

## Meetings and Announcements

### Fall Horticulture Classes?

In the fall, I have customarily offered one or two horticulture classes, although Covid shut us down last year. It is possible I could offer specific topics or a series of topics, and I've received a couple of requests to offer something. If you have an idea or would like to offer any feedback, please send me an email, [jfkarlik@ucanr.edu](mailto:jfkarlik@ucanr.edu). I have received several emails expressing interest and also suggesting specific topics. I welcome your input.

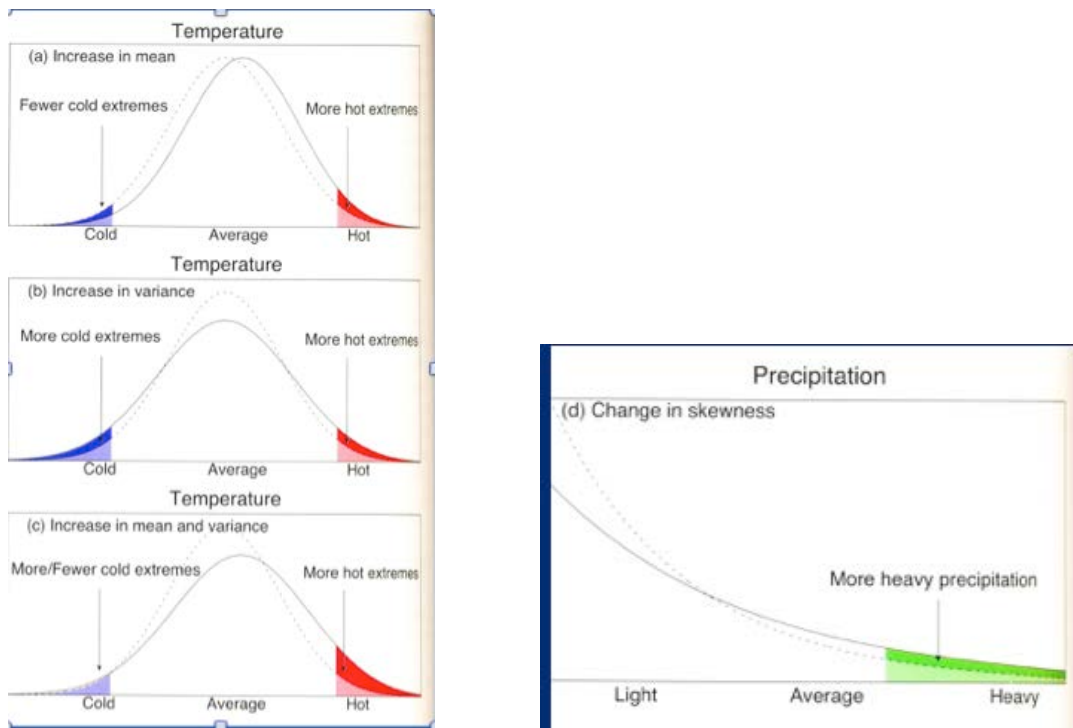
## Climate Change

I shall not here enter into the physics, history, or evidence for climate change. My starting point for this discussion is to assume that climate change is real and its effects can be seen already. In the news we have seen a number of weather-related events, such as very high rainfall over a short period of time (Europe, Japan, the U.S.), and of course, the very warm and dry conditions prevailing in the American West and western Canada. The fire season in California has been extended, with more frequent and larger fires, and we read of major forest fires in other parts of the world, such as Turkey, Greece, parts of the Russian Federation, and Australia. While of themselves these events do not require a changing climate, such events are more likely if global temperatures have increased.

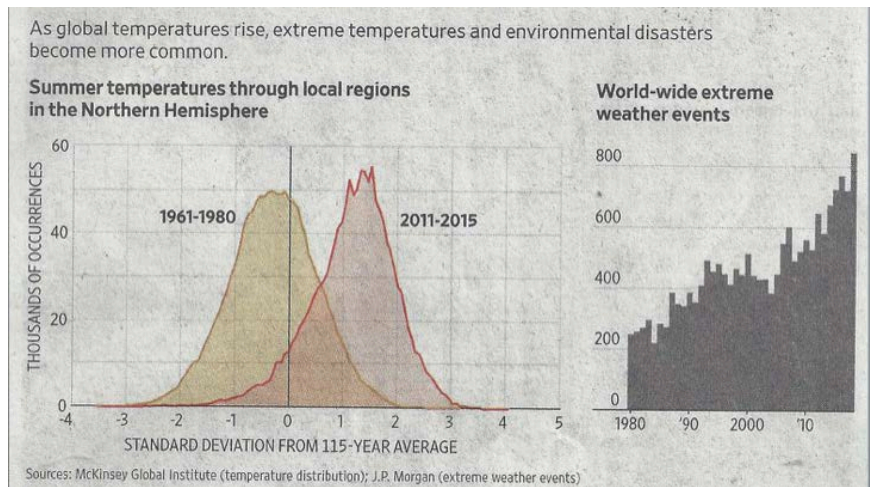
Also in the news is a new Intergovernmental Panel on Climate Change (IPCC) report that is just now being published. This is the first major report since the 2013 IPCC report, a copy of which I have here at the office. The new 2021 report is not available in print yet, but should be available soon.

I'd like to offer information and perspective taken from the 2013 report as well as other sources. I gave four Zoom talks on climate change this past spring, and I draw from those. I am not attempting here to recapitulate the material I offered on Zoom, but only a very few points. One question asked in those Zoom sessions was what a person can do as an individual? I think that is an easier question to discuss compared to what we can or might do collectively as a society to mitigate climate change and its effects.

Let us begin with a couple of figures from the IPCC 2013 report.



From the 2013 IPCC report, p 134, what we would expect to see (and I think are seeing) is an increase in mean (average) temperature and variance (variability), with a net effect of more hot extremes. For precipitation, more heavy precipitation events are expected, especially in the mid-latitudes, since a warmer atmosphere contains more energy and water vapor than a cooler atmosphere.



The figure above is from the Wall Street Journal, January 17, 2020, p. A2, which shows an increase in summer temperatures and an increase in worldwide extreme weather events (without defining those specifically).

What do these figures mean for us? Let me offer several thoughts.

### Warmer temperatures:

- Expect that summers and winters will get warmer, on average
- Nights may not cool off
- Implications for dwelling construction and orientation
- Might need summer air conditioning in previously cool areas
- Garden planting schedules may need to be shifted, and plant selection may be affected
- The number and kinds of pests may change
- Might need to add irrigation for ag crops (mostly done already in California)

### Rainfall:

- Expect high-rainfall events, especially in the eastern 2/3 of the U.S.
  - Do not buy a house on a flood plain
  - Make sure your property has drainage
- Expect there can be severe storms, more in some areas, e.g. mid- and southern U.S., than other parts of the country.
  - Have a storm shelter if needed
  - Prepare for loss of electricity
  - If in hurricane country, have an evacuation plan

### Forest Fires:

- In California and the West, have a defensible space around a house for fire retardation
- Use fire-resistant architecture
- Think carefully about where your cabin or mountain house is located

### Sea Level Rise

- Think carefully about the location of coastal property.

### Perspective About Climate Change

Although we may have read articles in the news about a climate “emergency,” I think it is important to keep perspective and avoid fear. Let me offer a quotation from the time just after atomic weapons were developed—and climate change does not carry with it the suddenness or dread of an atomic attack:

*“In one way we think a great deal too much of the atomic bomb. ‘How are we to live in an atomic age?’ I am tempted to reply: ‘Why, as you would have lived in the sixteenth century when the plague visited London almost every year, or as you would have lived in a Viking age when raiders from Scandinavia might land and cut your throat any night; or indeed, as you are already living in an age of cancer, an age of syphilis, an age of paralysis, an age of air raids, an age of railway accidents, an age of motor accidents.’*”

*“In other words, do not let us begin by exaggerating the novelty of our situation. Believe me, dear sir or madam, you and all whom you love were already sentenced to death before the atomic bomb was invented: and quite a high percentage of us were going to die in unpleasant ways. We had, indeed, one very great advantage over our ancestors—anesthetics; but we have that still. It is perfectly ridiculous to go about whimpering and drawing long faces because the scientists have added one more chance of painful and premature death to a world which already bristled with such chances and in which death itself was not a chance at all, but a certainty*

*“This is the first point to be made: and the first action to be taken is to pull ourselves together. If we are all going to be destroyed by an atomic bomb, let that bomb when it comes find us doing sensible and human things—praying, working, teaching, reading, listening to music, bathing the children, playing tennis, chatting to our friends over a pint and a game of darts—not huddled together like frightened sheep and thinking about bombs. They may break our bodies (a microbe can do that) but they need not dominate our minds.”—C.S. Lewis, 1948*

*John Karlik  
Environmental Horticulture/Environmental Science*

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