Twitter Thread by Jim Baird



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I previously ■ documented 20 mechanisms through which climate change is ■■■■■■■ disrupting food production.

Below I am adding to the list including several newly documented mechanisms.

thread

1. Heat stress reducing crop yields https://t.co/7SNN00rNox\xa0

2. Heat stress on farmers (sometimes fatal) https://t.co/jYKjwATe5S, https://t.co/wtcp0kT8Wk\xa0

3. Heat stress on livestock (often fatal) https://t.co/MxogLlksC2, https://t.co/RiJ0A7ezld, https://t.co/rGX2UTTUJM

— Jim Baird (@JimBair62221006) February 14, 2020

Several primary impacts relate to altered soil & plant chemistry & biology:

1. Disruption of the phosphorous cycle - the second most vital element for plants after nitrogen
https://t.co/469VD58O9x

2. Decreased content of key nutrients in major crops

https://t.co/NollJV7ey7

3. Reduced chill hours required for many plants to bloom normally in the spring

https://t.co/yfHFIPZWDt

Other additional primary impacts include:

4. Fossil fuel pollution impacts on crops - this is not a result of climate change per se, but is included since it is due to the same root cause (fossil fuel use):
https://t.co/JJ2Sd0PImH

'future warming and unmitigated ozone pollution in the US, could cause a decline\xa0of 13% in wheat crops, 28% in soybean yield, and 43% in maize by 2050'

& in India, ozone is 'killing crops that could feed 94 million'#ClimateCrisis #AirPollutionhttps://t.co/T3iTCj5C0X

— Jim Baird (@JimBair62221006) September 19, 2020

5. Severe crop damage from wind storms - in this case, ~$7.5 Billion in damage from a single storm:

https://t.co/zGxdZ43wei

6. Also wind (& heat) related - increasing prevalence of ‘furnace winds’.

-these are as bad as they sound - they can damage crops in a few short hours:

https://t.co/43Zh8GhzY6

7. And another phenomenon that is an intensification of the existing- “flash droughts”

https://t.co/sDoYbAJUnA

Consortium of scientists studying "Flash Droughts" that can develop in as little as 2 weeks & "can kill off crops over large areas, as happened across the midwestern United States in 2012"

Will occur with greater intensity & frequency with #ClimateCrisishttps://t.co/sxfv3e1kNM

— Jim Baird (@JimBair62221006) March 28, 2020

New secondary factors include:

1. Hoarding - even at the national/international scale - something we have disturbingly see with #COVID■19.

Don't expect your neighbours and allies to come to the rescue:
https://t.co/T9FAWPFFl8

2. Farmer mental health taking a toll - in the U.S. (https://t.co/V5EQraftiu) and internationally, in extreme cases leading to suicide (https://t.co/VFIe2ipZZy)

Most worryingly, we are now seeing a rapid increase in frequency of extreme weather, whereby farmers are being devastated by 2, 3 or sometimes more incidents in short succession. Recent examples:

a) South Korea hit by a succession of typhoons: https://t.co/UlTGsImjXB

b) In the US: flooding, drought and a derecho storm in Iowa

https://t.co/ZCbQTb9EgR

c) in the UK - Farmers have experienced 'pretty much every weather extreme possible' over the past 12 months

https://t.co/6UKaRuChMo

d) some Australian vineyards have faced "frost, flood, insect attack, bushfire & one of the worst droughts on record— all in the last 18 months"

https://t.co/czfBLFlIwV

