Baby Formula & Baby Food
Baby Formula and Baby Food

Babies begin life with a diet of milk. Mother’s milk has long been thought to be the best choice, but many mothers prefer to use infant formula. Infant formulas are safe, healthy for the baby, and can be used alone or in addition to breastfeeding.

Doctors and nutrition experts agree that breast milk or iron-fortified formula is all the food that babies need for the first 4 to 6 months of life. Then you can begin giving the baby other foods also.

Your baby’s doctor will probably give you a prescription for vitamins. These will be in liquid form and are very easy to give to the baby.

The recommendations in this handout are general ones. More advice will be given by your baby’s doctor or nurse when you go for check-ups. Your baby’s doctor should be your best source of advice. Ask questions. You may hear many myths and old wives’ tales about child care and feeding.

This handout gives you information on what and how to feed infants, how to help them learn to feed themselves, and, most importantly, how to make meals a fun and happy time. For more information on the differences between breastfeeding and bottle-feeding, ask your Extension home economist for publication HE-527.

Feeding Babies

As babies are fed warm milk in the arms of a caring adult, they feel happy and secure. Feeding can be a relaxed time that you and your baby share. Talk to your baby during feeding and watch the baby look at and listen to you.
General Tips For Bottle Feeding

**Position.** Both you and your baby should be comfortable. Make sure the baby is warm and dry. Be sure to choose a comfortable chair or sofa with pillows to support your elbows. Place the baby on your lap with his or her head slightly raised and resting in the bend of your elbow. The baby should be in a semi-sitting position to keep the airways open and allow for easy swallowing.

Tilt the bottle in the baby’s mouth so the nipple and neck are full of milk. The baby should not be sucking air. Stop about halfway through the feeding and burp the baby. Babies usually burp air and spit up a little formula. Burp the baby again after feeding. If the baby does not finish the bottle, throw the rest away. Do not save it for a later feeding.

Sometimes a baby sucks so hard on the bottle that the nipple or bottle liner collapses. The baby keeps on sucking but nothing comes out. Move the bottle in your baby’s mouth from time to time, or remove the bottle entirely for a moment. This will break the suction.

**Schedule.** Most babies today are fed on demand—that is, when they are hungry. In the first weeks of life they should be fed as often and as much as they want. Newborns are usually hungry about every 3 to 5 hours. When babies are hungry, they cry, suck their fingers, or make sucking movements with their mouths. However, not all crying means hunger. Check first to see if the baby needs a clean diaper, is comfortable, or just wants to be held. A baby who wakes up less than 2 hours after a feeding is probably not hungry. Your baby may be satisfied with water or a pacifier. As babies grow, their needs change. A baby who takes a bottle every 3 hours this week may need a bottle every 4 hours next week.

**Amount.** From birth to 1 month of age, most babies take 18 to 24 ounces of formula or breast milk per day. By the fourth month most babies have doubled their birth weight and are taking 24 to 30 ounces of formula. If your baby takes all the formula and seems to want more, add ½ ounce to the next feeding. When the same thing happens again, add another ½ ounce. Having a little left in the bottle tells you your baby has had enough food.
Your baby may not finish the whole bottle at each feeding. Watch for signs of fullness. Trying to make infants finish bottles when they are no longer hungry teaches them to over-eat. Infants are full when they:

- Play with the bottle, letting milk dribble down the side of the mouth.
- Fall asleep while nursing.
- Cry.
- Turn away or refuse the bottle.

Always hold the baby while feeding, and try to be relaxed.

**Never prop the bottle.** Propping can cause choking or ear problems. It also deprives the baby of closeness to you. Talk softly, and respond to your baby’s gurgles and eye movements.

**Formula**

Formula comes in three forms: ready-to-feed, concentrated liquid, and powder. The easiest but most expensive is ready-to-feed formula in disposable bottles. You simply place the nipple on and feed. Ready-to-feed formula also comes in large and small cans.

The liquid concentrate comes in cans and must be diluted with water, usually one can of water for one can of formula. The concentrate must be refrigerated after opening.

Powdered formula is mixed with warm water. You simply add scoops of powder to a measured amount of water.

There are many brands of formulas and many different kinds of infant formulas. Most are based on cow’s milk, modified to make the formula as much like breast milk as possible. Vitamins and iron have been added to the formula. Other kinds of formulas include:

- Soy protein formulas for infants allergic to cow's milk.
- Pre-digested formulas for very sensitive infants.
- Formulas for premature infants.

Do not switch formulas without your doctor's advice. There are important differences between formulas.
Preparing The Formula

It is very important that you always read the manufacturer’s instructions for formula preparation. If you do not follow instructions you may give the baby a formula so concentrated that his or her kidneys cannot take it. The result may be a serious illness.

Preparing infant formula correctly and under sanitary conditions is extremely important for the health and safety of your child. You should always wash your hands and start with clean bottles and nipples.

General Guidelines For Preparing Formula

1. Before using water to mix the formula, you should find out if your water is safe for newborns. Most city water is safe to use from the tap. Well or spring water must be boiled for 5 minutes before use. If you travel and are not sure of the water supply, take bottles of water with you or boil the water. Some doctors recommend that you boil water for baby formula until the baby is 4 months old. Follow your doctor’s advice.

2. Wash the top of the can and the can opener with hot, soapy water. Rinse them well before opening the can.

3. If you own a dishwasher, rinse out the bottles after use and wash and dry them in the dishwasher’s bottom rack. You may wash the nipples in the dishwasher too, or sterilize them separately in a pot of boiling water. Store them in a clean jar until you are ready to use them.
4a. For ready-to-feed: Pour the formula directly into a clean bottle, cover with a nipple, and feed.

4b. For concentrate: Measure water using a clear measuring cup. Bend down to check the water line at the measuring mark at eye level. Do not use the markings on the bottle to measure unless the bottle has straight sides. Put the water in a clean bottle. Add the required amount of formula concentrate. For each type of bottle you use, you can check the measurement marks on the bottle using your measuring cup. Measure 4 ounces of water into your measuring cup and pour this amount into the bottle. See if the water comes to the 4-ounce line. If measurements are exact, you may pour water directly into the bottle. Never use the markings on disposable bottle holders to measure the water.

4c. For powdered concentrate: Measure the water into a clean bottle using the same method as described above. Add the powder. Check the directions for scooping and leveling the powder. The way you measure the powder will affect the amount that goes into the formula. If you change formulas be sure to check the new directions for any differences. Shake the bottle to mix.

5. After feeding, throw away any formula left in the bottle. Never save it for a later feeding.

6. Cover any open can of formula and store it in the refrigerator.

If you don’t have a dishwasher or are not sure about your water supply, you can sterilize several bottles of water at a time and store them at room temperature until needed. To do this:

- Wash and rinse bottles, nipples, rings, and caps.
- Fill each bottle with the correct amount of water.
- Cover with nipples and caps.
- Boil in a sterilizer or large pot for 25 minutes.
- After the bottles have cooled, remove them from the sterilizer and store them until needed.
Disposable Bottles. Disposable bottles are narrow sacks of transparent plastic. The complete kit comes with plastic holders, nipples, rings, and covers. They are sterilized and ready for adding formula or water to prepare the formula. Do not reuse the plastic sacks. Throw them away after use.

Heating Formula. Babies will take cold formula and it will not harm them. However, most people like to warm the bottle. Use a bottle warmer, a pan of water, or warm running water. Always check the bottle. Hold it upside down and shake a few drops of formula onto your wrist or inner forearm. Be sure the milk is no more than lukewarm and that it drops slowly.

Warming the baby’s bottle in a microwave oven is risky. Disposable bottles may explode. Most important, it is very easy to get the formula too hot while the bottle is cool or lukewarm. A bottle warm to the touch may contain milk hot enough to burn an infant’s mouth. So, to be safe, do not warm your baby’s bottle in a microwave oven.

Storing Formula. Bacteria grow rapidly in milk. All mixed formula and opened ready-to-feed formula must be stored in the refrigerator or on ice if traveling. When traveling, take the prepared bottles of water with you and mix your formula as needed.
Cup Training

Begin cup training when babies can hold their heads steady while sitting up—usually at 6 to 7 months. Begin by holding the cup with your hands around the baby’s hands. Also, put only a small amount of liquid in the cup. To avoid spills, use a special cup that has a spout at the top and is weighted at the bottom. Continue to give most of the formula from the bottle or breast to make sure the baby gets enough. But give juice and some milk and water from a cup. By the end of the first year, the baby should be able to take most liquids from a cup.

Some babies are ready to give up the bottle by 8 or 9 months, and others are not ready until 15 months. Watch for these signs: playing with the bottle, looking around while sucking, or not taking the bottle when given other foods. In weaning, offer milk for one feeding from a cup. If the baby does not finish, give the rest from a bottle. Continue offering milk from a cup when the baby is hungry. Many babies can be weaned completely when they are about a year old. Some will want a bottle at bedtime until they are 2 years old. Do not give babies a bottle every time they cry.
WARNINGS: Use bottles only for formula, breast milk, water, and fruit juices. Never give cereal, fruit drinks, iced tea, or sodas to your baby in a bottle. Never give your baby a bottle to suck in bed. It is harder to wean a child who has become used to this. Also, bottle-feeding can cause tooth decay (commonly known as nursing bottle syndrome) and increase the chance of ear infection.

Other pointers:
• During hot weather, offer babies plain cool water at least twice a day in addition to formula.
• Never put sugar in the baby's water or milk.
• Babies need formula or breast milk until 1 year old, then whole milk.
• Wait until babies are at least 2 years old before giving them skim milk or non-fat milk.
• Honey and corn syrup should not be fed to infants under 12 months of age. Also, do not put these products on pacifiers. Both contain microorganisms which may be harmful to very young children. Honey and corn syrup are not harmful to children over 1 year of age, although they do promote tooth decay.
• Do not add cereal to formula in the bottle.
• Do not give citrus fruits, egg whites, shellfish, or chocolate to a baby before 1 year of age. These foods may cause allergic reactions.
Starting Solid Foods

Most doctors say that babies should not be given solid foods until 4 to 6 months old. Starting solid foods before this age may cause allergies and weight problems. Solid foods do not help the baby sleep through the night! If you wait to start solid foods, the baby is more mature, can sit up, and is more likely to take the strange foods from a spoon. The change from formula to baby food to table food goes fast. By the time the baby is 10 to 12 months old, he or she should be:

- Sitting in a high chair.
- Eating family food meals — chopped, of course.
- Drinking from a cup with a spout.

It may seem as if you should get started early to accomplish all that in a short time. But starting when the baby is 5 to 7 months will make it easier. Let your doctor (and your baby) tell you when to start solid foods, not neighbors or friends.

Iron-fortified infant rice cereal is usually the first food. Start with 1 to 2 tablespoons mixed with formula until soupy. As the baby becomes used to it, gradually make the cereal thicker. Later, when the baby starts self-feeding, the cereal must be thicker to stay on the spoon.

Babies are born knowing how to suck, but they have to learn how to swallow solid foods. Using a small spoon, place a little cereal (about \(\frac{1}{4}\) teaspoon) on the baby's upper gum in a wiping motion. The cereal will fall on the baby's tongue where it can be tested before going down. Or you may place it directly on the tongue.

Babies often spit out new food. This does not mean they do not like it. They may have trouble swallowing, or the food may be too warm, or they may want milk first. Some parents put cereal in bottles or infant feeders. This is not a good idea because it keeps the baby from learning to swallow and chew. It also leads to overeating.
Give babies the same food for about 3 days before trying a different kind. Watch for any reaction such as gas, diarrhea, skin rash, or vomiting. If your baby has such a reaction, stop feeding the food. When the baby is over the upset, try a different new food. Be sure to make a note about any food that does not agree with the baby. A reaction does not mean that your baby is allergic to that food for life. It most likely means the baby’s body is not ready for that food yet.

As you prepare baby foods, be very careful about washing your hands and following other sanitary practices. Food in an opened jar should not be kept in the refrigerator longer than 3 days. Do not feed from the jar. Use a cup, saucer, or small bowl. Throw away uneaten food. Do not put it back in the jar. The baby’s saliva will make it watery.

If your baby does not like a food, do not force him or her to eat it. Wait a few weeks and try it again.

Watch for signs that the baby has had enough to eat. The baby may play with food, spit it out, throw it on the floor, turn away, refuse to open his or her mouth, cry, or try to get down.

When will your baby be ready for different kinds of food? Every baby is different, but there are some general guidelines. The following information is from the Food and Nutrition Service of the USDA. Ask your baby's doctor when to start new foods with your baby.

<table>
<thead>
<tr>
<th>Age In Months</th>
<th>Introduce New Foods</th>
<th>Introduce New Textures and Feeding Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 3</td>
<td>Breast milk or formula</td>
<td>Liquids</td>
</tr>
<tr>
<td>4 – 7</td>
<td>Cereal</td>
<td>Strained/Pureed</td>
</tr>
<tr>
<td></td>
<td>Fruit</td>
<td>Mashed</td>
</tr>
<tr>
<td></td>
<td>Vegetables</td>
<td>(beginning 5 months)</td>
</tr>
<tr>
<td>8 – 11</td>
<td>Meat or meat alternates</td>
<td>Ground/finely chopped</td>
</tr>
<tr>
<td></td>
<td>Crackers or bread</td>
<td>Some cup feeding</td>
</tr>
<tr>
<td>12</td>
<td>Whole milk</td>
<td>Chopped/chunks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Self-feeding</td>
</tr>
</tbody>
</table>
When starting a baby on solid foods, it helps to know the following:

**Baby Cereal** - Boxed baby cereal is rich in iron. It costs less than baby cereal in jars. Begin with rice and later try barley, oat, and wheat. Last, try mixed cereals. Iron-fortified baby cereals are important because the iron the baby was born with begins to be used up at 4 to 6 months of age.

**Juices** - Begin with apple or grape juice. Dilute the juice half-and-half with water. Then try orange, grapefruit, and tomato, but do not offer the orange and grapefruit juices until 8 months. The stronger citrus juices may cause allergies or irritate the baby’s stomach. Diluted juices may be given at about 3 months, but no more than 4 ounces a day.

**Strained Fruit** - Begin with mild fruits such as applesauce or ripe mashed bananas. Then try peaches, apricots, plums, and pears. Fruit desserts, cobblers, and fruits with tapioca contain more starch and sugar. Plain fruits are better. Begin when the baby is 5 to 7 months old. Except for ripe bananas, do not give raw fruits or vegetables to babies, because these foods may cause choking and be difficult to digest.
**Strained Vegetables** - Begin with mild vegetables such as green beans or carrots. Then try squash, green peas, sweet potatoes, and beets. Begin at about 6 to 8 months of age.

**Strained Meat, Poultry, And Cheese** - Start with a mild meat such as chicken. Fish that you steam or broil for your family is excellent for the baby. Besides being nutritious, it is already soft. Begin at about 8 to 11 months of age.

**Egg Yolk** - Hard cook and mash with a fork. You should normally wait until the baby is about 8 months old to feed egg yolk.

**Egg White** - Wait until the baby is 1 year of age.

**Junior Foods** - By 12 months of age most babies can eat foods that are more coarsely chopped. You can purchase jars of “junior foods,” or you can begin using more chopped foods from your family’s meals and not mashing the foods as finely. These include cheese strips, chicken strips, crackers, and unsweetened breakfast cereals.

---

**WARNING:** Choking is a frequent cause of death in young children. They can choke on almost any food, but they are more likely to choke on foods that are smooth, hard, slippery, and just the right size to plug up the throat. For example, candy, nuts, hot dogs, grapes, popcorn, and even peanut butter cause choking in young children. Be sure pieces are small and soft enough. Before chewing teeth come in, babies need foods they can “gum.”
Tips On Starting New Foods

1. Feed babies with a small spoon, *not* an infant feeder (a bottle feeder).

2. Do not worry if babies spit out first foods. They are getting used to the spoon and also learning to swallow.

3. Start babies slowly on different foods from each of the food groups. Try only one new food every 3 to 4 days. This is one way to check for allergies.

4. Once you start a food, continue using it. If your baby does not eat a certain food for several weeks, begin feeding it again as if it were a new food.

5. Start with pureed or strained foods. Wait until the doctor recommends ground and chopped foods before feeding them.

6. Mix a new food with a cereal or meat the baby already likes. Or serve it along with a food the baby likes.

7. Start with about a teaspoon on the first day of the new food. Increase it to 1 tablespoon by the third day. If the baby doesn’t show a reaction to the food, add it to the regular diet. But still watch for a reaction.

8. Serve baby food cold or lukewarm. Most babies will eat cold food. If you prefer to warm the food, heat it just before serving. Bacteria grow fast on lukewarm food. Thoroughly stir and check all baby foods before feeding them. Do not heat baby food in a jar in a microwave oven. Many babies have been burned when given food heated in a microwave oven.
Babies Learn To Feed Themselves

When babies can sit by themselves in a high chair, give them finger foods such as small pieces of banana or dry cereal that is easily dissolved. These foods get babies used to feeding themselves. Enriched bread and crackers are also good for stimulating gums when babies are teething.

At 8 to 10 months, babies may reach for their spoons and try to feed themselves. They may also drop or throw their spoons on the floor. This is a time when babies are learning many new things. At first they will not get much food in their mouths. They may get angry and cry. Feed them with a second spoon until they can get enough on their own. By 24 months, most babies are able to feed themselves with a spoon.

Be patient. Do not worry about the mess your baby makes. Dress the baby in a bib or old shirt, and place newspaper or an old plastic shower curtain on the floor. That way it will not matter if the baby spills or drops food. Praise your baby for attempts to self-feed.

Most important, remember that when babies start feeding themselves, they give up some of the closeness they felt in being nursed. Try to find other times to hold your baby and give him or her lots of affection throughout the day.
Buying Baby Food

Commercial baby foods are consistent in quality, are sanitary, offer variety, and can be as nutritious as home-prepared baby foods. They are also more convenient for traveling and for working mothers.

The supermarket offers a wide variety of baby foods and food combinations. Your best choices are the plain meats, vegetables, fruits, and egg yolks.

Foods labeled “vegetables with meat” are only about 10 percent meat, which is added for flavor. These should not take the place of a plain meat. Plain protein foods such as beef, veal, and poultry are higher in protein than the combination dinners.

Creamed vegetables have added starch, so they contain less vegetable than plain ones. At first, feed your baby mild-tasting vegetables (carrots, peas, green beans, squash). Later on, add the stronger-tasting vegetables.

Egg yolks mixed with cereal should not take the place of plain egg yolks. Never use raw eggs in your baby’s food.

Use plain fruit juice. Do not use fruit drinks or imitation flavored fruit-ades. Babies usually like bananas and cooked bland fruits (apples, pears, peaches). Fruit desserts should not take the place of plain fruit. Desserts are not really needed. They only teach your baby to want sweets.

Low-fat milks should not be given to children under 2 years of age. They do not provide enough energy for growing infants. Milk fat in whole milk supplies essential calories, nutrients, fats, and cholesterol. Cholesterol is necessary for the baby’s development of nerve fibers.

Baby food contains very little salt. Too much salt adds an extra burden on the body, especially the kidneys. Do not add salt to baby food to suit your taste. Babies have not yet developed the taste for salt that you have.

Baby foods come ready-to-serve in jars and also as powdered instant foods in boxes and cans. These instant foods are cereals, fruits, and vegetables. These foods are as nutritious as the foods in jars.
Store commercial baby foods in a dark, cool, dry place. Buying a large supply may not be wise. Most baby foods have a shelf life of only 1 year. Always remember:

- Take special care to keep baby food safe.
- Wipe jars and jar tops with a clean cloth before opening.
- Remove only enough food from a jar for one feeding. Close the jar and store it immediately in the refrigerator. Use the remaining food within 1 or 2 days.
- Do not feed your baby from the jar. Remove a small amount from the jar to a clean dish. The saliva on the spoon will break down the food and make it runny. Also, bacteria from the baby's mouth will grow on the food.
- Always throw away uneaten food. Do not put it back in the jar.

**Preparing Baby Food At Home**

More and more families are making their own baby food. This gives you more control over what the baby eats. Also, preparing baby food at home can save money, especially if you have home-frozen fruits, vegetables, and meats.

You can prepare nutritious foods for your baby by running fruits and vegetables through a blender. When preparing baby foods, don’t add salt, sugar, starch, or fat. Salt is naturally in all foods. Sugar is in fruits, vegetables, and milk. Starch is found in cereals. Also, babies get enough fat from breastfeeding or formula.

If you want to make baby food from the foods prepared for your family, put aside enough for the baby before adding the seasonings. Also, do not make baby food from products which have already been seasoned, such as bacon, bologna, and hot dogs. Family foods that make good baby foods are plain noodles, pasta, macaroni, rice, grits, yogurt, cottage cheese, fish (steamed, broiled, or microwaved), vegetables, and fruits. At first you may have to mash or puree these foods, but they are all soft enough for babies 7 to 8 months old.
Remember, do not use honey or corn syrup in food for babies under 1 year old.

Home-canned vegetables, fruits, and meats can be used to make baby foods. All home-canned foods should be boiled for 10 to 20 minutes. The thicker the food, the longer the boiling time.

**Preparation**

- Scrub all equipment with hot water and soap, and rinse well.
- Prepare fresh vegetables and fruits, removing skins, pits, or seeds. Cook fresh foods as needed by steaming or boiling them in a small amount of water until tender.
- Boil home-canned foods for 10 to 20 minutes.
- Prepare baby food using one of the following methods:
  1) Mashing: Mash soft food with a fork until it has no lumps. Ripe bananas and cooked foods such as apples, white potatoes, sweet potatoes, and carrots can easily be mashed to feed a baby.
  2) Sieving or straining: Use a clean, fine-mesh wire sieve or strainer. Push cooked food through with a spoon. Repeat this until the food has no lumps.
  3) Blending: Follow blender directions. Blend so that the food is smooth with no lumps.
  4) Milling: Put cooked food through a food mill.
  5) Grinding: For babies 8 to 10 months, put cooked meat through a meat grinder and then in a blender. When the baby is 10 to 12 months old, the meat will only need to be ground or finely chopped.
**Storage**

- Store prepared baby food in clean, covered containers in the refrigerator at 40 degrees F for 1 or 2 days. For longer storage, the food should be frozen. Baby food spoils more easily than other foods because it has been pureed or ground.

- To freeze pureed food, put it into ice cube trays or paper muffin-cup liners. Cover the food to freeze it. When frozen solid, store the cubes in a plastic freezer bag in the freezer at 0 degrees F. Use them within 1 month.

- Take out only enough frozen food for one feeding. Put the cube in a clean glass custard cup and set it in a pan of hot water or in a microwave oven to thaw. (Never put a jar of baby food in a microwave oven.) Test to be sure the food is only lukewarm — not hot. Use the food immediately after thawing. Discard any left-over food.

- Home-canning of baby food is not recommended. Foods that have been strained take longer to process than those prepared in the normal way for home-canning. Commercial baby food jars should not be used for canning. They require special equipment for sealing which is not available to homemakers.
Recipes

The following recipes are in one- to two-serving sizes. These can be doubled or tripled if the food is to be frozen.

Cooked or Canned Fruits, Vegetables, and Meats

½ cup of cooked or canned fruit, vegetable, or meat
2 to 4 tablespoons of liquid (cooking liquid, formula, or water)

Remove any skins, pits, seeds, or bones before cooking. Cut food into 1-inch pieces. Puree or blend.

Vegetables: Use peas, carrots, spinach, squash, beets, green beans, or sweet or white potatoes. Do not use cabbage, onions, or other strong-flavored vegetables.

Fruits: Use apples, apricots, peaches, pears, plumbs, prunes, and bananas. Do not use citrus fruits or juices until the baby is 1 year old.

Meats: Use beef, fresh pork, fish, veal, lamb, and chicken with no bone, skin, gristle, or fat.
**Fresh Fruits**

½ cup of fresh peeled and pitted fruit.
¼ teaspoon of sugar, if desired

Cut fruit into 1-inch pieces. Puree or blend.

---

**Egg Yolk**

Clean, uncracked eggs
1 tablespoon of formula for each egg yolk

Put eggs in a saucepan. Cover with cold water to about ½ inch above the eggs. Bring the water to boiling point and turn off heat. Cover, and allow to sit for 15 to 17 minutes. Cool promptly with cold running water. Peel eggs and remove yolks. Combine egg yolk with formula and mash until smooth.
References


Texas Agricultural Extension Service. *Child Care, A Family Day Home Care Provider Program*. College Station, TX, 1987.

Barbara Struempler, Extension Nutritionist, Professor, Auburn University. Originally prepared by Dorothy Tate, former State Leader – Home Economics.

For more information, call your county Extension office. Look in your telephone directory under your county’s name to find the number.

Issued in furtherance of Cooperative Extension work in agriculture and home economics, Acts of May 8 and June 30, 1914, and other related acts, in cooperation with the U.S. Department of Agriculture. The Alabama Cooperative Extension System (Alabama A&M University and Auburn University) offers educational programs, materials, and equal opportunity employment to all people without regard to race, color, national origin, religion, sex, age, veteran status, or disability.

© 2006 by the Alabama Cooperative Extension System. All rights reserved.