

**Raymond Leury:** It's a common practice to burn fields after harvest. I'm thinking that this contributes to poor soils with the smoke taking away much of the nutrients. On the other hand, burning may kill weeds or pests. Should farmers stop burning and instead compost the materials so that the nutrients go back to the soil?

**Art Hunter:** (Q) Are groundhogs and other digging animals helpful to the deep soil ECO system?

**Geoff Strong:** What exactly is the damage to soils that commercial herbicides and fertilizers do?

**Martin Green:** The food industry harvests many products before they are ripe and then uses artificial means to manage and (partially) ripen them prior to final sale. Are the impacts of such practices being considered as part of your research?

**Martin Green:** There is significant and increasing production of food in greenhouses. Can you comment on that in the context of organic and regenerative food production?

**Art Hunter:** (Q) In the Ottawa area there seems to be a three year cycle of corn, soy and one year of no tilling to provide for natural regeneration. Is this recommended for soil health?

Jodi Koberinski: Here is the IPES Food (2016) report I heavily reference: <https://ipes-food.org/report/from-uniformity-to-diversity/>

**Martin Green:** What analysis has been done to determine the potential to scale organic growing to feed all Canadians, and indeed all of humanity?

**Geoff Strong:** Doesn't burning fields also destroy much of the micro-organisms in the soil, at least the top layer?

**Ted Manning:** Shifting cultivation for centuries relied on slash and burn but only at modest levels of intensity. When I did studies of past agricultural sustainability in the Yucatan and also in the Philippines we documented the collapse of the agriculture under over intensive use to the point of collapse of the system. The culture knew how long they could come back without overstressing the system. There may be useful morals regarding our own limits to sustainability.

**Karen Murchison:** It certainly can have that impact - one of the benefits of burning (as a long held cultural practice like Jodi identified) is to control soil borne pests, insect larvae, weeds, etc. It also accelerates nutrient cycling and potentially delivers more carbon into the system which are conditions for beneficial microbes

**Jodi Koberinski:** gratitude for your expertise, Sara!

**Jodi Koberinski:** intercropping crucial to healthy systems

**Sara Koul:** Thanks and regards.

**Sara Koul:** Martin...the taste change is related to polyploidy

**Sara Koul:** It happens by introduction of fast grown genetically modified fertilizers which interfere with the flavors and interrupts the polyphenols of plant growth hormones.

Jodi Koberinski: Replying to "What analysis has been done to determine the potential to scale organic growing to feed all Canadians, and indeed all of humanity?"

[https://www.cornucopia.org/2014/03/can-organic-farming-feed-world/?gad\\_source=1&gad\\_campaignid=40849873&gbraid=0AAAAAD3MvEWfBGCpyCb6YiTiGoFRcUJz6&gclid=Cj0KCQjwnbrUBhDOARIsAKKhPpdumCG9-SLbmJjfm\\_8\\_4d5YO2LsTLOS0ROsloBn8ZSogg-FlivQHUcaAvxIEALw\\_wcB](https://www.cornucopia.org/2014/03/can-organic-farming-feed-world/?gad_source=1&gad_campaignid=40849873&gbraid=0AAAAAD3MvEWfBGCpyCb6YiTiGoFRcUJz6&gclid=Cj0KCQjwnbrUBhDOARIsAKKhPpdumCG9-SLbmJjfm_8_4d5YO2LsTLOS0ROsloBn8ZSogg-FlivQHUcaAvxIEALw_wcB)

**Sara Koul:** Burning needs a special technique as it requires mixture of ashes so that microbes are safe and acts as antimicrobial agent. It does not disturb the microbial life

But yes it affects the microbial growth when crop is mono.....

Hence burning requires few protocols.....it also depends on soil to soil

**Meg Sears:** Organic farm's resilience in the US  
<https://preventcancernow.ca/sustainable-agriculture-rickclark-guelph/>

**Katie Fettes:** Replying to "Organic farms's resi..."

Good example

**Blair Erskine:** Is work being done to determine the best way to integrate the thousands of hectares of soil that will be exposed by the melting permafrost?

**Sara Koul:** Thank you to all

**Paul Gurr:** Thank you this was very refreshing and will continue to follow you.

**Katie Fettes:** Replying to "Is work being done t..."

We can follow up on this if you could share your email address, Blair