



Conventional Agriculture is Unsustainable






Common Agricultural Practices

- Plowing or tillage
- Growing monocultures in the belief that diversity means competition.



Credit: Chater Machinery (CC BY 2.0) https://commons.wikimedia.org/wiki/File:Patato_blight_spraying_system.jpg

- Application of chemical fertilizers, herbicides, insecticides, fungicides
- Heavy use of antibiotics



Credit: SlimVirgin U.S. EPA, Public Domain

- Animals in confinement

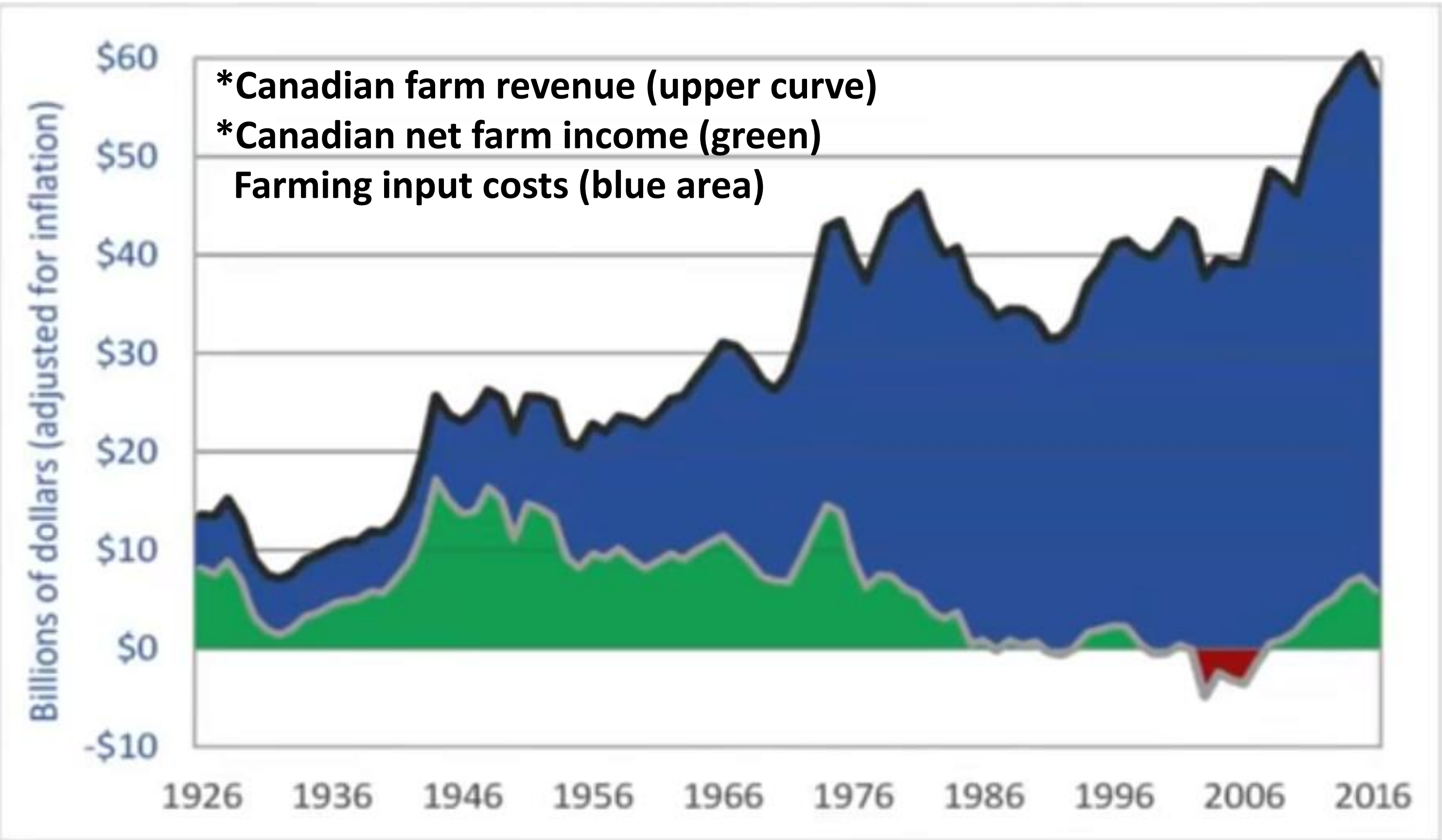
- Plowing turns living soil into dirt & converts soil carbon into CO₂ gas
- For every ton of food produced we lose 7 tons of top soil
- 10 calories of fossil fuel energy used to yield 1 calorie of nutrition
- Massive use of toxic chemicals
- Rapid rise of chemical resistant weeds
- Less than 60 years of farming left on planet Earth
- Expensive inputs bankrupting farmers



According to Dr. Elaine Ingham, the so-called green revolution, the use of fossil-fuel based fertilizers, simply reflects the damage we have done to our soils.

Without the microbes to provide the nutrients plants require, soil becomes dirt and then the only way to grow plants is to add chemicals but that is not sustainable.

Canadian Farmers Being Bankrupted By Rising Input Costs



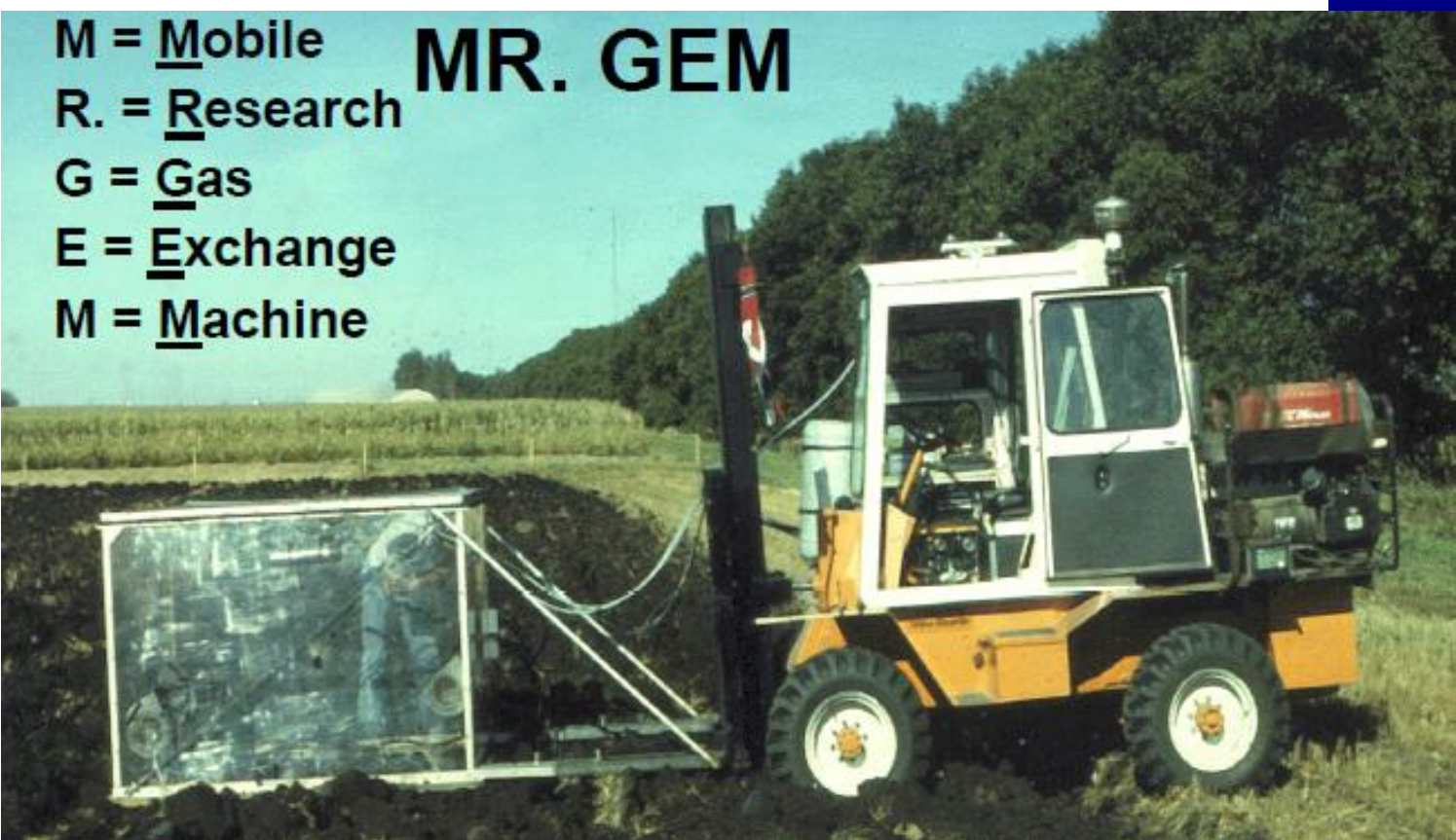
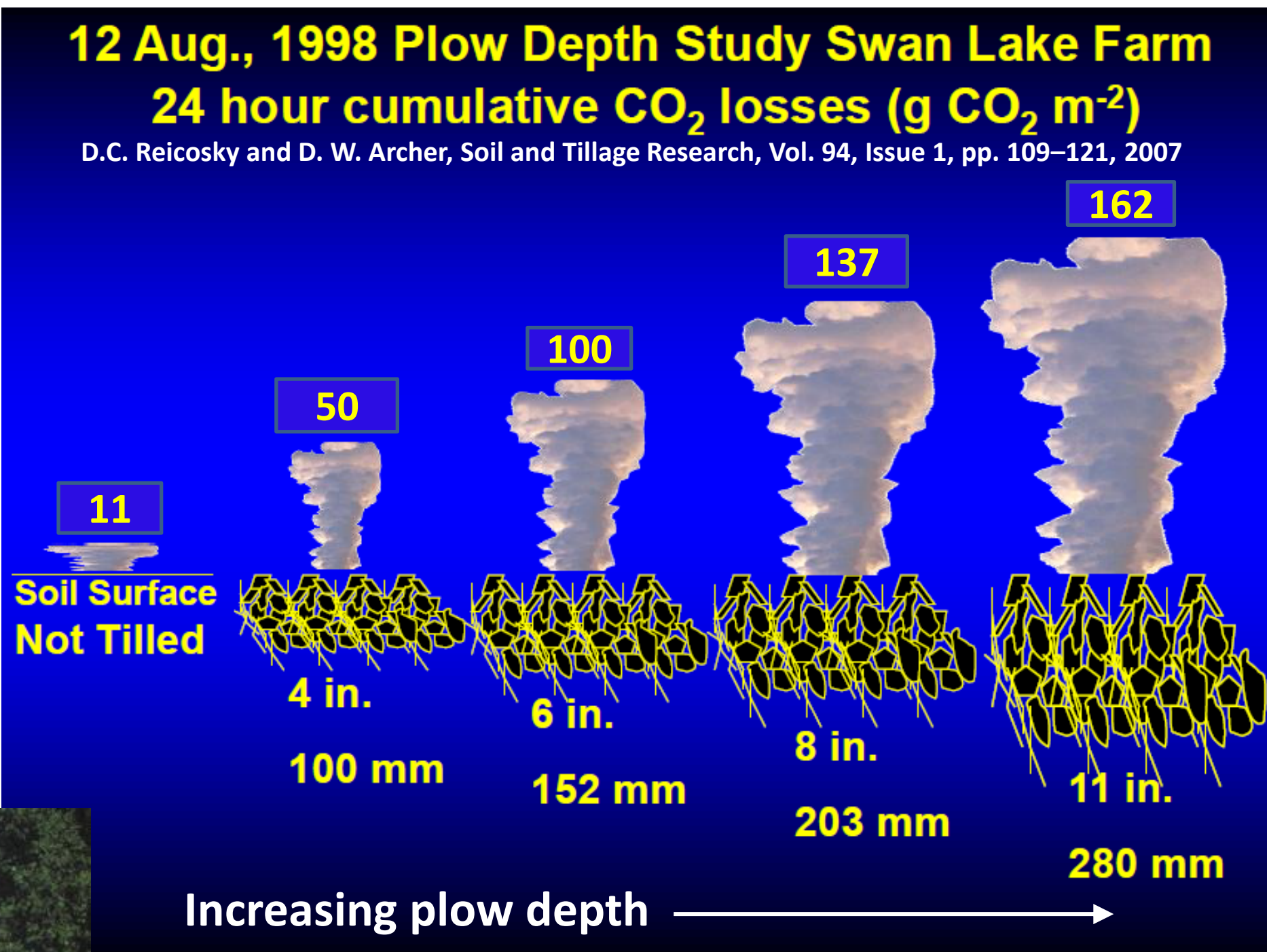
Plowing slices and dices soil structure created by the soil microbes to live in.

The collapse of this soil carbon sponge-like structure means less rain water infiltrates causing more flooding, soil erosion and greater sensitivity to drought.

Plowing Releases Additional CO₂ Greenhouse Gas Emissions

About 20 years ago it was discovered that plowing releases additional soil carbon as atmospheric CO₂.

CO₂ is colorless and odourless so the result was very surprising.



Equipment used for the CO₂ emission study

Plowed to a depth of 11 inches, 15 times as much CO₂ was released into the atmosphere during the 24 hour interval after plowing compared to no-till. For a time interval of 21 days post plowing, the emission was 10 times higher.

In the 32 year period from 1985 to 2016, farming input suppliers (fertilizers, seeds, fuel, pesticides, equipment, banks, accountants) received \$1.32 trillion in revenue from \$1.35 trillion of agricultural production or 98%!

* In both net income and farm revenue, taxpayer-funded farm support payments are subtracted, to remove the masking effects these payments can otherwise create. <http://www.darrinqualman.com/canadian-net-farm-income/>