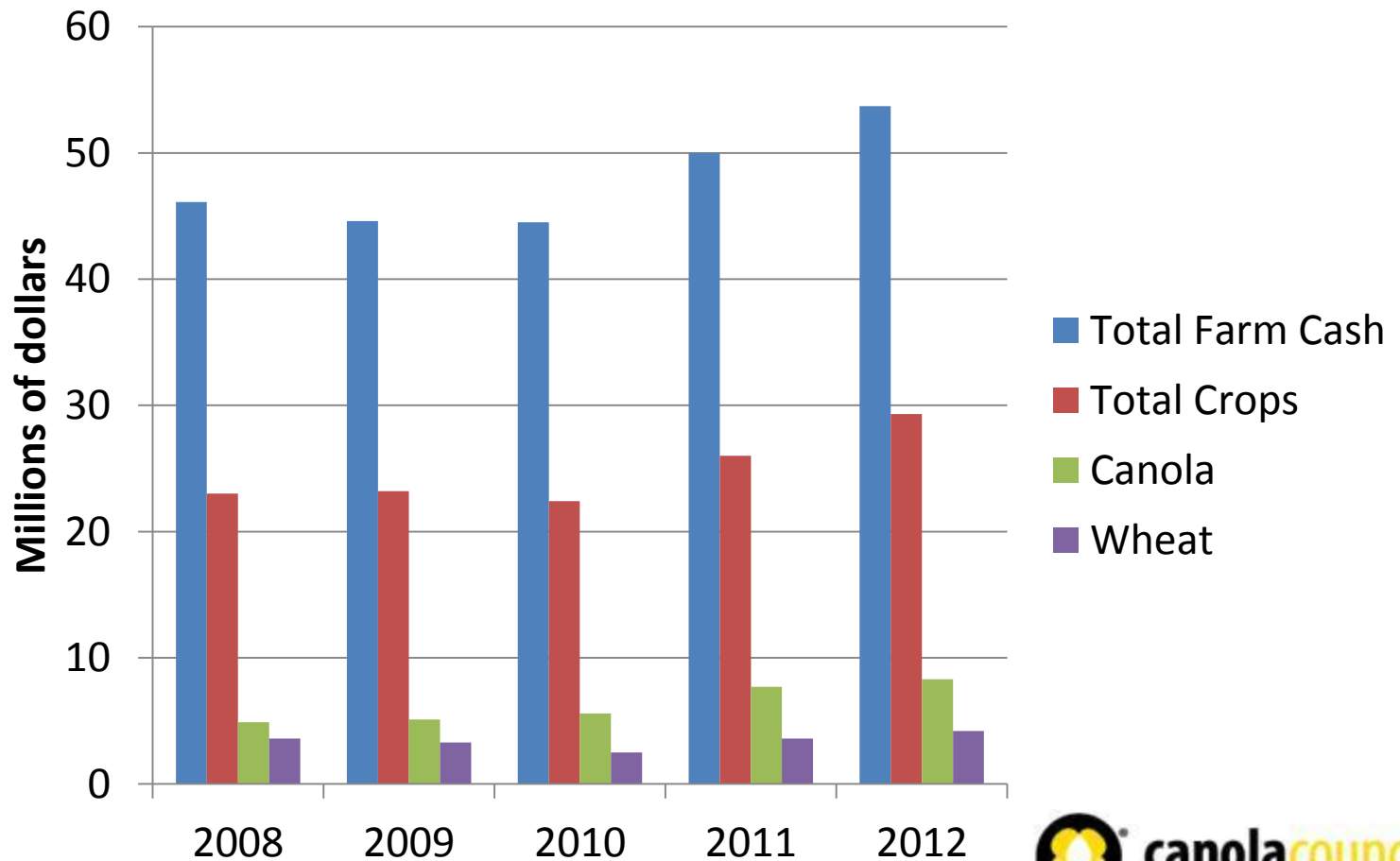
TOTAL* ANNUAL ECONOMIC IMPACT OF CANOLA INDUSTRY SECTORS IN CANADA
 (average 2007-2008 in Canadian dollars)



*Includes indirect and induced economic benefits. **Includes 1,000 jobs in the generic supply sector.

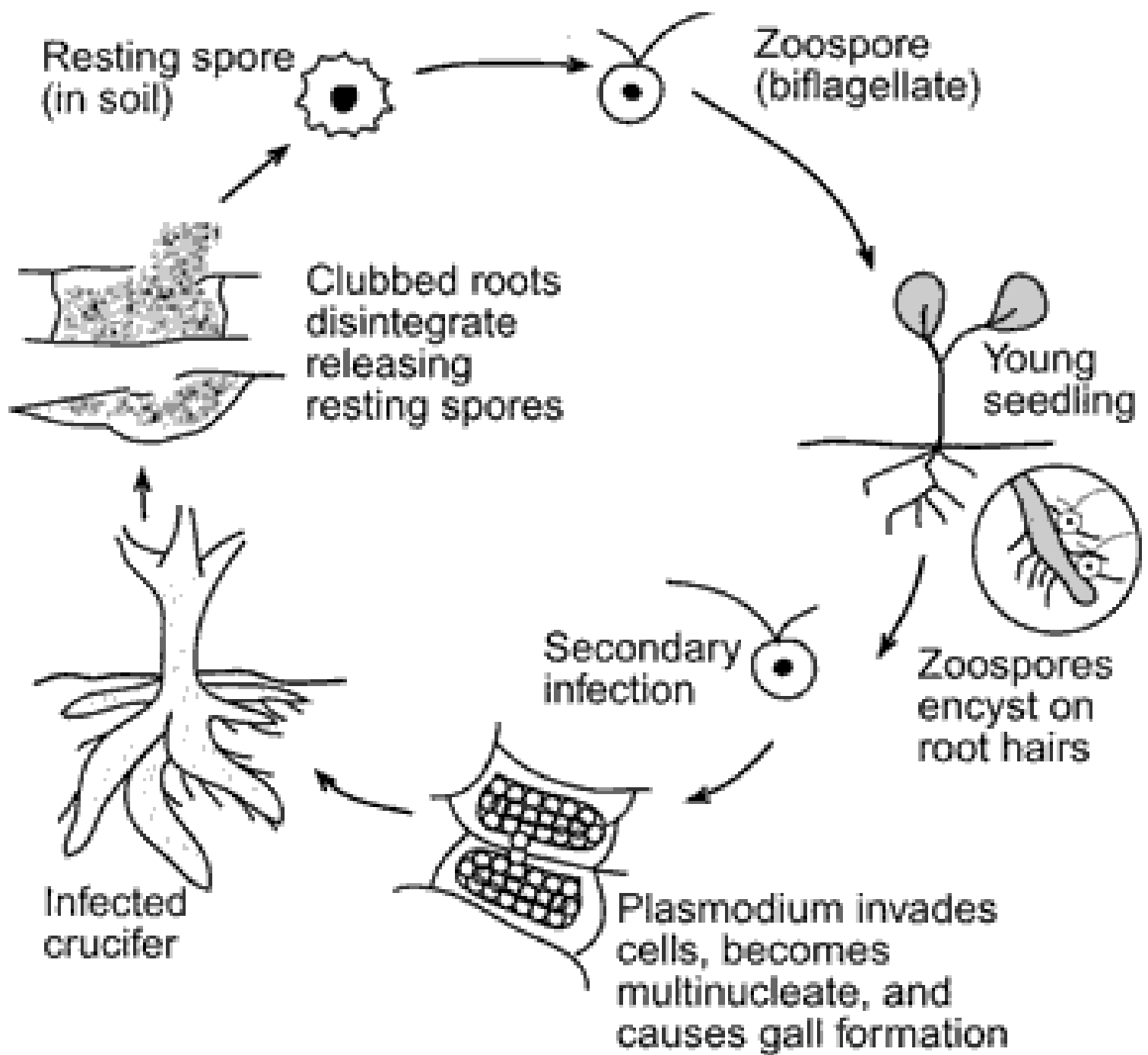
Economics of Canola

Farm Cash Receipts



Clubroot and Canola Industry





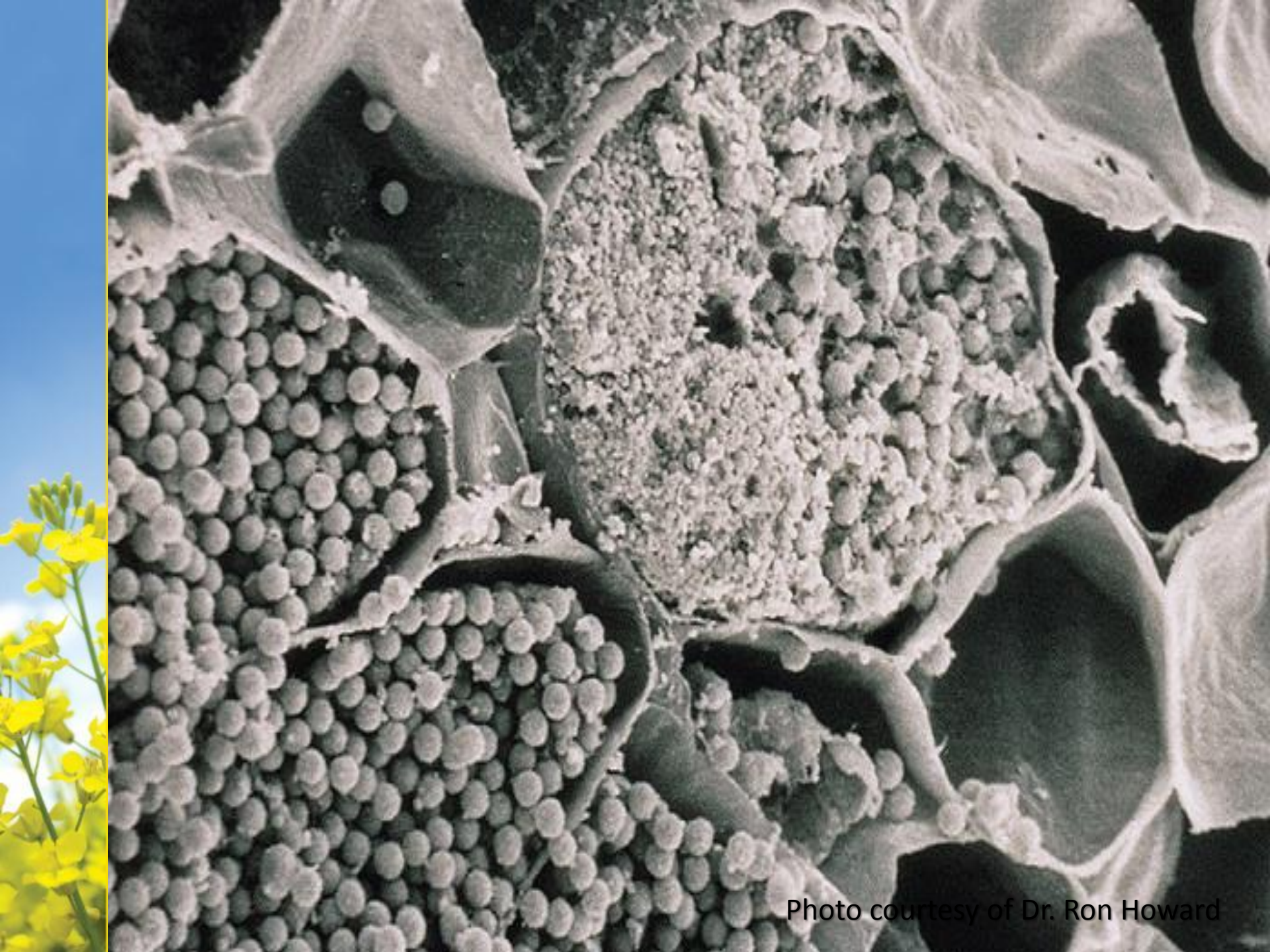


Photo courtesy of Dr. Ron Howard

Clubroot and Canola Industry

Challenges for canola growers:

1. Once established, cannot be eradicated
2. Prevention strategies are very expensive
3. Regulation of the disease is inconsistent and may actually stimulate pathogen spread
4. Relying mainly on clubroot resistance in canola varieties – which may not be a durable solution

Clubroot and Canola Industry

Opportunities that canola growers have now:

- 1. Clubroot resistance**
- 2. Technologies to identify the disease**
- 3. Better understanding**
 - > How disease is spread
 - > What current practices actually work
 - > What environmental conditions stimulate the disease
 - > What agronomic practices stimulate the disease

Clubroot, the CCC and the Canola Industry

The 4-step clubroot control plan:

1. Prevent clubroot from establishing
2. Identify clubroot early
3. Develop a clubroot management plan
4. Work with your municipality

Successes

Clubroot Risk Mitigation Initiative has been a huge success:

- collaborative research model has work very well.
- the body of research has helped canola growers immensely.

Future looks brighter.

- new research on resistance, host-pathogen interactions, chemical controls, and pathogen eradication are exciting

