



Who Should Regulate Pesticides in Our Food?

252nd ACS National Meeting Philadelphia, PA. August 25, 2016

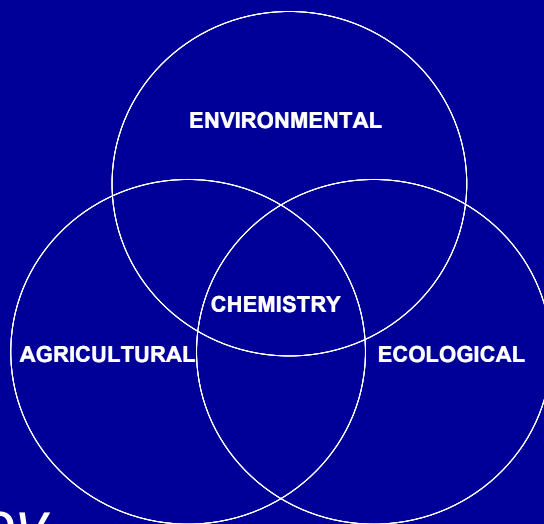
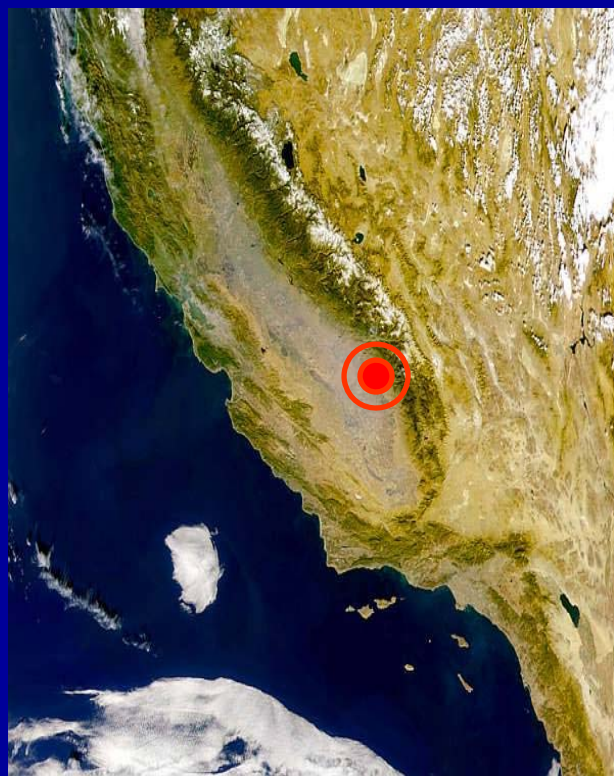
“Contemporary MRL issues for California specialty crops:
things that make you go “hmm?””



"Postharvest chemistry research at USDA-ARS: Breaking specialty crop trade barriers"

Crop Protection & Quality Unit

Spencer S. Walse



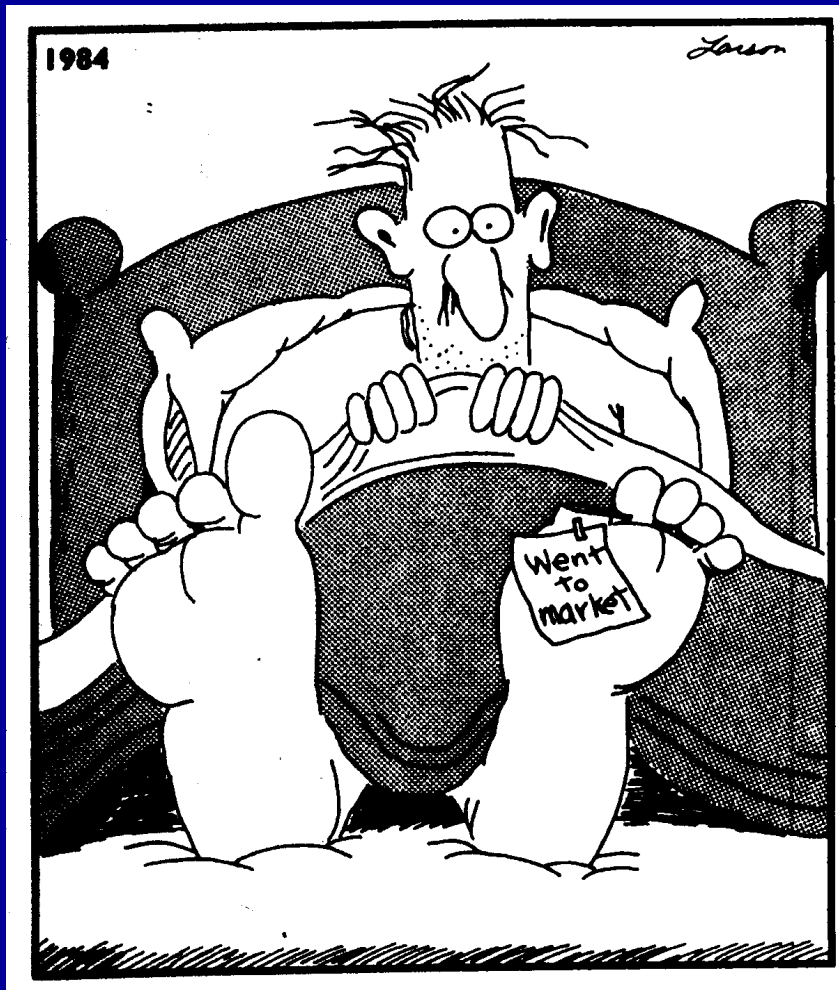
<http://fresno.ars.usda.gov>

<http://agchem.ucdavis.edu/> **UCDAVIS** UNIVERSITY OF CALIFORNIA



30,000 ft view – what do we want to do?

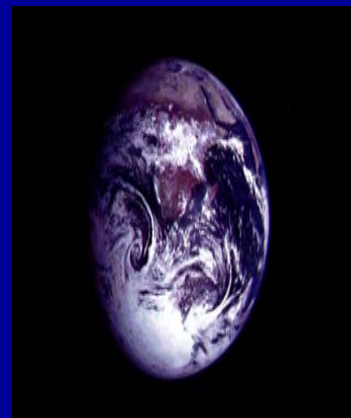
(Proactively) Address Science & Consumer & Regulatory Demands....



....for the Global Ag. Market



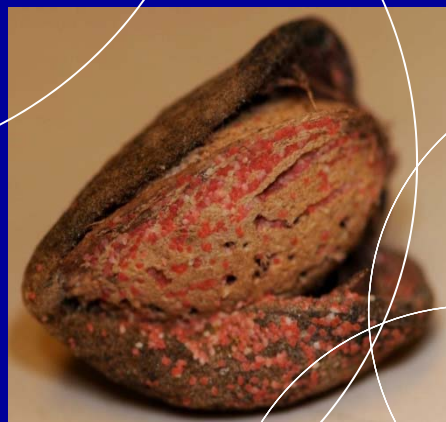
Trade barriers



politics
economics
science



\$



ENVIRONMENTAL

CHEMISTRY

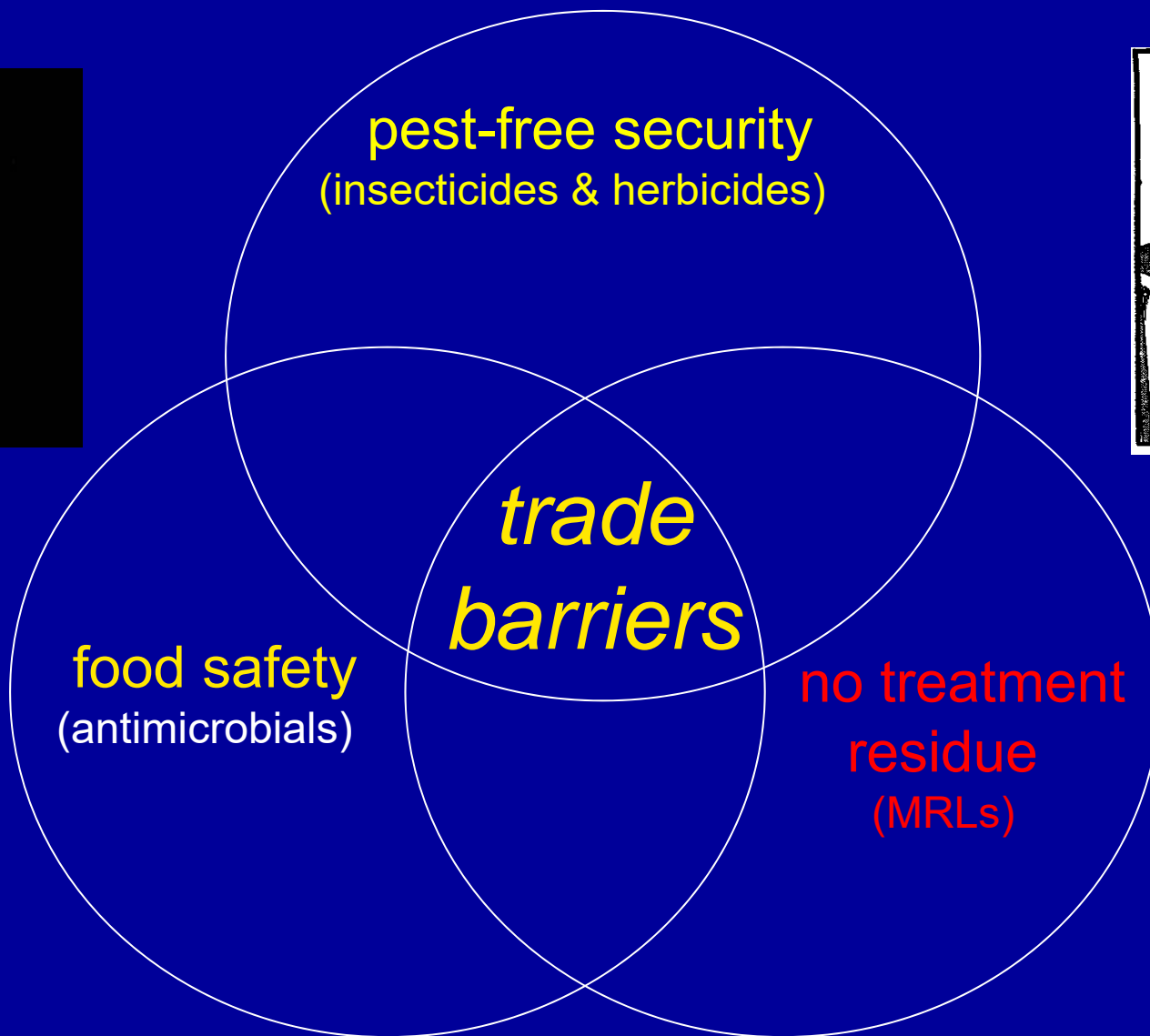
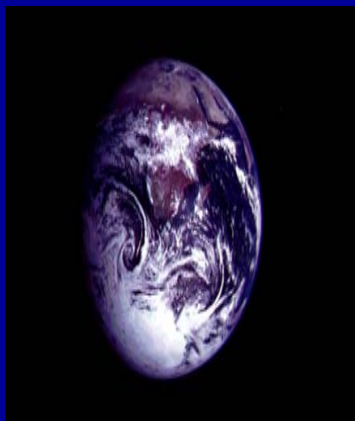
AGRICULTURAL

ECOLOGICAL

hmm?



Consumer Regulatory Ag. Demands (4 Phobias)



Agricultural Conundrum –
must use chemicals, but can't????



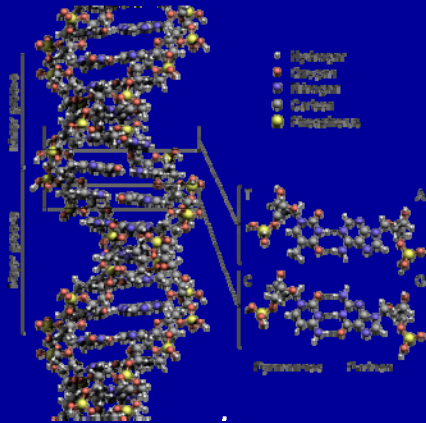
Consumer & Regulatory Ag chem "Phobias" Δ w/ region

<http://phobialist.com/#I->



- Insectophobia – insects
- Iophobia- poison
- Radiophobia – radiation
- Microbiophobia - microbes (germs)
- Genophobia- **Fear of sex** (GMO)
- Chemophobia - chemicals
- Chrometophobia - \$\$ money
- Georgophobia - farms
- Gnosiophobia- knowledge

Opportunity to break trade barriers:



PREPLANT

PRODUCTION

POSTHARVEST

start

finish

“SYSTEMS-BASED”

tapping the “system” to negotiate the agchem conundrum



Who Should Regulate Pesticides in Our Food?

Is this rhetorical? Is this sarcastic?

“**Six Ws** are questions whose answers are considered basic
in information-gathering or problem-solving”

What Pesticides Should we Regulate in Our Food?

When Should we Regulate Pesticides in Our Food?

Where Should we Regulate Pesticides in Our Food?

Why Should we Regulate Pesticides in our Food

How Should we Regulate Pesticides in Our Food?

hmm?



Who Should Regulate Pesticides in Our Food?

Why Should we Regulate Pesticides in Our Food?

- consumers
- workers
- peripherals/nontargets



Human and environmental health



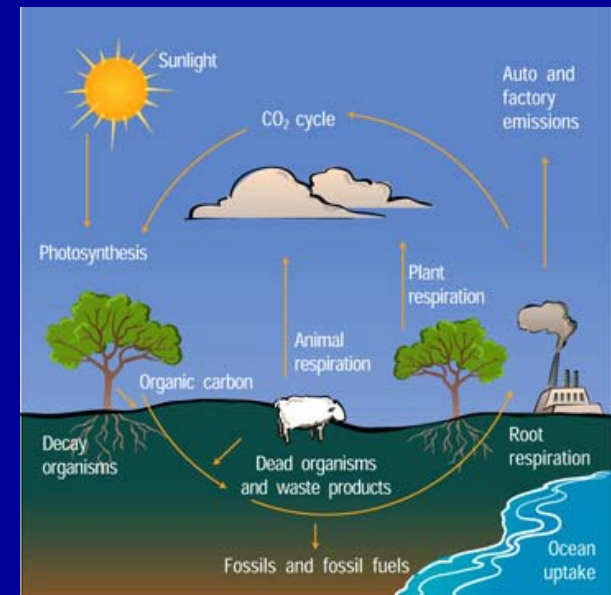
hmm?

Who Should Regulate Pesticides in Our Food?

When Should we Regulate Pesticides in Our Food?

- Application (label)
- Termination (label)
- storage
- distribution
- consumption
- persistence

entirety



hmm?



Who Should Regulate Pesticides in Our Food?

What Pesticides Should we Regulate in Our Food?

- (FIFRA) registered domestic
- import/export food tolerance

Key incongruences:

- food additives
- allergens

All anthropogenics
(some natural)



hmm?



Who Should Regulate Pesticides in Our Food?

Where Should we Regulate Pesticides in Our Food?

- What's consumable
- What's not consumable
- In the environment surrounding our food
- In the environment surrounding what was our food



everywhere

hmm?

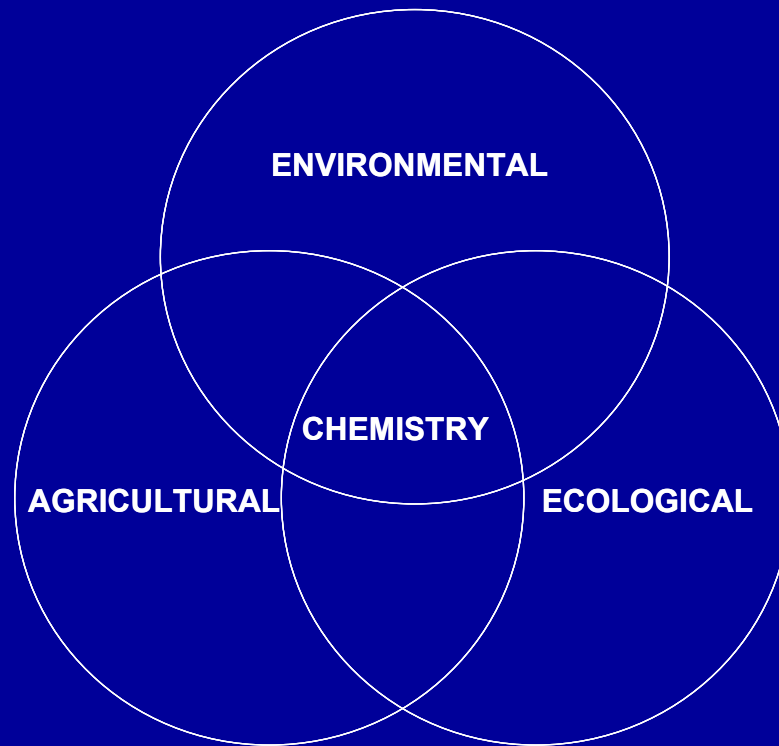




Who Should Regulate Pesticides in Our Food?

How Should we Regulate Pesticides in Our Food?

Science-based policy





Who Should Regulate Pesticides in Our Food?

How Should we Regulate Pesticides in Our Food?

Science-based policy



analytical chemistry

hmm?

- propylene oxide & halohydrins
- morpholine
- chlorate
- phosphonate (PO₃)
- fluoride

Who Should Regulate Pesticides in Our Food?

consumer



- industry ✓
- governments ✓
- international committees ✓
- scientific organizations ✓



hmm?



Who Should Regulate Pesticides in Our Food?

hmm?



2 New Phobias per 252nd ACS 2016

Metathesiophobia- Fear of changes
Macrophobia- Fear of long waits

Thank you!

