

Student Conference for Research and Creative Arts

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2016 eAbstracts

INDH 3333- Environmental Safety & Health

Faculty Sponsor: Dr. Magdy Akladios

Cause and Effect of Oil Spills

by Casie Jupe, Keerthi Roy Indupalli and Aleksandre Gvetadze

Casie Jupe, Keerthi Roy Indupalli, Aleksandre
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Cause and Effect of Oil Spills
INDH 3333- Environmental Safety & Health
Dr. Magdy Akladios

Our project will be focused on Oil spills, and their after effects. We will focus on major events of oil spills including at production site and during transport and storage. The effects these spills will have on population in vicinity and what effect these spills have on local fauna and flora.

INDH 5336 - Safety, Health & Environmental Issues

Faculty Sponsor: Dr. Magdy Akladios

Analysis of Radiation Terrorist Threats to the U.S.

by Julius Cheeks, Lanre Dawodu and Kayla Parker

THE EFFECTS OF EXCESS NITROGEN
IN THE SOIL AND WATERWAYS

Julius Cheeks • Lanre Dawodu • Kayla Parker
INDH 5336 Safety, Health and Environmental Issues
Dr. Magdy Akladios

Nitrogen is the most abundant element present in the air we breathe and is an important part of all living tissues. Waste from industrial plants, septic tanks, fossil

fuels, and manure storage all release excess amounts of nitrogen into the soil. Nitrogen aids in plant growth so well that the largest commercial use for nitrogen is in fertilizers, making fertilizers the largest source of excess amounts of nitrogen. High concentrations of nitrogen in the soil can leech into the waterways and can cause many health and environmental problems such as methemoglobinemia, also known as blue baby syndrome, and environmental dead zones. One way to decrease the health risks of high concentrations of nitrogen in the soil that eventually finds its way into our water is "nitrate clean up". Distillation, reverse osmosis, ion-exchange, blending, and bio-chemical denitrification are ways that nitrate can be removed from water. Rather than cleaning up already contaminated waters farmers could easily reduce the amount of nitrogen applied to crops, but most farmers don't want to risk not getting a good yield of crops. An alternative form of prevention is planting trees, shrubs and grass around crop fields to help absorb nitrogen from the soil before it reaches water. Nitrogen pollution not only affects human health and the environment, it also affects the price of our drinking water and has significant impact on the economy. Some scientists predict that by the year 2030 the amount of nitrogen fixed by human activities will surpass the amount fixed by natural processes. Because of this, there is a bigger emphasis on finding a solution for treating the excess amount of nitrogen used for crop production and reducing the nitrogen that is present to safe levels for the environment and for consumption by humans and animals.

Keywords: Nitrogen, Nitrate, Mineralization, Dentrification, Pollution

Date Updated: 13-Mar-2016

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The choice
is clear.