

The Newsboy

News for Members of San Luis Valley Rural Electric Cooperative

Turkey Manure Plus Straw Equals ...

It's not your average recipe. Turkey manure, some straw, a few wood chips, a little cow manure and maybe even a dash of worm casting tea.

Compost Technologies mixes these ingredients—considered waste products by many—in a controlled setting to produce nutrient-rich compost. The company was founded in 2002 by Mark and Charla Inness along with partners Richard and Janet Noe.

Water

It's not a simple process. First, making compost in the Valley's arid climate takes water. The Inness' and Noe's spent several years working to obtain the right to water their product. Obtaining legal water rights required the company to relinquish water rights on other land.

"We had to dry up farmland and develop a complete management plan for the process," Richard said.

Science

Then, there is the science. Making compost on a grand scale requires an understanding of how each of the raw ingredients interacts with the others. For example, to reach temperatures high enough to kill harmful bacteria, the mixture must contain the correct balance of carbon and nitrogen. During the composting process, Mark checks samples of the product under a microscope to make sure that it con-

tains desirable biologically active fungus and bacteria.

Food safety concerns prompted the federal government to set composting standards. The National Organic Program (NOP) defines composting as a managed process in which organic materials are decomposed aerobically by microbial action. Microbial respiration generates heat. Heat generated within windrows of the composting raw materials kills any pathogens they may have once contained.

To meet NOP standards, compost must heat to at least 131 °F and remain there for a minimum of 15 days with five turns. Compost Technologies turns their compost when it reaches 145 °F, exceeding the standard.

"We ensure that our temperatures are high enough to kill pathogens. We

monitor the process and keep a log. That log is reviewed by the EPA. We make sure we have a complete compost process to ensure a safe product. You can't skip steps. Food safety is one of our key concerns," Mark said.

Obtaining Raw Materials

Unfortunately, the best raw material for producing high-quality, consistent compost, turkey manure, is not readily available in the Valley. The company hauls turkey manure from Greeley. On the average, the company brings about 600 semi loads of manure to the Valley each year. Other materials are obtained locally.

"The haul is unavoidable. Turkey growers bed their animals in wood

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Mark Inness helps setup tractor forks to prepare new windrows of raw materials for composting. Straw bales are lined up, then tractor forks "fluff" the straw. A loader adds manure and other ingredients. The pile is fluffed and turned at least five times as microbes transform the raw materials into the sweet-smelling product shown on the left.

Electric cooperatives give members what they want. We don't sell members more power than they use. We don't make a profit on the power our members purchase. We offer the combination of services and programs our members want and need using a price structure that covers costs.

However, in today's energy climate, this is a challenge. Federal and state legislatures are mandating that we move away from traditional generation sources and toward renewable energy to protect our climate and reduce our dependence upon foreign oil. We concur that this transition makes sense. Yet, we wonder if our legislators are moving too quickly.

We ponder questions like: Do we have the technology to meet the requirements lawmakers have set? Are people willing to accept the increases in power costs that mandated changes will create? Can the Valley benefit economically from solar energy development without adverse impacts upon our quality of life? Do we have enough generation sources available to meet demand?

Of these questions, we are not able to solve the first. That must be left to the scientists and researchers. But, we can get a better understanding on the others by asking our members and community leaders how they feel about the issues facing our utility cooperative today.

To do that, SLVREC has established a focus group comprised of county commissioners, town officials, media representatives, representatives from other utilities and community leaders. Among this group, many have influence at both the state and national levels.

We will meet for the first time

on March 4. We hope to enter a dialog—to find out what people want and to share our concerns about what the future brings for our industry and the Valley. We believe, that as a utility cooperative, we can offer information and insights about our industry.

From my perspective as CEO of your cooperative, I see many newspaper and magazine articles on global warming and energy issues that only tell part of the story. For the sake of space or time, details and facts are omitted and technical difficulties are glossed over.

I am not pointing fingers at the media; they are doing a good job. There is no doubt that ours is a complicated industry faced with many problems and no easy answers. I don't believe our focus group will address all the nuances of our industry either.

However, a dialog puts us in a better position to understand our member needs. I hope it will also help local communities and community leaders better understand the issues we face. Issues like:

- the need to develop new base-load generation
- the difficulty in obtaining permits to build new generation facilities
- the challenges of integrating renewable energy into existing generation portfolios

There are no easy solutions. We aren't going to be able to solve energy problems in Colorado, in the U.S. or in the world. Our dialog will probably raise more questions than answers. I hope though, that a dialog will help us take steps forward here, in our Valley. That's a goal I believe we can achieve.



SLVREC CEO, John Villyard

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E-mail power@slvrec.com
Use the e-mail address above to send a message to any director or to the CEO. Your E-mail will be forwarded based upon the direction you provide in your message.

The Board of Directors meets the last Tuesday of each month unless otherwise stated. Members are welcome to attend.

CEO

John Villyard	719-589-5038
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Scheduled Meetings

Board Meeting March 25, 9:30 a.m.

Statement of Publisher

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Touchstone EnergySM
The power of human connections

John R. Villyard

Murray's Presentation at Ag Conference Well Attended



Murray said, "Comanche is a very reliable power source."

Adding a way to deliver power to the Valley from Comanche would also help to address voltage collapse issues. Murray sited a problem in the summer of 2004 when irrigators lost power due to a voltage collapse. He said that increasing power demand due to growth in the Valley could make similar situations more likely in the future.

Murray also talked about how a new transmission line would be instrumental in helping to develop renewable power generation sources in the Valley. Without a way to get power out of the Valley, developing renewable power in the Valley may not be economically feasible.

The process to add a new transmission line will take time. First the siting study must be completed. Then Tri-State will embark upon a public involvement phase. Next, the generation association will complete an environmental assessment in order to comply with the National Environmental Policy Act (NEPA). Finally, Tri-State would seek permits and easements along the transmission line right-of-way. At this time, Tri-State estimates an in-service date of 2011 for the line.

Murray concluded his presentation by asking those attending to support the process. He stated that without public support, the project would be difficult to complete. For more information about the project, visit Tri-State's web site at www.tristat-egt.org or contact Jim Clare at SLVREC. ☞

Close to 90 people listened to Mark Murray, Permitting and Land Rights Manager for Tri-State Generation & Transmission, discuss power delivery challenges facing Tri-State at the Southern Rocky Mountain Agricultural Conference and Trade Fair.

One issue that causes Tri-State concern, according to Murray, is the radial feed system that brings power to the Valley. With a radial feed system, power arrives at one central spot and feeds out from there. An interruption on the main line delivering that power could affect most, or all, of the cooperative's substations and create a widespread outage. Such an outage occurred in 2000 when a crow dropped a piece of rebar into the transmission line.

Tri-State is currently working on a proposal that would address this and other power delivery concerns. They have initiated a siting study that will identify possible powerline corridor locations to bring power to the Valley from the Comanche plant near Walsenburg.

Go Green!

The list of green power participants is growing! Last year, SLVREC set a goal of having 800 green power program participants by the end of 2008. Many of the cooperative's members have stepped up to the plate to help reach that goal. Compost Technologies (see article on page 1) is one of many businesses that purchases blocks of green power.

Because of the way the electric grid works, power produced by renewable sources intermingles with power produced by conventional generation sources in the transmission grid. When you sign up for green power, every 100 kWh block you buy guarantees that this much renewably generated power enters the transmission grid. Your purchase of renewable energy offsets the production of power from conventionally generated sources. There's no easier way to go green!

On March 1 the price of green power decreases to \$0.80 per 100 kWh. In the future, the additional cost for green power will be tied to market rates and adjusted accordingly. Sign up today and join the ranks of those who support renewable energy. Call customer service for more information. ☞



SLVREC's goal: 800 green power program participants by 2008.
Call today to sign up for green power!

719-852-3538 • 800-332-7634 • power@slvrec.com

(Compost Technologies: Continued from page 1)

chips. The mixture has high nitrogen levels and some carbon too. It's better balanced for our use than chicken or cow manure; although, we do use cow manure too," Mark said.

The amount of manure created by turkey farms in Greeley is a problem. By hauling manure away, Compost Technologies helps solve that problem for some turkey farmers.

Not Just for Organic Farms

Although the product meets NOP requirements, it's not just for organic farms. Inness said, "Compost has long-term soil benefits. It introduces active microbes which improve soil health. It reduces erosion because it helps soil particles cling together. Compost retains it's own weight in water so incorporating it into the soil increases the soil's ability to retain water. Organic farms rely on compost; but, compost will benefit those who use traditional chemical farming methods too. It keeps soil active."

Richard agreed that adding compost keeps soil alive and healthy. He and his wife also manage Bassett Farms. They have been using compost on their fields for close to a decade now. He said, "Mark approached me years ago. We tried a couple of quarters and liked it. One thing led to another and I got involved in this company because this is a product I really believe in. I will tell you, we have fewer nematode problems on treated fields."

Science backs that claim. An impressive num-

ber of studies suggest that improving soil health improves plant health which in turn helps to make plants more resistant to pest problems. (Those who are interested in doing research on this topic will find a list of white papers at www.soilfoodweb.com. This is a good place to start.)



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Worms

In recent years, the company has added a new workforce: worms. Worm castings—or worm poop to the uninitiated—offers a host of benefits to plants.

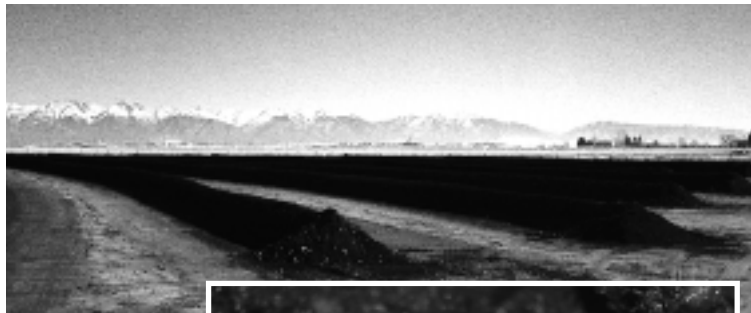
Studies also support the value of vermicompost tea in suppressing plant parasitic nematodes and arthropod pests. For an example of such a study, see Edwards, Arancon, Emerson and Pulliam, December 2007, in *BioCycle*.

Compost Technologies offers vermicompost tea to farmers for field applications. "It is applied in the same way a farmer would chemigate his field. Only, the tea doesn't contain chemicals. It's a brew of worm castings and water," Mark said.

Compost Technologies' worms are housed in a potato cellar. Richard and Mark joke that they have the largest concentration of livestock per square foot in the Valley. And, yes, the worms are cared for on a daily basis just like any other animal. They must be kept warm, watered and fed.

The sheer number of worms in the cellar boggles the mind. The worms are contained in specially

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Compost Technologies offers farmers and gardeners two products. Above, windrows of completed compost will be screened to remove rocks and wood chunks as a final step. The company also offers vermicompost tea produced from steeping



worm castings in water. Above, red wiggler worms (*Eisenia foetida*) produce the castings used to make the tea. As they feed, the worms swallow great quantities of organic material and expel the residue as worm castings. The castings are rich in nitrogen, phosphorous and potassium. The worms are extremely prolific. After a pair copulates, both have babies. The arrow on the left side of the picture points to a baby worm, which bears more resemblance to a white thread than an adult worm.

designed bins that allow easy harvest of their castings. Worms don't have eyes; but, they are sensitive to light. They shy from lighted areas so lights in the cellar are used to keep the worms in the bins.

They also move away from vibration. There are so many worms in each bin that a sharp knock on the side generates movement away from the source. The resulting noise sounds like milk being poured on a bowl of Rice Krispies—on a large scale! The entire surface of the soil moves as the worms wiggle away. The worms produce small mountains of castings rich in nitrogen, phosphorous and potassium.

Equipment

The worm bins are not the only specialized equipment the company uses. Compost turning is accomplished with a 4- by 10-foot turner specially designed for the task. It takes a while to turn the 1,200 foot windrows of compost. Charla handles much of the turning, moving the machines slowly and methodically down each row. Each windrow of compost is turned up to 25 times to ensure complete breakdown of all organic material. Water tanks pulled behind the turner add moisture to fuel the process.

Years ago, Mark first became involved in compost production when he worked as a farm manager for an organic farm. There, he worked with a compost screener built by his brother-in-law. He took that design and refined it to create the compost screener Compost Technologies uses today. "That's the one piece of equipment I am most proud of," he said. "It's a pleasure to run."

Compost Technologies strives to keep on the cutting edge of new technology and techniques. Mark attends education classes, he and Richard read trade publications and they talk to others in the industry to stay on the cutting edge.

Their goal is providing Valley farmers with a sustainable product that will enhance yields and improve soil health. For more information, contact Compost Technologies at 719-588-8950 or 719-754-9092. 🌱

2008 Home & Garden Show

The Home Builders Association of the Upper Rio Grande will hold the 2008 Home & Garden Show at Ski Hi Park in Monte Vista on April 12 from 9:00 to 5:00 and April 13 from 10:00 to 4:00.

Vendors will include builders and developers, nursery and landscaping, home interiors, garden art, and realtors. Experts will be available to answer questions and provide information and advice on state-of-the-art products and services.

Admission is FREE and everyone is welcome. There will food vendors and many give-a-ways.

Well Meter Reminder

***All flow meters installed in accordance with the Ground Water Measurement Rules (05cw012) for Division 3, Rio Grande Basin must be **verified by a certified tester no later than March 1, 2008.**

Failure to comply with the rules subjects the owner/user to fines not to exceed \$500.00 per day plus applicable fees at the discretion of Division III Water Court (Pursuant to section 37-92-503, C.R.S.). For more information please contact:

Division of Water Resources, Division 3
719-589-6683

<http://water.state.co.us/pubs/forms.asp#x>

*All Flow Meters within the scope of the Rules shall be verified by a certified well tester to be in accurate working condition within one year of installation or March 1, 2008, whichever is earlier. The Well Owner shall submit Form 3.1—Notice of Totalizing Flow Meter Verification, Re-Verification, or Replacement to our office. Flow Meters installed prior to September 1, 2005, shall be certified to be in accurate working condition by March 1, 2007.

** Flow Meters shall be properly verified in the field to be in accurate working condition (within 5 percent of actual flow) by either a licensed pump installer, a representative of the meter manufacturer, or certified by a Qualified Well Tester. A variance may be obtained for flow meters verified by a Certified Tester that measure between 5 and 8 percent of actual flow. Requests must be made to our office on Form 3.1—Notice of Totalizing Flow Meter Verification, Re-Verification, or Replacement OR Form 11—Variance Request .

Planning a Spring Burn?

Many Valley residents like to use a little fire in the spring to clean ditches and along fences. Burning can be a great way to control vegetation. It can also be dangerous. Keep these safety tips in mind before you plan a spring burn.

- ✓ Patrol the area to be burned with a shovel in hand before you start. Clear vegetation well away from power poles and wood fence posts.
- ✓ Choose a day with moderate temperatures. Between 40 and 60 °F is ideal.
- ✓ Do not burn if it's windy or gusty. The wind speed should be under 7 mph, and the wind direction should remain steady. In general, the wind is calmer in the morning and evening.
- ✓ Prevent smoke from hindering any roadways by planning your burn when the wind direction is going away from the road. 🌱



Energy Efficiency Motors: A Topic at Ag Conference

Some people assume that it is in the best interest of an electric utility company to sell more power. That's not the case for electric cooperatives. Electric cooperatives don't operate for a profit. Cooperatives, like SLVREC, set rates to cover costs. Along these lines, SLVREC encourages conservation. That helps members save money on their electric bills.

One way the cooperative does that for farmers and ranchers is to offer rebates on the purchase and installation of energy efficient motors. Energy efficiency rebates were a topic of discussion for many who stopped by SLVREC's booth at the Ag Conference in February.

Premium efficiency electric motors are more efficient, so they cost less to run. When you replace a standard electric motor with a premium efficiency motor, you may be eligible for a rebate of up to \$20 per horsepower. That can help put a dent in the cost of buying that new pump or motor. And with a premium efficiency motor, you'll continue to save on your electric bill for the life of the pump.

Call customer service for more information on the energy efficiency motor rebate program. ☞

The Energy Update

Do you like being informed? SLVREC has taken to the airwaves to keep you in the loop on energy issues. Every Tuesday and Thursday at 7:48 a.m., Jim Clare (public information officer) will provide a two minute update on energy issues.

The show airs on KSLV-FM (at 95.3 on your radio). Each week, the show will cover a different topic. Electrical safety, current issues, energy conservation and general news about your cooperative will be covered. Call Jim at SLVREC if you have topics you would like to see included. ☞

Focus Group Meeting

Are you concerned about global warming? Do you wonder what renewable energy will do for you? Do you ever wonder where the Valley's power supply comes from? Do you wonder if the lights will always come on when you flip the switch?

At SLVREC, the board of directors and staff are concerned about all of these topics and more. To help address the energy challenges facing the San Luis Valley, SLVREC created a focus group. The first meeting will be held on March 4 at SLVREC headquarters in Monte Vista. Future meetings will be planned based upon feedback from this meeting. ☞

Current Issues on the Way

SLVREC has created an informational booklet that addresses current issues in the energy industry. The publication will go to press soon. It's goal is to provide straight talk on energy issues.

One of the key issues facing utility companies today is developing new generation sources. Recently, several proposed power generation facilities, like the Holcomb development in Kansas proposed by Tri-State Generation & Transmission (our power provider), have been denied permits. However, in spite of news reports that indicate otherwise, there isn't an inexpensive way to develop new generation—renewable or non-renewable. Because coal plants are coming under fire, generation utilities are looking toward more expensive natural gas facilities.

For the most part, wind generators and solar plants only provide power when the wind blows or the sun shines. Baseload generation from coal and natural gas generation plants provides power at all other times.

Glenn English, CEO of the National Rural Electric Cooperative Association (NRECA), said, "Much of the public and Congress believe that there can be a silver bullet that will suddenly take care of this issue. ... That is not reality. If we are going to reduce carbon emissions in this country in the electric utility industry, there are going to be many solutions, not a single solution. They are going to be difficult solutions and they will take time to implement. And in fact, in many cases, the technology does not exist today for us to do what many would ask us to do."

The *Current Issues* publication will address conservation, renewable energy, net metering and more. Look for a copy this summer. ☞

Potato Pancakes

- 4 slices bacon
- 1 small onion
- ¼ cup lightly-packed parsley (stems removed)
- 1 egg
- 2 Tbsp. all-purpose flour
- 1 tsp. salt
- ¼ tsp. ground pepper
- ⅛ tsp. ground nutmeg
- 4 medium potatoes
- shortening

Cook bacon in a 10-inch skillet till crisp. Reserve bacon drippings. Crumble bacon and place in a mixing bowl.

Finely chop onion and parsley. Place in bowl with bacon and add egg, flour, salt, pepper and nutmeg. Mix well. Peel potatoes and shred. Stir into egg mixture.

Heat 2 Tbsp. of the reserved bacon drippings in skillet. For each pancake, spoon ¼ cup of the potato mixture into hot drippings. Spread slightly to flatten. Cook over medium heat 2 to 3 minutes on each side or until browned. Drain on paper towels. Add additional bacon drippings or shortening as needed to keep pancakes from sticking.

Banana Cream Pancakes

- 3 cups buttermilk
- 2 eggs, separated
- 2 cups all-purpose flour
- 2 Tbsp. sugar
- 1 tsp. baking powder
- 1 tsp. baking soda
- 1 tsp. salt
- 1 banana, sliced
- Butter as needed to cook pancakes

Whisk buttermilk and egg yolks in large bowl. In a separate bowl, stir together flour, sugar, baking powder, baking soda and salt. Gradually whisk flour mixture into buttermilk mixture. Beat egg whites until stiff and gently

fold into batter.

Melt 2 tablespoons of butter. Working in batches, drop batter by half cup fulls into skillet. Place 8 banana slices on each pancake and cook until they are light golden, about 3 minutes per side. Transfer pancakes to baking sheet, keep warm in oven. Top pancakes with maple syrup.

Butterscotch Sticky Buns

- ½ cup chopped pecans
- 2 pkg. refrigerated biscuits
- 1 Tbsp. sugar
- 1 tsp. cinnamon
- 1 6-oz. pkg. butterscotch chips
- ⅓ cup evaporated milk
- ½ stick melted butter

Grease 9-inch cake pan. Sprinkle pecans in bottom of pan. In a small bowl, mix sugar and cinnamon.

Separate biscuits, dip in butter and then in cinnamon-sugar mixture. Arrange biscuits in pan, overlapping. Bake at 400 °F for 30 to 35 minutes. After 15 minutes, lay a piece of foil over the top to keep the biscuits from getting too brown.

While baking, melt chips with evaporated milk, stirring constantly. Pour mixture over baked biscuits and let set for 5 minutes. Turn out on a plate.

Almond Coffee Cake

- 2 cups sugar
- ½ cup butter
- 4 eggs
- 2 cups flour
- 2 tsp. baking powder
- dash of salt
- 1 tsp. vanilla
- 1 tsp. almond extract

Center and topping

- 1 cup sugar
- 2 tsp. cinnamon
- 1 cup slivered almonds

Cream 2 cups sugar and butter

together. Add eggs, one at a time, beating well after each addition. Stir in vanilla and almond extract.

Sift flour, baking powder, and salt together. Stir into the egg mixture. Pour half of the batter into a greased 9- by 13-inch pan. Sprinkle with half of the topping mix. Add remaining dough, smooth. Top with remaining topping.

Bake at 350 °F for 45 to 55 minutes or until brown. The sides will pull slightly away from the pan when done.

Pecan Muffins

- 3 eggs
- 1 ½ cups brown sugar
- ¾ cup sifted flour
- ¾ tsp. baking powder
- ½ tsp. salt

1 cup chopped pecans
Beat eggs slightly and add brown sugar. Sift dry ingredients together in a separate bowl. Add to egg and sugar. Stir until just mixed. Fold in pecans.

Pour into greased or lined muffin tins and bake at 425 °F for 20 to 25 minutes. Makes 18 muffins.

Apple Fritters

- 6 tart apples
- 2 cups flour
- 1 cup beer (to help make dough rise)
- dash of salt

Measure flour and salt into bowl. Add beer slowly and stir until it becomes a smooth paste. Peel apples and core centers. Slice into rings about ¼-inch thick.

Pull rings through batter and fry in ¾ cup hot oil. Turn when brown and puffed. If desired, sprinkle with powdered sugar. Best served warm.

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What's for Breakfast?

Call 811 Before You Dig



Call 811 first! This one-call service will notify the appropriate utilities to send locators to the requested site to mark underground lines for free. Location marking for underground utilities helps homeowners and professional excavators to stay clear of hidden dangers while digging.

Conservation Corner

Want to save money on your electric bill? Try these energy-saving ideas!

- * Turn the lights off whenever you leave a room; even the fluorescent ones.
- * Put in compact fluorescent bulbs.
- * Have your outdoor area light removed and replace it with motion-sensing lights installed on buildings.
- * Let your dishes air-dry. Don't run your dishwasher drying cycle.
- * Decide what you want before you open the refrigerator door. According to some estimates, every time you open a refrigerator door, it costs about 25 cents in energy costs.
- * Plug the components of your entertainment center into a power strip; turn the power strip off when you are not using your home electronics.
- * Turn your computer off at night...do not put it in the sleep mode.
- * Put in a programmable thermostat and set your temperature for a comfortable setting.
- * Keep windows and doors closed, and only open them when you have to.
- * During the summer months, close your blinds and/or curtains during the day and open them at night. In the winter, do the opposite.
- * Only wash full loads of laundry and dishes! It takes just as much energy to run the machine with a half-load as it does a full-load.
- * Lower the temperature of your hot water heater to 120 °F to 125 °F.
- * If you are shopping for new appliances, be sure to check out Energy Star products. They have been designed to meet energy-efficiency guidelines.