July 29th through August 2, 2015
Rural Events Center
Abiquiu, NM
Fair Information:
(505) 685-4523

2015 Rio Arriba County Fair Show Schedule
Fair activity schedule will be available one week prior to opening day. Fair grounds close at half an hour after last fair event.

July 13 – July 17
10:00 am
 Mandatory pre-registration
1:00 pm
 Pre-registration Forms Accepted
3:00 pm
4:00 pm
5:00 pm
6:00 pm
7:00 pm
8:00 pm
9:00 pm
11:00 pm

July 20
1:00 pm
7:00 pm

July 20 - 22
8:00 am - 5:00 pm
12:00 noon - 9:00 pm

July 24
8:00 am - 5:00 pm
12:00 noon - 9:00 pm

Monday – July 27
10:00 am - 3:30 pm

Wednesday – July 29
7:30 am – 10:00 am
1:00 pm
3:00 pm
5:00 pm
7:30 pm
9:00 pm

Thursday – July 30
8:00 am - 6:00 pm
6:00 pm - 8:00 pm

Friday – July 31
8:00 am - 3:00 pm
10:00 am
11:00 am
12:00 noon
1:00 pm
2:00 pm
3:00 pm
4:00 pm
5:00 pm
6:00 pm
7:00 pm
8:00 pm
9:00 pm
10:00 pm

Saturday August 1
8:00 am - 3:00 pm
10:00 am
11:00 am
12:00 noon
1:00 pm
2:00 pm
3:00 pm
4:00 pm
5:00 pm
6:00 pm
7:00 pm
8:00 pm
9:00 pm
10:00 pm
11:00 pm

Sunday August 2
7:00 am - 10:30 am
9:00 am
11:00 am
12:00 noon
1:00 pm
2:00 pm
3:00 pm
4:00 pm
5:00 pm
6:00 pm
7:00 pm
8:00 pm
9:00 pm
10:00 pm
11:00 pm

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Mission Statement

New Mexico State University is an equal opportunity/affirmative action employer and educator. NMSU and the U.S. Department of Agriculture cooperating.
Rio Arriba County continues the tradition of celebrating our western culture and heritage with the annual Rio Arriba County Fair. Last year’s event was a milestone event that raised the bar for our county fair and served as a tribute to our community and agricultural heritage. This year’s fair presents the best of the best of local fair competitors.

I would like to extend a warm welcome to all of our fair visitor’s, and to invite the whole community to spend time enjoying the fair this year. We have expanded a number of activities for all ages, and an incredible line up of events and entertainment. The Rio Arriba County Fair Association (RACFA), Rio Arriba Corporative Extension, 4-H youth, Future Farmers of America, families, community volunteer’s and county staff have all worked hard in preparation of this county wide event, and we are happy to showcase the fair and fairground facilities to our residents and visitors.

The success of the Rio Arriba County Fair is due to the work ethic and commitment of our agricultural community and the countless volunteer hours. We thank the 2015 Rio Arriba County Fair Association, The County of Rio Arriba, and the Rio Arriba Corporative Extension staff for planning this year’s event. Our wonderful volunteers and sponsors have made this event happen for years. And once again they are back to celebrate another season of life and agricultural excellence.

As your chairman of the RACFA I look forward to the fair and invite you to join us in celebrating our western heritage and way of life!

Sincerely,

Travis Law

RACFA Chairman

http://www.racfa.net/contact-us/
E-mail: rioarribacountyfairassociation@yahoo.com
Food Preservation Classes!

For more information or to make requests for a specific class please contact the Rio Arriba County Extension Service at (505) 685-4523 or (575) 588-7423.

10 Tips for Becoming More Active as a Family

Physical activity is important for children and adults of all ages. Being active as a family can benefit everyone. Adults need 2½ hours a week of physical activity, and children need 60 minutes a day. Follow these tips to add more activity to your family’s busy schedule.

1. Set Specific Activity Times
   Determine time slots throughout the week when the whole family is available. Devote a few of these times to physical activity. Try doing something active after dinner or begin the weekend with a Saturday morning walk.

2. Plan Ahead and Track Your Progress
   Write your activity plans on a family calendar. Let the kids help in planning the activities. Allow them to check it off after completing each activity.

3. Include Work Around the House
   Involve the kids in yard work and other active chores around the house. Have them help you with raking, weeding, planting, or vacuuming.

4. Use What Is Available
   Plan activities that require little or no equipment or facilities. Examples include walking, jogging, jumping rope, playing tag, and dancing. Find out what programs your community recreation center offers for free or minimal charge.

5. Build New Skills
   Enroll the kids in classes they might enjoy such as gymnastics, dance, or tennis. Help them practice. This will keep things fun and interesting, and introduce new skills.

6. Plan for All Weather Conditions
   Choose some activities that do not depend on the weather conditions. Try mall walking, indoor swimming, or active video games. Enjoy outdoor activities as a bonus whenever the weather is nice.

7. Turn Off the TV
   Set a rule that no one can spend longer than 2 hours per day playing video games, watching TV, and using the computer (except for school work). Instead of a TV show, play an active family game, dance to favorite music, or go for a walk.

8. Start Small
   Begin by introducing one new family activity and add more when you feel everyone is ready. Take the dog for a longer walk, play another ball game, or go to an additional exercise class.

9. Include Other Families
   Invite others to join your family activities. This is a great way for you and your kids to spend time with friends while being physically active. Plan parties with active games such as bowling or an obstacle course, sign up for family programs at the YMCA, or join a recreational club.

10. Treat the Family with Fun Physical Activity
    When it is time to celebrate as a family, do something active as a reward. Plan a trip to the zoo, park, or lake to treat the family.
June is National Fresh Fruit and Vegetable Month. Fruits and veggies are an important part of healthy eating. Most are naturally fat-free and packed with fiber, vitamins, minerals, and other nutrients, with the added benefit of a small amount of calories. They can help satisfy hunger and manage body weight and may reduce the risk of cancer and other chronic diseases. The amount of fruits and veggies that each person should eat varies some, but most adults should eat 1½-2 cups of fruit and at least 2-3 cups of vegetables every day. Keep in mind that ½ cup of dried fruit should be considered 1 cup of fruit. 2 cups of raw leafy greens should be considered 1 cup of vegetables.

Fruits and starchy vegetables are high in carbohydrates, so some people with diabetes think they should avoid them. Actually, people with diabetes are usually encouraged to eat 3-4 servings of carbohydrate at each meal, balanced with low-carbohydrate vegetables, lean proteins, and healthy fats. Fifteen grams of carbohydrate equal one carbohydrate serving. Fruits and starchy vegetables are excellent choices for those carbohydrate servings. Beans and other legumes, whole grains, and low/nonfat milk and yogurt are also healthy options.

Fresh, canned, or frozen fruits and vegetables all count toward your daily servings. However, some canned and frozen fruits and vegetables contain extra sugar, salt, or other ingredients that make them less healthy. When you buy fresh fruit that is in season, you are more likely to get the best nutrition and taste for your money. Fresh fruits and vegetables should be eaten within a few days of buying them. Wash them under cool running water right before eating or preparing them.

Many resources are available through the Rio Arriba Cooperative Extension Service office to help you select, store, and use your fruits and vegetables. Folks may want to browse the University of Nebraska—Lincoln (UNL) Extension website food.unl.edu. Fruit and vegetable buying guides, tips for storing fresh fruits and vegetables for best flavor, recipes, and more resources are available on the food.unl.edu/fnh/june#fresh page of their website. One storage tip is “pink tomatoes ripen to a better taste and red color if they are left at room temperature. In the refrigerator, they do not turn red, and even red tomatoes kept in the refrigerator lose their flavor.”

The Centers for Disease Control and Prevention (CDC) also provide reliable nutrition information. How to Use Fruits and Vegetables to Help Manage Your Weight has helpful suggestions for increasing fruits and vegetables at meals while decreasing calories. At breakfast, try pouring less cereal and adding some cut up fruit. At lunch, substitute lettuce, tomatoes, cucumbers, or onions for some of the meat and cheese in your sandwich. Use a normal or small plate at dinner and fill most of it with vegetables, fruit, and whole grains. Following these tips will allow you to eat a full meal with fewer calories. To view the full description of these and other ideas from the CDC, visit http://www.cdc.gov/healthyweight/healthy_eating/fruits_vegetables.html.
Cyclosporiasis is an intestinal illness caused by the protozoan ( unicellular ) parasite Cyclospora cayetanensis .

Cyclosporiasis can occur at any time of the year, but most of the reported cases and outbreaks in the United States occur during spring and summer months, particularly during May through August. About half of all U.S. cases that are not associated with a known outbreak occur in people with a recent history of travel outside the United States and Canada.

Cyclosporiasis is acquired by eating food or drinking water that is contaminated with human feces. In the United States, cyclosporiasis outbreaks have been reported almost every year since the mid-1990s and have been associated with various types of imported fresh produce.

Symptoms of cyclosporiasis begin an average of seven days after ingestion of sporulated oocysts (eggs), the infective form of the parasite. The most common symptom is watery diarrhea. Other common symptoms include loss of appetite, nausea, abdominal cramps, weight loss, fatigue, and myalgia (muscle pain); vomiting and low-grade fever also may occur.

Cyclospora infection is diagnosed by examining stool. A special test is required to detect the parasite, so health care professionals should specifically request testing for Cyclospora. Patients might need to provide up to three stool samples collected on different days because even people who show symptoms might not shed enough oocysts in their stool to show up in laboratory testing.

Cyclosporiasis is treated with a common antibiotic. If the infection is not treated, symptoms can last for several weeks to a month or more. There is no vaccine for cyclosporiasis. People can lower the risk of getting cyclosporiasis by avoiding food or water that may have been contaminated with feces. Rinsing fresh produce can reduce—but may not eliminate—the chances of getting cyclosporiasis. Treating food or water with chlorine or iodine is unlikely to kill Cyclospora oocysts.

Safe food and water habits are recommended when traveling.
In the competitive world of today's beef industry, producers cannot afford to keep marginally productive cows when they can be replaced by more profitable females. In addition, in the face of high fertilizer prices, many producers are looking at herd reductions. One of the ingredients to selecting the cows to cull is the age of the cow. Determining the age of cows up to 5 yrs. is simple and accurate. Simply put, she has two permanent incisors as a 2 year old, four as a 3 year old, 6 as a 4 year old, and a full mouth of 8 permanent incisors when she is five. After five years determination is not as accurate, but close enough for practical purposes since we don't really care how many years old she actually is as much as we care how efficiently she can graze. As she gets older the teeth wear down to be less blade shaped and more triangular and spaces start to appear between the teeth. The chart below should be helpful in learning to age your cows.

<table>
<thead>
<tr>
<th>Diagram 1. Handy guide to determining the age of cattle by the teeth</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>At birth to 1 month</strong></td>
</tr>
<tr>
<td><strong>2 years</strong></td>
</tr>
<tr>
<td><strong>2 1/2 years</strong></td>
</tr>
<tr>
<td><strong>3 1/2 years</strong></td>
</tr>
<tr>
<td><strong>4 1/2 years</strong></td>
</tr>
<tr>
<td><strong>5 to 6 years</strong></td>
</tr>
<tr>
<td><strong>7 to 10 years</strong></td>
</tr>
<tr>
<td><strong>12 years</strong></td>
</tr>
</tbody>
</table>

**Blueberry Mint Refresher**

Cool down on a hot day with an ice-cold glass of Blueberry Mint Refresher.

Yield: About 1 ½ cups blueberry syrup or 9-10 cups refresher
Prep Time: 10 minutes
Cook Time: 5 minutes
Total Time: 30 minutes (includes cooling time)
Difficulty Rating: Intermediate

Nutritional Highlights: Blueberries are a low-fat food that’s packed with vitamin C, dietary fiber, manganese and antioxidants.

**Ingredients**
- 1 ½ cups blueberries, divided
- 1 cup local honey
- 1 bunch fresh mint, plus extra sprigs
- 1/8 teaspoon salt
- 2 quarts lemon-flavored sparkling water

**Instructions**
1. Place 1 cup blueberries, honey and mint in a medium saucepan. Bring to a simmer and continue to heat for several minutes, stirring constantly until the berries burst. Remove from heat and cool.
2. Gently squeeze berry mixture through cheesecloth-lined sieve into an airtight container (discarding blueberry pulp and mint) to make a blueberry syrup. Chill.
3. Combine ¾ cup syrup with ¾ cup sparkling water for a single serving. Pour over ice. This can also be served in a large pitcher or punch bowl, using the whole recipe with both quarts of sparkling water. Garnish with berries and mint.

Source: http://farmflavor.com

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**Fun Facts**

Adding a pinch of salt to your quart or gallon of milk makes it stay fresh.

Source: http://farmflavor.com

**How many honeybees does it take to produce a tablespoon of honey?**

12 - Twelve busy little bees must collect the nectar from 2,000 flowers to make a tablespoon of honey.

Source: USDA

**How many glasses of milk can one cow produce in a year?**

46,000 - The average cow produces 2,100 pounds of milk a month.

Source: USDA

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AND 4-H SUMMER PROGRAMMING IS OFF AND RUNNING!

Home 4 School

General County Contests

County Shooting Sports Contests

State Shooting Sports Championships

YGA

County Camp Counselors

County Fair Tagging
Following the mission of 4-H, Rio Arriba County 4-Hers have been busy gaining life skills through hands-on activities such as County 4-H Contests. Members were challenged to demonstrate the knowledge they learned from their 4-H projects and participate in various activities showing their critical thinking, problem solving and goal setting skills.

Youth Get Away is a State hosted event for Novice and Junior member. Rio Arriba has participated in the event for the past 2 years.

An extension of the 4-H experience is the Kids & Kows & More event. Kids & Kows lets kids experience the world of agriculture up close. The events are designed to give kids a little taste of all types of agriculture in their area. In collaboration with local schools and educational organizations, we hosted our first event in Abiquiu at the Rural Event Center on Thursday, April 9, 2015. We provided school age children from Abiquiu, El Rito, Ojo Caliente and Velarde areas, a real-life awareness and understanding of our food production system, and how agriculture impacts their lives every day. Students were taught the importance of agriculture through hands-on demonstrations, which is the philosophy behind Kids & Kows & More.

Every June, Rio Arriba County 4-H hosts our annual summer camp. Our camp is known to have a fun but physically challenging atmosphere where 4-H youth members and adult volunteer leaders have the opportunity to learning and explore topics related to community service & development, club goal development, leadership and team building skills. The 3-day, 2-night event allows for youth to participate in hands-on workshops and activities designed to increase life skills related to teamwork, communication, leadership, respect and generosity. This year, we had 48 youth (ages 5-19) and 16 adult volunteers participate in the 2015 Rio Arriba County Camp held at Ghost Ranch in Abiquiu, NM.
AVIAN FLU – HOW IT CAN AFFECT YOUR HEN HOUSE.

Submitted By: Donald Martinez, RA CES Ag. Agent
Adapted from :On pasture

While it’s not a human health concern, the current avian flu is hitting some areas hard. Here’s what’s happening, and what you can do to help your fellow farmers and ranchers to prevent the spread of this disease. By this time, you’re no doubt aware that a “highly pathogenic” avian flu is spreading across North America. “Highly Pathogenic” avian influence means that it spreads rapidly and death rates in birds are high. While this is of extreme concern to those raising poultry for meat and eggs, the good news is that this strain, HPAI H5N2 is not a threat to human health.

In North America, the current strain of avian flu has turned up in flocks in Canada and many places in the United States. It has hit over 100 large scale farms to date, resulting in the deaths of 15.4 million turkeys and laying hens. Iowa has lost about a quarter of its 60 million birds to flu outbreaks, including one farm with 5.5 million layer hens and several turkey farms. That sounds like a lot, and it’s an enormous impact on the folks raising the birds. But to give you some perspective, Iowa Agriculture Secretary Bill Northey said the outbreaks in Iowa translate to 5 to 6% of the total number of laying chickens in the United States.

While it’s not completely clear how this current flu is being spread, wild birds and migratory waterfowl are considered potential sources. Once the flu has arrived in an area, it spreads quickly and easily. It can travel on manure, egg flats, crates, farming materials and equipment, and with people who have unknowingly picked up the virus on their clothes, shoes or hands. When poultry come in contact with contaminated surfaces or materials, they contract the disease and continue its spread. The virus doesn’t do well in the heat, so with summer coming on, the danger should decrease. But USDA officials believe the virus will survive the summer, and we’ll see a rise in outbreaks in the fall.

Given the potential impact on poultry and food production, we all need to know what sick birds look like, do what we can to prevent our birds from getting sick, and then if they do get sick we need to report it immediately so that steps can be taken to prevent further spread. To help you help your fellow farmers and ranchers, here are symptoms, prevention methods, and who to call for help.

AVIAN FLU SYMPTOMS

Birds that have contracted avian flu will show these symptoms:

• Lack of energy and appetite
• Decreased egg production and/or soft-shelled or misshapen eggs
• Swelling of the head, eyelids, comb, wattles, and hocks
• Purple discoloration of the wattles, combs, and legs
• Runny nose, coughing, sneezing
• Stumbling or falling down
• Diarrhea
• Sudden death without any clinical signs

This map comes to us from a website called “Avian Flu Diary.” It was current as of April 21, 2015.
CONTINUED—AVIAN FLU—HOW IT CAN AFFECT YOUR HEN HOUSE.
Submitted By: Donald Martinez, RA CES Ag. Agent
Adapted from: On pasture

PROTECTING YOUR FLOCK
Biosecurity steps are actually pretty straight forward, and they are things you should do all the time, whether or not there’s known threat heading your way. Here’s what the experts recommend:

1. **Keep Your Distance.**
Restrict access to your property and your birds. If visitors have birds of their own, do not let them near your birds. You should also do your best to keep your birds from having contact with wild birds and migratory water fowl that can carry germs and diseases.

2. **Keep it Clean.**
Wash your hands before and after working with your birds. It’s also recommended that you wear clean clothes, scrubbing your shoes with disinfectant, and cleaning and disinfecting equipment that comes in contact with your birds. Clean clothes and disinfected shoes and equipment is something that we all probably balk at.

3. **Don’t haul disease home.**
Buy birds from reputable sources. Then keep new birds separate from your flock for 30 days. If you take your birds to the fair on an exhibition, keep them away from your flock for 2 weeks after the event.

4. **Don’t borrow disease from your neighbors.**
Don’t share garden equipment or poultry supplies with your neighbors or other bird owners. If you have to borrow things, clean and disinfect them before they reach your property.

5. **Know the signs and report sick birds.**
Don’t wait! If your birds are sick or dying, call our extension office, your veterinarian, or NM State Vet (Dr. Ellen Mary Wilson) at (505) 841-6161. You can also call the USDA at 1-866-536-7593 and they can put you in touch with a local contact who can help you.

NATIONAL RESPONSE PLANS
According to the US Department of Agriculture’s Animal and Plant Health Inspection Service, the United States has the strongest AI surveillance program in the world. Federal and State partners and the poultry industry respond quickly to evidence of the disease focusing on:

1) Quarantines – restricting movement of poultry and poultry-moving equipment into and out of the control area;
2) Eradication – affect flocks are humanely euthanized to prevent the spread to other areas;
3) Disinfecting – kills the virus in the affected flock locations;
4) Testing – confirming that the poultry farm is AI virus-free.
5) Monitoring – wild and domestic birds are tested in a broad area around the quarantine area. USDA also is working with its partners to actively look for and test for the disease in commercial poultry operations, live bird markets and in migratory wild bird populations.
Make Jelly, Jam, and Spread at Home
Guide E-314

Reviewed by Nancy C. Flores
Extension Food and Technology Specialist
Cooperative Extension Service • College of Agriculture and Home Economics

FOUR ESSENTIAL INGREDIENTS

Fruit
Fruit gives jams and jellies their characteristic flavor and furnishes at least part of the pectin and acid required for successful gels. Flavorful fruits are best for jellied products, because the fruit flavor is diluted by large proportions of sugar.

Sweeteners
Sugar helps gel formation, serves as a preserving agent, contributes to the flavor of the jellied product, and has a firming effect on fruit. Beet and cane sugar can be used with equal success.
Corn syrup and honey may be used to replace part of the sugar in recipes, but too much will mask the fruit flavor and alter the gel structure. Use tested recipes for replacing sugar with honey and corn syrup. Do not try to reduce the amount of sugar in traditional recipes. Too little sugar prevents gelling and may allow yeasts and molds to grow.
Low-calorie and low-sugar recipes may call for non-nutritive sweeteners, such as saccharin or aspartame. However, jellied products made with nonnutritive sweeteners must either be frozen or refrigerated and used within two or three weeks.

Pectin
Most jellies require added pectin, although some fruits, such as apples, grapes and some berries, have enough natural pectin to make high-quality products. All underripe fruits have more pectin than ripe fruits. Many people prefer the added pectin method for making jams and jellies, because fully ripe fruit and a shorter cooking time can be used.
Commercial fruit pectins made from apples or citrus fruits are available in both liquid and powder forms. The two forms are not interchangeable. Commercial pectins may be used with any fruit.
Fruit pectins should be stored in a cool, dry place to keep their gel strength. Liquid pectin should be refrigerated after opening. Use commercial pectins by the date stamped on the label.

Acid
Acid provides flavor and assists gel formation. Acid content varies among fruits and is higher in underripe fruits. Lemon juice and citric acid are commonly added to low-acid fruits. Some commercial fruit pectins contain acid.

GENERAL CANNING PROCEDURES
Use regular and wide-mouth Mason jars with self-sealing lids held in place by screw-on metal bands. The bands hold the lids in place during the processing and cooling periods.
Mason jars are made from tempered glass to resist high temperatures. Jars are available in 1/2 pint, pint, 1-1/2 pint, and quart sizes. Larger jars are not recommended for home canning.
Inspect jars carefully for cracks or chips and discard faulty ones. Wash jars in hot, soapy water and rinse thoroughly or in the dishwasher. Keep jars hot in the dishwasher, a sink of hot water, or a warm oven until they are filled.
Check metal screw bands for signs of rust or dents. Discard badly corroded or dented bands. Use only new lids and follow the manufacturer’s directions for preparing lids for canning.
Prepare ingredients as described in the following pages. All mixtures should be boiling when heated into clean half-pint or pint canning jars. Leave 1/4 inch of headspace.
Fill jars one at a time. Clean top of jar with a clean, damp cloth or paper towel. Cover with new two-piece canning lids. Tighten screw bands. Place each jar in canner immediately after filling.

Steps for Successful Boiling-Water Canning:
1. Fill the canner halfway with water.
2. Preheat water to 140°F for raw-packed foods and to 180°F for hot-packed foods.
3. Load filled jars, fitted with lids, into the canner rack and use the handles to lower the rack into the water; or fill the canner, one jar at a time, with a jar lifter.
4. If necessary, add more boiling water so the water level is at least 1 inch above jar tops.

To find more resources for your business, home or family, visit the College of Agriculture and Home Economics on the World Wide Web at www.cahe.nmsu.edu

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NMSU and the U.S. Department of Agriculture cooperating.
5. Turn heat to its highest position until water boils vigorously.
6. Set a timer for the minutes required for processing the food.
7. Cover with the canner lid and lower the heat setting to maintain a gentle boil throughout the process.
8. If necessary, add more boiling water to keep the water level above the jars.
9. When jars have been boiled for the recommended time, turn off the heat and remove the canner lid.
10. Using a jar lifter, remove the jars straight up without tipping and place them on a towel, leaving at least 1-inch spaces between the jars during cooling.

Do not touch lid or ring until completely cooled.

Table 1. Processing times

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Pack</th>
<th>Jar size</th>
<th>1,000–6,000</th>
<th>6,000–10,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>All products with or without added pectin</td>
<td>Hot half-pints</td>
<td>10</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Peach-pineapple jam spread</td>
<td>Hot</td>
<td>Half-pints</td>
<td>20</td>
<td>25</td>
</tr>
</tbody>
</table>

Test for Jar Seals

Remove screw bands when jars have cooled and test for vacuum seal by these methods:
- Press the lid center with finger. If the lid springs up when released, it is not sealed.
- Tap the lid with a teaspoon. A sealed jar lid will make a ringing sound.
- Hold the jar at eye level and look across the lid. A sealed jar lid curves down slightly in the center.

Reprocessing Unsealed Jars

Remove lids from unsealed jars and discard. Check sealing surface of jar for tiny nicks or cracks. If jar has defects, discard it and replace with another jar. If not, add new lid and process for the same amount of time within 24 hours. Unsealed jars can be kept in the refrigerator and the food used within three weeks.

Storing Canned Foods

Clean the outsides of sealed, cooled jars. Label with date and contents and store in a cool (50–70°F), dark, dry place away from sun, light or dampness.

Altitude Adjustments

All communities in New Mexico are above sea level, varying from 3,000 to 10,000 feet with differences even within a county. Use table 4 to determine the elevation of your community and then select safe processing times for canning your fruit. The boiling temperature of liquids is lower at higher elevations, therefore food must be processed longer at high altitudes.

**MAKING JELLY WITHOUT ADDED PECTIN**

Use only firm fruits naturally high in pectin, such as apples, grapes and some berries. Select a mixture of 3/4 ripe and 1/4 underripe fruit. One pound of fruit should yield at least 1 cup of clear juice. Do not use commercially canned or frozen fruit juices as the pectin content is too low.

Wash all fruits thoroughly before cooking. Cut firm, larger fruits into small pieces. Include peels and cores as they add pectin to the juice. Crush soft fruits or berries. Put fruit and water (see table 2 for amount of water) in a large saucepan and bring to a boil. Stir until the sugar is dissolved. Boil over high heat, stirring frequently, until the mixture reaches its gelling point.

Table 2. Measures for preparing jellies without added pectin

<table>
<thead>
<tr>
<th>Product</th>
<th>Cups of water to add per pound of fruit</th>
<th>Minutes to simmer before extracting juice</th>
<th>Add to each cup of strained juice</th>
<th>Jelly yield from 4 cups of juice (half-pints)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apples</td>
<td>1</td>
<td>20 to 25</td>
<td>Sugar 3/4, Lemon 1/2 tsp</td>
<td>4 to 5</td>
</tr>
<tr>
<td>Blackberries</td>
<td>0 to 1/4</td>
<td>5 to 10</td>
<td>Sugar 3/4, Lemon 1/2 tsp</td>
<td>7 to 8</td>
</tr>
<tr>
<td>Crab apples</td>
<td>1</td>
<td>20 to 25</td>
<td>Sugar 1, Lemon 1</td>
<td>4 to 5</td>
</tr>
<tr>
<td>Grapes</td>
<td>0 to 1/4</td>
<td>5 to 10</td>
<td>Sugar 3/4, Lemon 1/2 tsp</td>
<td>8 to 9</td>
</tr>
<tr>
<td>Peaches</td>
<td>1/2</td>
<td>15 to 20</td>
<td>Sugar 3/4, Lemon 1/2 tsp</td>
<td>8 to 9</td>
</tr>
</tbody>
</table>

Tests for Doneness

The trick to making jelly without added pectin is knowing when it is thick enough. Use one of the three methods listed below.

**Temperature test.** Before cooking the jelly, measure the temperature of boiling water with a jelly, candy or deep-fat thermometer. Cook the jelly mixture to a temperature 8°F higher than the boiling point of water. At that point, the concentration of sugar should form a satisfactory jelly. For example, if water boils at 203°F at 5,000 feet altitude, cook jelly to 211°F. This is the most dependable test.

**Spoon or sheet test.** Dip a cool metal spoon in the boiling jelly mixture. Raise the spoon one foot above the kettle out of the steam and turn the spoon so the syrup runs off the side. If the syrup forms two drops that flow together and fall off the spoon as a sheet, the jelly is done. Although widely used, this test is not entirely dependable.

**Refrigerator test.** Remove jelly mixture from the heat during this test. Pour a small amount of boiling jelly on a cold plate and place in the freezer for a few minutes. If the mixture gels, it should be done.

When jelly is done, remove from heat and allow to stand about 1 minute. Bubbles will rise to top. Use a large metal spoon to skim foam off the jelly. Fill hot, clean jars one at a time.
time. Complete each seal and screw band and place completed jar in hot water canner before proceeding to next jar.

**MAKING JAMS WITHOUT ADDED PECTIN**

For best flavor, use fully ripened fruit. Wash and rinse all fruits thoroughly before cooking. Do not soak. Remove stems, skins, pits and blossoms. Cut fruit into pieces and crush. Seedly berries may be put through a sieve or food mill. Measure crushed fruit into large saucepan (see table 3 for measures). Add sugar and bring to a boil while stirring rapidly. Continue to boil until mixture thickens. Allow for thickening during cooling.

Test for doneness using one of the methods listed above. When jam is done, remove from heat and quickly skim off foam. Using a wide-mouth funnel, fill the jars into hot, clean jars, leaving 1/4-inch headspace. Adjust lids and process jars as described in table 1.

**Table 3. Measures for preparing jams without added pectin**

<table>
<thead>
<tr>
<th></th>
<th>Cups crushed fruit</th>
<th>Cups sugar</th>
<th>Tbsp lemon juice</th>
<th>Yield (half-pints)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apricots</td>
<td>4 to 5 1/2</td>
<td>4</td>
<td>2</td>
<td>5 to 6</td>
</tr>
<tr>
<td>Berries*</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>2 to 4</td>
</tr>
<tr>
<td>Peaches</td>
<td>5 1/2 to 6</td>
<td>4 to 5</td>
<td>2</td>
<td>6 to 7</td>
</tr>
</tbody>
</table>

* Includes blackberries, boysenberries, gooseberries, raspberries and strawberries.

**MAKING JELLY AND JAMS WITH ADDED PECTIN**

Jelly or jam made with added pectin requires less cooking, provides a larger yield and has more natural fruit flavor. Using added pectin also reduces the need to test for doneness. However, at altitudes above 3,000 feet, jellies or jams with added pectin may need to be boiled a minimum of 2 minutes to reach gel testing point.

Fresh fruits and fresh, canned or frozen juices may be used with commercial powdered or liquid pectin. Follow complete directions provided with commercial pectin. The following recipes usually are available with packaged pectin: Jellies—Apple, blackberry, black or red raspberry, boysenberry, crab apple, currant, dewberry, elderberry, grape, loganberry, mayhaw, mint, peach, plum, rhubarb and strawberry.

Jams—Apricot, blackberry, blueberry, boysenberry, cherry, currant, dewberry, fig, gooseberry, grape, loganberry, orange marmalade, peach, pear, plum, red raspberry, rhubarb, spiced tomato, strawberry and youngberry.

Use Mason canning jars and self-sealing, two-piece lids and process jars in boiling water (see table 1).

**MAKING REDUCED-SUGAR FRUIT SPREADS**

You can make a variety of tasty fruit spreads that are lower in sugar and calories than regular jams and jellies. Recipes for reduced-sugar fruit spreads follow.

**Peach Pineapple Spread**

*Yield: 5 to 6 half-pints*

- 4 cups drained peach pulp
- 2 cups drained, unsweetened, crushed pineapple
- 1/4 cup bottled lemon juice
- 2 cups sugar (optional)

*Preparation.* Thoroughly wash 4 to 6 pounds of firm, ripe peaches. Drain well. Peel and remove pits. Grind fruit flesh with a medium or coarse blade or crush with a fork. Do not use a blender. Place prepared fruit in a 2-quart saucepan. Heat slowly to release juice. Stir constantly until fruit is tender. Place cooked fruits in a jelly bag or strainer lined with four layers of cheesecloth. Allow juice to drip about 15 minutes. Save the juice for jelly or other uses. Combine 4 cups of fruit pulp, pineapple and lemon juice in a 4-quart saucepan. Add up to 2 cups of sugar, if desired, and mix well. Heat and boil gently for 10 to 15 minutes. Stir to prevent sticking. Fill hot, sterile jar quickly, leaving 1/4-inch headspace. Adjust lids and process jars (see Table 1).

This recipe also may be made with any combination of peaches, nectarines, apricots and plums.

Non-nutritive sweeteners may be substituted for sugar. However, the spread must either be frozen or refrigerated and used within two to three weeks.

**Reduced-Sugar Fruit Spreads with Gelatin**

Sweet fruits, apple juice, spices and a liquid, low-calorie sweetener provide sweetness in the next two recipes. Gelatin is the thickening agent. Spreads with gelatin are not processed in a water bath. Refrigerate and use within four weeks. Note: Gelatin spreads tend to become watery when spread on warm toast.

**Refrigerated Grape Jelly with Gelatin**

*Yield: 3 half-pints*

- 2 Tbsp unflavored gelatin powder
- 1 bottle (24 oz) unsweetened grape juice
- 2 Tbsp bottled lemon juice
- 2 Tbsp liquid artificial sweetener

*Preparation.* Soften gelatin in the grape and lemon juices in a saucepan. Bring to a full rolling boil and boil 1 minute. Remove from heat. Stir in sweetener. Pour quickly into hot, clean half-pint jars, leaving 1/4-inch headspace. Adjust lids. Refrigerate and use within four weeks.

**Refrigerated Apple Jelly with Gelatin**

*Yield: 4 half-pints*

- 2 Tbsp unflavored gelatin powder
- 1 qt bottled unsweetened apple juice
- 2 Tbsp bottled lemon juice
- 2 Tbsp liquid artificial sweetener
- Food coloring (optional)

*Preparation.* Soften gelatin in apple and lemon juices in a saucepan. Bring to a full rolling boil and boil 2 minutes to dissolve gelatin. Remove from heat. Stir in sweetener and food
coloring. Pour into hot, clean half-pint jars, leaving 1/4-inch headspace. Adjust lids.

Variation: For spiced apple jelly, add two 3-inch sticks of cinnamon and four whole cloves to mixture before boiling. Remove spices before adding the sweetener and food coloring. Refrigerate and use within two weeks.

REMAKING SOFT JELLIES
If your jelly comes out too soft or watery, it can be remade. Measure jelly to be recooked. Work with no more than 4 cups at a time.

To remake products without added pectin: For each cup of jelly, add 1-1/2 teaspoons bottled lemon juice. Heat to boiling and boil until jellying point is reached. Remove from heat, and quickly skim off foam. Fill hot, clean jars, leaving 1/4-inch headspace. Adjust new lids and process. (See table 4 for processing times.)

To remake products with powdered pectin: For each cup of jelly, mix 1 tablespoon sugar, 2 tablespoons of water, 1-1/2 teaspoons bottled lemon juice and 1 teaspoon powdered pectin. Bring to a boil while stirring. Add jelly and bring to a rolling boil over high heat. Stir constantly. Boil hard 1/2 minute. Remove from heat, quickly skim foam off jelly, and fill hot, clean jars, leaving 1/4-inch headspace. Adjust lids and process. (See table 4 for processing times.)

To remake products with liquid pectin: For each cup of jelly, measure 3 tablespoons sugar, 1-1/2 teaspoons bottled lemon juice and 1-1/2 teaspoons liquid pectin. Bring jelly only to a boil while stirring. Remove from heat and quickly add the sugar, lemon juice and pectin. Bring to a full, rolling boil while stirring constantly. Boil hard for 1 minute. Remove from heat, quickly skim off foam, and pour into hot, clean jars, leaving 1/4-inch headspace. Adjust new lids and process. (See table 4 for processing times.)

Table 4. Recommended process time for remade soft jellies in a boiling-water canner

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<th>Elevation (Feet)</th>
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Previously reviewed by Martha Archuleta, Extension Food and Nutrition Specialist.

Originally adapted for use in New Mexico (1991) from Let's Preserve: Jelly, Jam, Spread, which was developed by Penn State Cooperative Extension Service with special funds from Extension Service, U.S. Department of Agriculture.

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Revised October 2005

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NMSU/Rio Arriba County

Fundamentals of Bee Keeping

Thursday, June 25th 1:30 – 4:30 p.m.

Location: Rio Arriba County Rural Event Center in Abiquiu

Presenter– Bee Professional Melanie Margarita Kirby

Melanie Margarita Kirby is a native New Mexican who has been keeping bees professionally for 19 years- first starting as a U.S. Peace Corps Volunteer in South America. Melanie established Zia Queenbees with her partner Mark Spitzig in 2005 in northern NM. Zia Queenbees provides pollination services, exquisite honeys & beeswax products, consilience research, and survivor queen honeybee breeding following a "Father Time tested- Mother Nature approved" regiment. They have conducted presentations regionally, nationally and internationally on their bee stewardship philosophy and process. Melanie also serves as the editor of Kelley Beekeeping- an online beekeeping newsletter which has over 40,000 subscribers from around the world.

Refreshments will be provided, plus samples of fresh honey.

Cost: $5.00/person please RSVP by June 22nd with Rio Arriba CES at (505) 685-4523.

If you are an individual with a disability who is in need of an auxiliary aid or service to participate in the meeting, please contact Donald Martinez by June 22, 2015 at 505-685-4523 or via email at donmart@nmsu.edu

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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.