

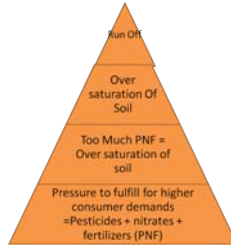
Preventing Fertilizer Runoff

Mechanism (How this is going to Work)

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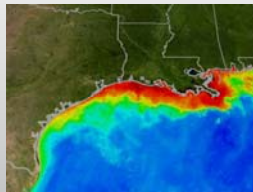
Background

- Agricultural runoff is a byproduct of increased yields from fertilizers and herbicides
- Quantity vs. Quality
- Produce high yields, using least amount of time
- Even higher demand for crops serving multiple purposes
- Example: Corn



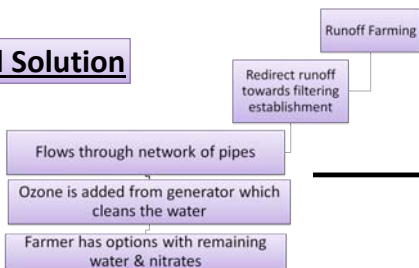
•How do we reduce agricultural runoff, while maintaining high yields?

Example: The Chesapeake Bay



- Abundant Seafood production was significantly affected by runoff
- Current marine dead zone in the Chesapeake bay.
- Oxygen level of water depleted so neither aquatic life nor vegetation can exist.

Proposed Solution



Proposal

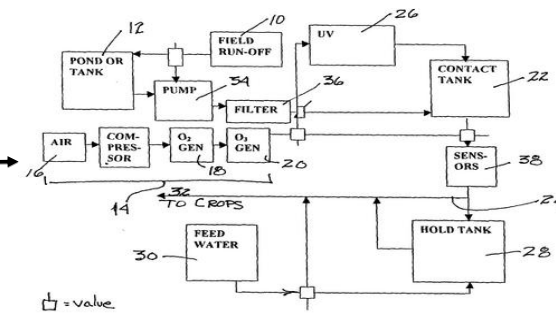
- Our solution is to accomplish two main objectives:
 - Reduce the amount of agricultural runoff;
 - Have no effect on the amount of corn being produced by farms.
- Runoff farming + filtration system = Our Solution

Mechanisms

- Two part strategy;
 - Runoff capture & filtration (runoff farming)
 - Start up of a financial chapter that will aid in the costs of installing this system
- Runoff farming lowers;
 - The amount of fertilizer used
 - Quantity of water that must be added to the field from an external source

Assessing Water Quality

- Knowing the current status of the water will allow for further testing.
 - Drinking water in Massachusetts may contain no more than 10.0 mg/l of nitrate-nitrogen
 - Ground water quality ensured by the federal and state commonwealth's standards.
 - Samples must show the quality of unaffected water and its passing through the contaminated area



- Motivation for farmers;
- Using less of these resources will lower the farmers' total expenses
- Cap and Trade system;
 - applied to water pollution
 - offers additional income for farmers operating below their runoff limit
- Financial aid in the form of tax credit
- Low interest loans for installation of system

Our Target Audience

- Farmers
- EPA(Environmental Protection Agency)
- Scholarly Journals, Environmental Magazines, Farmers Magazines
- The National Grange
- Agricultural Centers
- Fresh fruit market owners

