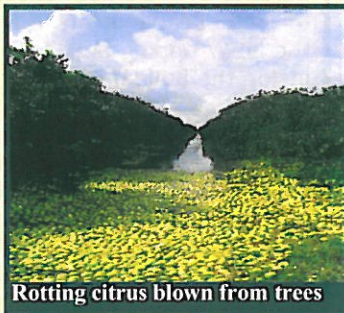


E News Quarterly Update

**Hurricane Damage to Florida
Agriculture Estimated at \$3 Billion**

As a result of being battered by four hurricanes in six weeks, damage to Florida's \$62 billion agricultural industry is estimated to be approximately \$3 billion when all the toppled citrus trees, shattered greenhouses and fallen fruit are counted. A spokesperson for Florida agriculture commissioner, Charlie Bronson, was quoted as saying that the agriculture department had documented \$2.1 billion to \$2.2 billion in structural and crop damage from hurricanes Charley and Frances alone. Hurricane Ivan affected mainly cotton and peanuts in the far west of the state and Jeanne howled through prime grapefruit country added to the industry's devastation.



Rotting citrus blown from trees

The damage was spread across all agricultural sectors, from the \$10 billion a year nursery industry to the \$9.1 billion a year citrus industry that grows premium grapefruits and oranges for the fresh fruit and juice markets. The poultry, dairy, timber, sugar and aquaculture industries also got pummeled during the harsh bout of stormy weather. The devastation to beef cattle industry of Florida brought on by Charley and Frances has been estimated to be \$100 to \$150 million dollars to farm and ranch structures, shops, hay barns, horse barns, fences, cow pens, feeders, mineral boxes, pump houses, feed bins and ranch homes.

The federal government has already authorized around \$500 million in disaster aid for farmers in Florida and the state government will be seeking more. The 2004 hurricane season may prove to be costliest on record.

**Hurricane Mulch Grows by
Leaps and Bounds**

Hurricane Jeanne became the fourth in a series of powerful hurricanes to slam into Florida in two months. Weeks later clean-up of storm debris continues across the state. The winds may have subsided and river levels are beginning to return to normal levels but many county and city governments have been hard pressed to collect mountains of storm debris. Weakened trees not toppled during the first three hurricanes of the season were sure to become victims of Jeanne's powerful winds peaking at 120 miles per hour.



Efforts are currently under way to determine the amount of vegetative material (tree limbs, branches, trucks, and shrubs) collected and ground into mulch. FORCE is committed to assisting in data collection of recyclable organics generated as the result of these devastating storms. In addition to determine how much organic storm debris was generated, FORCE is dedicated to supporting the industry identifying product end users.



Cleaning up after the storms

MSW Composting Facility Recognized for Excellence

The Sumter County municipal solid waste composting facility has once again been recognized for excellence. Mr. Chuck Jett, Solid Waste Superintendent, and Mr. Jimmy Wise, Lead Compost Technician, accepted the **Eweson Award** (named for the first founding inventor of the "in-vessel digester") for facility excellence. The award was accepted during a seminar held this month in Pinetop, Arizona.

The nationally attended seminar focused on innovative research of microbial life in organic compost, preventative maintenance, and troubleshooting. Throughout the seminar, discussions were held on recommended best management practices providing opportunities for exchange of information on operational improvements and troubleshooting.

At the end of the seminar, a ballot was cast allowing seminar participants to nominate a facility which best exemplifies excellence in their field.

Sumter County's Solid Waste Facility was chosen to be recognized as an industry leader in the effort to recycle and reutilize resources.



Pictured above are employees of the Solid Waste Facility. Mr. Chuck Jett, Superintendent, stands in the center with the Eweson Award.

**Congratulations to
 Sumter County!**

FORCE FOCUS— Project Update

Odor Control Demonstration Project Underway

The treatment of the broad spectrum of odorous gases that originate from MSW and bio-solids is a concern to most organics recycling facilities around the state of Florida. FORCE is currently sponsoring a demonstration and evaluation of the performance of a new odor product and the advantages for the composting and waste collection industries. This demonstration project is being carried out at the Sumter County Solid Waste Facility in Lake Panasoffkee.

Principal Investigator and Project Manager, Bob Broom of RKB Enterprises, explains the purpose of the treatment is to diminish odor to unnoticeable levels in any location around the MSW tipping building and minimize odor inside the building.

Broom clarifies that the vast majority of problem odors in the waste, composting and wastewater industries are the results of either reduction reactions, or incomplete oxidation reactions. Sulfides and mercaptans are formed by reduction reactions while alcohols, aldehydes, and ketones are formed by incomplete oxidations. These compounds can be ionized, oxidized or further broken down into odorless end products. Ultimately they can be broken down into ionic forms of their nutrients, along with carbon dioxide, and water or water vapor. For example, hydrogen sulfide may be oxidized to sulfate, alcohols may be oxidized to aldehydes and ketones, aldehydes and ketones may be esterified, and then hydrolyzed.

The problem for all deodorization systems is how to cause the necessary chemical reactions to occur safely and predictably. With odor control treatments an actual chemical change is desired. It is essential that contact occur between the odorous gas and the agent for change to occur. (Continued on page three)

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