



Disclosure Number: Ag -1017

## **Oil-Water Separator/Skimmer**

**Inventor:** Chandra Theegala

### **Description:**

LSU AgCenter scientists have developed a novel oil water separator that has no moving parts. The separator relies on the principles of physics and fluid flow in a U-tube. The separator uses a simple diaphragm pump to suck in the oil/water mixture (in any ratio) and separate them with over 99% efficiency. It is a very cost effective technique for removing oil from water because there is no need for expensive and energy intensive components like centrifuges. LSU AgCenter has two demo units sized to handle a combined flow of 2 gpm and 70 gpm. Both Deep Sea and Shallow Coast designs are available to make it versatile and effective in different areas.

### **Advantages:**

- Low cost units
- Very low energy requirement
- Highly efficient in separating floating oils (>99% in lab tests)
- No scale-up limits (70 gpm, 700 gpm or 10,000 gpm)
- Can be manufactured quickly and locally
- Deep Sea and Shallow Coast designs are available

### **Commercial Uses:**

- Floating oil clean-up
- Industrial separation of oily water
- Separation of two liquids with density difference
- Pre-skimmer for other commercial skimmers

### **Current Status:**

- Provisional patent filed.
- LSU AgCenter is interested in licensing the technology

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