

# Unit 7: Water and Food

*Chapters 12, 13 & 14*

# Water, Food & Agriculture

Farmland

# Water

## Hydrologic cycle review

Let's explore streams and watersheds lakes, ponds.

# An unpleasant reality



1,000 tons of fatty waste embedded with dirty nappies, used condoms and blood soaked sanitary towels

# How it's supposed to work

From Flush to Finish

27 minutes

# Terrestrial water

Wetlands, estuaries, beaches?

What's the difference?

# Ecological cost



It takes **TIME**, and we are running out of it.

# Every Last Drop

Explore YOUR usage

3 minutes



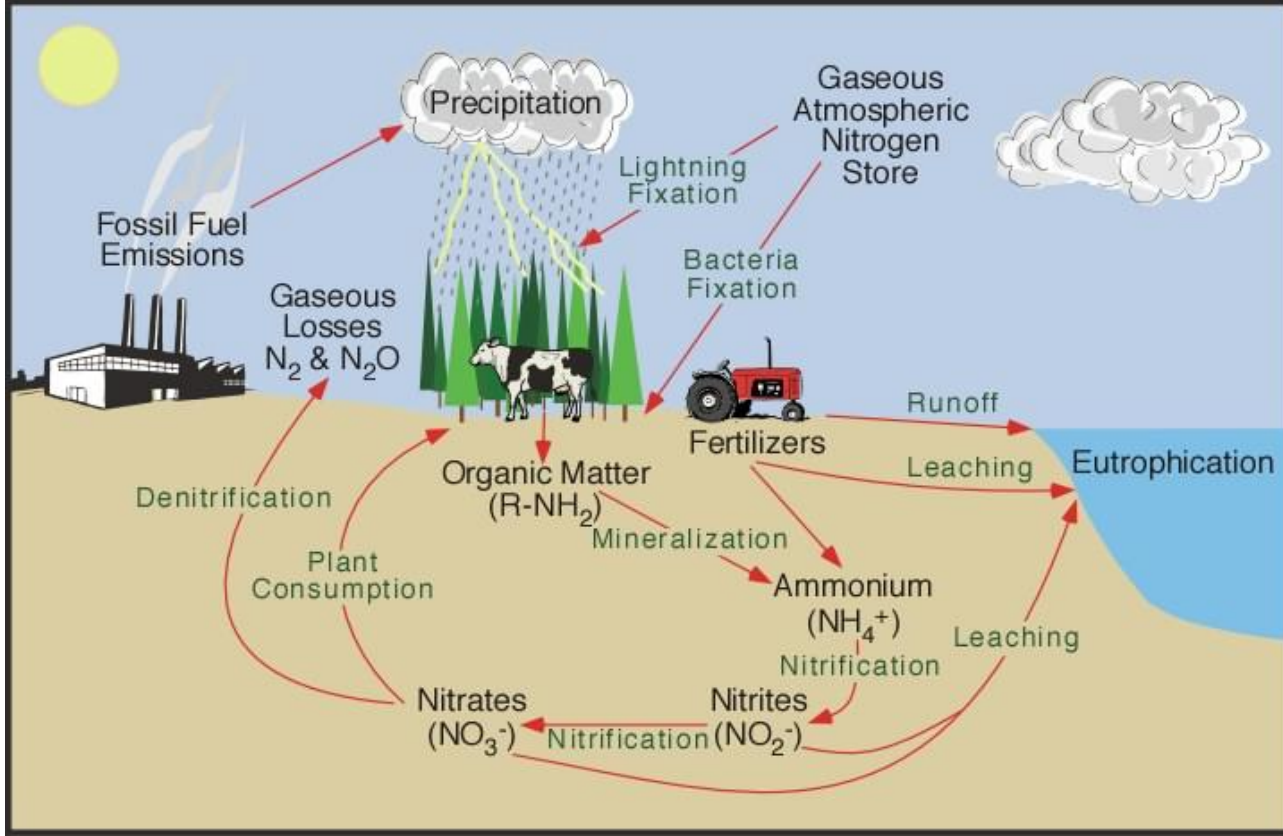
# Reduction of water

Think about this:

How would you live without water? (Detroit, summer  
2014)

How can you conserve? How can you protect?

# Food & Agriculture



# Soil/plant-ology

From fertility to overuse to conservation.



8 million acres of polluted soil in China

# The Ravenous Beasts We Are

## The Challenge

### Supply-side

### Demand-side

#### Pizza:

- Daily price variability
- Weekly changes in suppliers
- New Quality reporting
- Traceability challenges based on recipe changes for product options

#### Packaging/Shipping:

- Frozen Line 'cold carriers'
- Restaurant Line - DSD to local chains
- Each item needs to be recorded/traced

#### Consumer Preference for whole grain:

- Reduces white flour demand:  
Northeast: 48%  
Southeast: 2%
- Increase whole grain suppliers
- Monitor channel inventory

#### Olives:

New labeling requirements  
**Traveled 5,000 miles.**

#### Tomatoes:

Weekly Price changes  
Increase over 40% in 2011  
**Traveled 2,900 miles.**

#### California Red Onions:

Price increase  
**Traveled 3,000 miles.**

#### Peppers:

Dozens of recalls in category  
**Traveled 750 miles.**

#### Canadian Wheat:

Import requiring labels  
license and database to maintain  
records and reports  
**Traveled 1,800 miles.**

#### Mushrooms:

Shipment spoilage due to  
temperature variability in shipment.  
Replaced with retail supplies at retail price  
**Traveled 5,000 miles.**

**Produce price volatility:**  
Requires price/margin  
adjustments by restaurants  
and grocers



Each ingredient has a different ecological impact from growth to mouth.

# Connect it!

Think a little deeper about this topic.

How can law enforcement be impacted?