The Rio Arriba Cooperative Extension Service staff would like to extend a warm and heartfelt wish to all for a happy, healthy, Holiday Season and a healthy, safe and prosperous New Year to come!!

We have enjoyed serving the residents of Rio Arriba County and the State of New Mexico. As always, please let us know what we can do to serve you throughout the upcoming year.

Don't forget our areas of responsibilities fall in Agriculture, 4-H and Youth Development, Family and Consumer Sciences and Community Development.

Thank you again for the pleasure and opportunity to serve you.

The Rio Arriba Cooperative Extension Service staff would like to extend a warm and heartfelt wish to all for a happy, healthy, Holiday Season and a healthy, safe and prosperous New Year to come!!

We have enjoyed serving the residents of Rio Arriba County and the State of New Mexico. As always, please let us know what we can do to serve you throughout the upcoming year.

Don't forget our areas of responsibilities fall in Agriculture, 4-H and Youth Development, Family and Consumer Sciences and Community Development.

Thank you again for the pleasure and opportunity to serve you.
Since the beginning of agriculture, successful farming has meant the extraction of minerals from soil as plants grow. A relatively small world population and a vast agricultural frontier made this seem a problem of minor consideration and until relatively recently, Planet Earth seemed infinite!

Plants may look the same, but some depleted agricultural soils may lack important minerals.

However, today many health professionals agree that even human health relates to the minerals present or, lacking in the soil. Depleted soils can exacerbate metabolic diseases that may unlock an array of health consequences. This approach shows us that an imbalanced equation, with foods grown in poor-quality soils, cannot produce positive results in living organisms.

Minerals and other micronutrients become available in the soil very slowly. It takes millions of years for rocks to break down, generations of animal carcasses to decompose and return their constituent elements to the soil. But what takes millions of years can be depleted in a geologically relative instant. This happens because crops and animals that grow every year in our farmlands, draw upon the minerals for their growth (present in carcasses and grains), and these “withdrawals” are rarely re-deposited. In the last 150 years, the rate of extraction of soil minerals, from crops to livestock, has been far greater than what has been put back in. To complicate this scenario even more, most agricultural soils are back on production shortly after a new season starts, extracting yet more nutrients from an already depleted system.

It’s true that soil amendments are frequently applied by many farmers. But when amended, soils usually receive tiny, effectively homeopathic amounts, and these are frequently in the form of synthetic fertilizers or raw manure, compared to the considerably large quantities removed. These applications mainly replenish macronutrients (nitrogen, phosphorus, and potassium) and are usually catered to a given crop. This is far from enough. Micronutrients such as, calcium, iron, magnesium, boron, zinc, etc., are as important or more for diverse life functions, (included human health), but they are usually the first to be neglected.

Ideally, minerals should be processed -ingested and digested- by soil microorganisms (e.g. bacteria, fungi, nematodes and earthworms), and aggregated into organic matter before they can be healthily absorbed through the food chain. Most soils contain micronutrients, but they are considered healthy, when living organisms are present. All these creatures need water to mobilize minerals, and water is more successfully held in soils that remain covered.

What can farmers’ do to promote a healthy cycle on their farm:

- Perform a soil test, consult with a soil professional and see what is missing.
- Avoid practices that disturb the soil. Revolved soils burn organic matter, hold less water and become inhospitable for soil life.
- Retire the plow. Paint it, make a decoration reminding us of the times when we did not understand how aggressive this tool was.
- Use minimum or, no-till practices; they will preserve, soil structure and function.
- Use composted manure or any reliable compost.
- Amend compost piles manually, by sprinkling micro minerals -to the pile or row-, before turning. This can be easily done as the pile grows and it will avoid operation costs of spreading them separated. When composted, spread it in the field.
- Adopt grazing, no-till cropping and fallow periods, in adequate sequence.
- Rotating high-stock density grazing animals for short periods is among the most efficient and effective way to incorporate nutrients back overtime. Grazing animals can do most of the work themselves but, they won’t open the gates.
- Organic matter will buffer and catalyze mineral absorption. In the end, a living soil plays an essential role, enabling important ecosystem processes and functions such as, creating structure, binding the soil together, helping mobilize minerals and producing benefits from nutrition, yields and pleasant landscapes.
At the beginning of 2013, cattle ranchers in the Northern Plains were among U.S. agricultural producers still feeling the lingering effects of the sweltering 2012 drought, the worst in half a century.

Beef cow numbers were at the lowest in 50 years as U.S. beef producers—severely affected by extended drought—tried to recover from some of the driest months on record. Across the Northern and Southern Plains, beef producers hit the hardest by drought are threatened by limited forage resources for cows, which restricts calf growth, resulting in lighter calf weaning weights. In addition, drought can decrease cow body weight and condition and weaken immune functions that may affect overall health and reproductive performance.

For decades, scientists at the Agricultural Research Service’s Fort Keogh Livestock and Range Research Laboratory (LARRL) in Miles City, Montana, have studied management options that minimize the effects of severe drought on rangeland livestock production. Recently, LARRL animal scientists Richard Waterman, a rangeland nutritionist, and Thomas Geary, a reproductive physiologist, teamed with local ranchers and collaborators at Montana State University (MSU) and the American Simmental Association in Bozeman, Montana, to evaluate early weaning of beef calves and its impact on cow, heifer, and steer performance.

“When a calf is weaned early, all nutrients that normally go to milk production for the calf can be retained by the mother—helping to increase or sustain her body weight and condition,” Waterman says. “And proper handling of early-weaned calves can result in greater weight gain than if they had remained with their mothers, especially during drought.”

Tallying the Benefits

Scientists confirmed that weaning a calf earlier than normal potentially offers a beneficial production alternative for beef producers when forage is limited. “With the calf removed, the cow needs less forage to address her needs, which is especially important during drought,” Waterman says.

“Another issue with drought is the inability to grow enough summer and winter forage for cattle,” says rancher and collaborator Dean Peterson, who volunteered his cow/calf herd in Judith Gap, Montana, for the project. “We used to run 500 cows, but now we run 400, because it’s about maximizing the efficiency of the forage. We suffered an initial loss of income, but we’re doing a better job at taking care of the land and cattle, and our operation is sustainable for the long term.”

Research was conducted using calves from both Judith Gap and LARRL. Some calves were weaned early, at 80 days of age, while others were weaned at the more traditional age of 215 days. Cows that weaned a calf early weighed more and were in better body condition at the start of winter. Consequently, the amount of harvested feedstuffs required for cows to maintain satisfactory body weights and condition throughout winter was reduced.

“We learned a lot,” Peterson says. “The research confirmed that early weaning is profitable. If you wean calves early, you have fewer problems and can better control the production environment.”

Early weaning during severe droughts will reduce economic losses that would occur when selling lightweight calves,” Waterman says. “In order to achieve an economic benefit, a 20-percent increase in reproductive performance in the cow herd would need to be realized, because early-weaned calves must go on feed much sooner.”

Outcomes of the research also demonstrated that early weaning increases the probability of heifers becoming pregnant on time in the following breeding season, Waterman says.

The nice response was in body weight, especially with those 2-year-olds nursing for the first time,” he says. “It takes a cow 5 years to reach her mature body weight. When young cows have their calves removed early, the demands of lactation cease—allowing the cow to focus her resources on body condition and growth. If a cow goes into winter in better condition, maintains that condition, and calves with better condition the next year, she will be more likely to remain in the herd until maturity.

The objective is to preserve body condition of the cow at a time when forages are limited, says John Paterson, a former MSU animal science professor and Extension Service beef cattle specialist. “We don’t want cows to get thin or pull body condition down, because they’re lactating, which requires a lot of feed. The way you save that feed is to stop lactation by getting the calf weaned earlier.”

Steering in the Right Direction

Additional findings showed that early-weaned steers reached maturity sooner than traditionally weaned steers when weight gain, feedlot performance, and carcass traits were measured. Steers had a higher rate of growth between the time of early weaning and the time of normal weaning.

Early-weaned steers typically had poorer USDA yield grades, revealing the importance of identifying them before they enter the feedlot, Waterman says. While producers who market cattle using a quality grid will benefit from having a higher quality carcass going into market, research indicates that management of early-weaned calves can directly affect how they are graded at harvest.

“Carcasses of early-weaned steers may be too fat and receive less-desirable USDA yield grades compared to those of traditionally weaned calves of similar genetics and age when harvested together,” Waterman says. “If early-weaned steers are identified before entering the feedlot and harvested at an earlier age, producers have the opportunity to market them at more desirable yield grades with increased quality premiums for those carcasses.”

Scientists confirmed this strategy by using ultrasound to measure carcass characteristics. Early-weaned steers were then harvested at a younger age than traditionally weaned animals to maximize their carcass value.
**THE MULTIVITAMIN MAZE**

Submitted By: Desaree Jimenez, RA County Home Economist
Source: Adapted from New Mexico State University, Department of Extension Family and Consumer Sciences Quarterly Newsletter, October 2014

For millions of Americans, popping a vitamin and mineral supplement every morning has become as routine as drinking a glass of orange juice. Most of the public views this as a safeguard against health problems and getting the right amount of vitamins in a day. In 2013, the Centers for Disease Control and Prevention found that 60% of American adults take dietary supplements, including multivitamin and mineral formulas. But what do we really know about what is in the bottle?

**PEERING INSIDE THE BOTTLE**

Some multivitamins formulas are on overdrive. It may benefit people to flip the bottle over and read the facts, making sure that it doesn’t exceed 100% of the Daily Value (DV) for any nutrient. The DV is the amount of a vitamin or nutrient that is recommended for optimum health from a 2,000 calorie-a-day diet. The number can help people understand how foods and supplements contribute to the total diet. The DVs are set high to cover the needs of 97% to 98% of the U.S. population with a margin for safety.

<table>
<thead>
<tr>
<th>NUTRIENT</th>
<th>DAILY VALUE (DV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamin A</td>
<td>5000 IU</td>
</tr>
<tr>
<td>Vitamin C</td>
<td>60 mg</td>
</tr>
<tr>
<td>Vitamin D</td>
<td>400 IU</td>
</tr>
<tr>
<td>Vitamin E</td>
<td>30 IU</td>
</tr>
<tr>
<td>Vitamin K</td>
<td>80 mcg</td>
</tr>
<tr>
<td>Thiamin (vitamin B1)</td>
<td>1.5 mg</td>
</tr>
<tr>
<td>Riboflavin (vitamin B2)</td>
<td>1.7 mg</td>
</tr>
<tr>
<td>Niacin (vitamin B3)</td>
<td>20 mg</td>
</tr>
<tr>
<td>Vitamin B6</td>
<td>2 mg</td>
</tr>
<tr>
<td>Folic Acid</td>
<td>400 mcg</td>
</tr>
<tr>
<td>Vitamin B12</td>
<td>6 mcg</td>
</tr>
<tr>
<td>Biotin</td>
<td>300 mcg</td>
</tr>
<tr>
<td>Pantothenic Acid</td>
<td>10 mg</td>
</tr>
<tr>
<td>Calcium</td>
<td>1,000 mg</td>
</tr>
<tr>
<td>Iron</td>
<td>18 mg</td>
</tr>
<tr>
<td>Phosphorus</td>
<td>1,000 mg</td>
</tr>
<tr>
<td>Magnesium</td>
<td>400 mg</td>
</tr>
<tr>
<td>Zinc</td>
<td>15 mcg</td>
</tr>
<tr>
<td>Copper</td>
<td>2 mg</td>
</tr>
<tr>
<td>Selenium</td>
<td>70 mcg</td>
</tr>
<tr>
<td>Chromium</td>
<td>120 mcg</td>
</tr>
<tr>
<td>Iodine</td>
<td>150 mcg</td>
</tr>
<tr>
<td>Manganese</td>
<td>2 mg</td>
</tr>
<tr>
<td>Molybdenum</td>
<td>75 mcg</td>
</tr>
<tr>
<td>Chloride</td>
<td>3400 mg</td>
</tr>
<tr>
<td>Potassium</td>
<td>3,500 mg</td>
</tr>
</tbody>
</table>

**WHAT DOES RESEARCH REPORT?**

It is important to note that the science of vitamin supplementation and health risk is full of inconsistencies. Some studies have shown health-protective effects while others have demonstrated risks. These negative findings do not mean that vitamins are not good for the body. We know that the human body requires a variety of micronutrients – from vitamin A to zinc – to maintain normal function. What is not fully understood is how supplemental forms of micronutrients work in the body.
THE MULTIVITAMIN MAZE CONTINUED

WHO SHOULD TAKE VITAMIN AND MINERAL SUPPLEMENTS?
Many groups and individuals can benefit from vitamin and mineral supplements. Pregnant women, young children, senior citizens and individuals with compromised nutritional intake can benefit from supplementation. We know that many people in the United States do not make the right choices to meet their micronutrient needs. Surveys consistently show that people fall short on dairy, fruit, vegetable and whole grain intake. So what is the answer?

BUYER BEWARE
In a world that finds vitamins and minerals stirred into everything from water to candy, it is important for people to consider the supplemental intake of micronutrients they are consuming – particularly for folic acid. Some studies have indicated that too much folic acid may increase the risk for certain cancers. It is easy to exceed your day’s worth of folic acid in fortified foods.

HOW DO I CHOOSE ONE THAT IS RIGHT FOR ME?
There are many types of multivitamin supplements on the market, so if you decide to add one to your healthy living plan, which one do you choose? There are many “gimmicky” multivitamin supplements that claim to be designed to relieve stress, to be of high potency, or to be better for you because they are more “natural”.

POINTS TO CONSIDER:
• Special formulas geared toward women, older adults or the stressed-out are many times nothing more than marketing ploys. For women of child-bearing age the folic acid content is important. For older adults the important issues are vitamin A content that is no more than 100% of the Daily Value and no added iron. Claims for special “stress relieving” or “energizing” vitamins are largely unsubstantiated and are not worth the extra money.
• “Natural” supplements are usually higher priced than synthetic versions, but they are chemically identical, with the exception of vitamin E. In fact, some vitamins labeled “natural” are actually synthetics with small amounts of plant extracts added. There is no need to pay extra just because the label says “natural”.
• Cheap or generic brands of multivitamin supplements are just as effective as more expensive name brands. The vitamins are many times the same chemical composition no matter the price.
• Many multivitamins are fortified with substances that have no recommended daily allowance and no proven health benefit. Examples are algae, bee pollen, etc. There is no need to pay extra for these substances.

MULTIVITAMINS AND SUPPLEMENTS SHOULD BE HANDLED LIKE OTHER MEDICATIONS IN YOUR HOME. BE SURE TO FOLLOW THESE PRECAUTIONS:
• Keep multivitamin supplements that are designed for adults away from children as the doses are designed for adults and can be toxic.
• If you choose children’s vitamins, beware of chewable tablets like vitamin C as they can erode tooth enamel. If these supplements are used, have the child immediately rinse their mouth.
• Make sure that children know that vitamin supplements are not candy and keep the supplements out of their reach.

The most important lesson to remember is foods first, pills second. Our diets should focus on whole food sources of micronutrients. We do not know enough about how supplements can protect from or trigger disease, but there is no controversy over the benefits of eating a diet rich in nutrients from whole foods. Fruits, vegetables, whole grains, nuts, and seeds contain a wonderful variety of vitamins, minerals, phytochemicals, and fiber that seem to work together to protect against disease.
HOLIDAY GIFT IDEAS FOR PEOPLE WITH DIABETES

Submitted By: Desaree Jimenez, RA County Home Economist
Source: Adapted from New Mexico State University, Department of Extension Family and Consumer Sciences Quarterly Newsletter, October 2014

With the holidays coming up, many people are looking for gifts to give their friends and loved ones. Shopping for someone with diabetes is not necessarily different than shopping for others, but sometimes it can make it more difficult to select the perfect present. Consider what the person you are shopping for likes, already has, and wants or would appreciate. Some people prefer not to receive gifts that remind them of their diabetes, while others are grateful for gifts that make it easier to live healthy. Here are some ideas to consider:

What do they eat? Avoid diabetic gift baskets that advertise sugar-free foods. That does not mean they are healthy for those with diabetes. Baskets or food of the month clubs that feature vegetables and fruits, nuts, cheeses, popcorn, tea, and/or coffee are better choices. If the person likes to cook or wants to do more home cooking, there are many items that naturally encourage healthier meals and snacks. Grills or grooved pans, slow cookers, pressure cookers, non-stick cookware, digital food scales, hot air poppers, and diabetes cookbooks are just a few. There are lots of fun kitchen gadgets available for all budgets. Herbs and spices also make a nice gift for those who enjoy exploring flavors and are trying to use less salt.

What physical activities do they like? Fitness comes in a variety of options. While a gym membership may work for some, others might prefer memberships or gift certificates for dancing, yoga, swimming, Zumba, or other group classes. Many people walk for exercise and might find a pedometer helpful. A bicycle can encourage physical activity plus provide transportation. For those who want to get in shape but do not know where to start, consider buying them sessions with a personal trainer who can help them develop an individualized plan that works for them.

What helps them relax? People with diabetes and other chronic diseases often feel burdened with stress and need relaxation. A gift certificate for a massage or facial or with hand and body creams or a foot care basket. They may enjoy scented candles, a diabetes magazine subscription, music (including an iPod or other player), or an evening out. Those who enjoy traveling may like a contribution toward a trip or a travel pouch for their insulin. People who feel stress about driving on unfamiliar streets may appreciate a GPS navigation device.

What else might they need? People with diabetes may need specific items to help maintain good health, and they are sometimes expensive. You may be able to help purchase a blood glucose meter, test strips, or medications. A good health book may be handy as a reference in their home. Some may benefit from a menu planner. Most could use visits with a Certified Diabetes Educator, and many feel more comfortable having a cell phone that they can use to contact others as needed.

Are there any more ideas? Of course! Depending on the preferences of the individual, you may consider a religious gift, a framed motivational poster, or a donation in their name to their favorite charity.

Also browse the American Diabetes Association store at www.shopdiabetes.org for cookbooks, other diabetes books, holiday cards and décor, jewelry, kitchen and entertaining items, tools and gadgets, bags, accessories, travel gifts and more. Purchases help support the Stop Diabetes efforts.

Many of these ideas came from Diabetic Lifestyle, Diabetes Forecast, and the American Diabetes Association.
THE 2014 - 2015 4-H PROGRAM YEAR IS HERE!
Rio Arriba County 4-H Enrollment Began October 1

For More Information Regarding Your Local 4-H Club,
Please Contact the Rio Arriba County Extension Service
in Abiquiu at (505) 685-4523
or in Tierra Amarilla at (575) 588-7423.

COUNTY MEMBER RE-ENROLLMENT DEADLINE
First Monday of January

COUNTY NEW MEMBER ENROLLMENT DEADLINE
First Monday of March

The 4-H Youth Development Program is a Dynamic Education Program

The 4-H youth development program is a dynamic non-formal education program. 4-H provides opportunities to learn life skills, gain knowledge while having fun, and make contributions in such areas as environmental education, community service, and current youth issues. The 4-H program is dedicated to providing opportunities for young people to develop leadership and management skills, positive self-esteem, effective communication skills, a solid sense of personal responsibility and the ability to make sound decisions. The life-skills learned in 4-H enable youth to become productive, well-informed, self-reliant responsible adults.

4-H Offers Youth:
- Membership in positive peer groups
- Year-round community clubs
- Special-interest and short-term groups
- School enrichment programs
- Leadership experiences
- Events, camps, and activities

4-H Offers Adults:
Adults of all ages who want to share their knowledge and talents with young people through a quality youth development program. Adults and youth spend time together, learning new skills, developing hidden talents, making new friends, and having fun. Flexibility to fit your interests.
Dipped Red Velvet Cookies

Yield:
Approximately 29 cookies

Cookies:
- 1 cup butter, softened
- 1 cup sugar
- 1 large egg
- 2 cups all-purpose flour
- 3 tablespoons natural unsweetened cocoa powder
- ½ teaspoon salt
- ¼ teaspoon baking soda
- 1 tablespoon red food coloring
- 2 teaspoons distilled white vinegar
- 2 teaspoons whole milk
- ½ teaspoon vanilla extract

Glaze:
- 2 cups confectioners’ sugar
- 4 teaspoons sour cream
- 2 to 3 tablespoons whole milk

Garnish: Red Sanding Sugar

Preheat oven to 375 degrees. Line a large baking sheet with parchment paper. Set aside.

For Cookies:
In a large bowl, beat butter and sugar at medium speed with an electric mixer until fluffy, 3 to 4 minutes, stopping occasionally to scrape sides of bowl. Add egg; beat until combined.

In a medium bowl, whisk together flour, cocoa, salt, and baking soda. With mixer on low speed, add flour mixture to egg mixture, beating until combined. Beat in food coloring, vinegar, milk, and vanilla.

Using a tablespoon or a 1-inch spring-loaded scoop, scoop dough, scraping on edge of bowl to level. Drop dough onto prepared pan, spacing 1 inch apart.

Bake until puffed and almost set, 10 to 12 minutes. Let cool on pans 5 minutes. Remove from pans, and let cool completely on wire racks.

For Glaze:
In a medium bowl, whisk together confectioners’ sugar, sour cream, and 2 tablespoons milk, adding remaining 1 tablespoon milk, if necessary. Line baking sheets with parchment paper. Dip half of each cookie in glaze, gently scraping excess on edge of bowl. Place cookies, flat sides down, on prepared pans; sprinkle glazed side with sanding sugar. Let stand until glaze is set, approximately 2 hours. Store in an airtight container up to 3 days.
Holiday Extravaganza

Make & Take Gift Event

**When:** Friday December 5, 2014
3:30 to 6:30 pm

**Where:** San Pedro Community Center
Middle San Pedro Rd, Espanola NM

**How Much:** $10.00 Participation Fee

The $10.00 participation fee covers the cost of all materials, refreshments, and a booklet of all crafts and recipes to take home!

Come and get a head start on your Holiday gift giving by creating some **fabulous** take-home Holiday Gifts!

Program is provided by Bernalillo, Cibola, Sandoval, Torrance, McKinley, Rio Arriba, and Valencia County Extension Offices.

**RSVP by Monday, December 3, 2014**
By calling the Rio Arriba County Cooperative Extension Office
(505) 685-4523
The mission of the Cooperative Extension Service (CES) is to provide the people of New Mexico with practical, research-based knowledge and programs to improve their quality of life. The base programs of the Cooperative Extension Service are agriculture and natural resources, consumer and family issues, youth development, and community economic development.

The Cooperative Extension Service is the community education arm of New Mexico State University (NMSU). CES faculty members are attached to all 33 county governments and many tribal areas in New Mexico. Backed by state, federal and local funding and statewide faculty specialists, the Cooperative Extension Service is a cooperative effort between NMSU, the U.S. Department of Agriculture, and county governments.

New Mexico State University is an equal opportunity/affirmative action employer and educator.
NMSU and the U.S. Department of Agriculture cooperating.