



July-September 2010

Volume 9, No. 4

Metro News

... Making Extension Connections

Dangers of Exotic Pets

Dr. Julio Correa, Extension Animal Scientist



Big cats, primates, small mammals, birds, and reptiles are available for sale from dealers across the United States (US). This means the public has easy access to inherently dangerous animals that are unsuitable as pets. Exotic animals do not make good companions and pose serious health risks if they become aggressive. In the last five years in the US, nine people have been killed by privately kept tigers, and each year, 90,000 people are treated for *Salmonella* infection contracted from reptiles such as small turtles and lizards.

People do not seem to fully understand the health and safety risks associated with owning an exotic animal. Wild and exotic animals are notorious vectors or reservoirs for diseases and parasites that can cause serious harm to humans of all ages. Furthermore, some exotic animals need a larger habitat than just a backyard or cage. Keeping exotic animals isolated in close quarters with no room to roam increases their stress levels and causes some animals to become agitated and dangerous.

The ownership of exotic wildlife as house pets presents a real danger to families, neighbors, communities, and the public-at-large. Following are examples of exotic animals that have posed harm to people as pets.

- Monkeys are one of the most common exotic pets. Often bought as cute and cuddly babies, they become larger and more aggressive as they reach sexual maturity. The male chimpanzee tends to be the most aggressive. Of great notoriety was the mauling of Charla Nash on February 16, 2009, in Stamford, Connecticut. Nash was savagely attacked by a 14-year-old pet chimpanzee named Travis. Travis was owned by her friend and employer, Sandra Herold. The chimp broke most of the bones in Nash's face and ripped off her nose, lips, eyes, and hands. Travis was eventually shot by local authorities.

(continued on page 3)

Synopsis: Breed Evaluation for Health, Reproductive, and Carcass Traits in Meat Goats

By Dr. Maria Lenira Leite-Browning, Extension Animal Scientist



Compared to other livestock industries, commercial meat goat producers have a limited variety of goat breeds to consider when developing a breeding program. However, it's still important to provide producers with research-based information that will aid them in their selection process.

In the United States, Kiko, Spanish, and Boer goats are the three primary breeds represented in commercial goat herds. The South African Boer is the predominant meat goat genotype in the United States today. The Kiko is a composite meat goat breed developed in humid New Zealand, while the Spanish breed is a breed-type that evolved in Texas from Spanish stock. Spanish goats were the main meat goat genotype in the country before the arrival of Boer and Kiko goats in the mid-1990s.

Warm and humid pastures found in the Southeast are optimal conditions for gastrointestinal parasites and hoof pathogens, which makes it difficult for many goat producers to raise goat herds in states like Alabama and Tennessee. In addition, internal parasites and lameness require additional time, labor, and supplies for prevention and treatment. To further investigate these herd health management issues, a five-year study was conducted at Tennessee State University's Agricultural Research and Education Center under the leadership of Research Associate Professor Dr. Richard Browning, Jr., and in collaboration with Dr. Maria Browning. The study focused on evaluating performance and various health indicators of Boer, Kiko, and Spanish goats under semi-intensive, pasture management conditions found in the Southeast.

(continued on page 3)



A young rabbit (3 to 4 mos) should weigh 3 to 4 lbs.

Getting to Know Your Local Rabbit Producers

Robert Spencer, Urban Regional Extension Specialist

In 2009, the United States Department of Agriculture (USDA) implemented a new program called Know Your Farmer, Know Your Food. This program promotes economic opportunities for farmers by connecting consumers to local food sources. The overall goals of this program not only support local farmers, but they strengthen rural communities, promote healthy eating, and protect natural resources.

While farmers grow food to feed people around the world, the Know Your Farmer, Know Your Food program is aimed at helping local small farms and ranches. By participating in this program, farmers have a chance to promote their products and strengthen local infrastructure, and people have a chance to purchase fresh, farm-grown food. Healthy eating means healthy communities everywhere.

Benefits of Rabbit Meat

Rabbit farmers will certainly benefit from the Know Your Farmer, Know Your Food program. Rabbit meat is a product not readily found in most commercial grocery stores. Rabbit production can be done on a low budget and with a limited amount of land. Such an endeavor could also provide families with an alternative meat source. Rabbit meat is a lean white meat, similar to chicken, with equal health factors and culinary versatility when it comes to nutrient considerations and recipes.

For example, rabbit meat is low in sodium and a good source of niacin, phosphorus, protein, vitamin B12, and selenium. However, rabbit meat is high in cholesterol. A 3-oz piece of rabbit meat contains 165 calories, 7 gm of total fat, no trans fat, 40 mg of sodium, 0 carbohydrates, and 25 gm of protein. Since rabbit meat is not easily found in neighborhood grocery stores, you may have to special order it from a grocer or visit a meat market that specializes in exotic meats.

Barring zoning restrictions, a person or family could raise their own rabbits for harvest. In the Tennessee Valley area it is difficult to find a USDA-approved processing facility that will process rabbits, and few custom slaughter facilities are set-up to process rabbits. In some regions of the

country, USDA mobile slaughter facilities may be available. Unfortunately, mobile slaughter units are unavailable in this area. Therefore, a person must be willing to process their own rabbits as a food source.

Rabbit Production

For those individuals considering rabbit production, a small rabbitry (housing structure with cages) of 100 sq ft can easily accommodate four producing rabbit does, one rabbit buck, and 12 cages with water bottles and feeders. The building should be a simple barn that is partially enclosed with good ventilation and adequate protection from rain and direct sun. Other inexpensive accessories may be required. The biggest investment will be the barn, cages, and rabbits. Four does should easily yield 6 kits (offspring) three times a year. A young rabbit (3 to 4 mos) should weigh 3 to 4 lbs. Rabbits at this stage are called fryers because they are just the right size for frying and still very tender. Bigger and older rabbits are called roasters and need to be cooked slowly to avoid tough, chewy meat.

If you are not interested in raising your own rabbits but enjoy gardening, consider helping out your local rabbit farmer by using rabbit manure as a natural fertilizer. Garden plants respond well to rabbit manure as fertilizer, especially when it's been composted, although it can be spread directly onto garden beds. Properly stored it tends to be relatively dry and odorless, making it appropriate for direct use in the garden. Since it breaks down quickly, there is usually little threat of burning plant roots. As a fertilizer, rabbit manure is rich in nitrogen and phosphorus, and other nutrients plants need for healthy growth. Rabbit manure is generally obtained directly from rabbit farmers. Most will gladly provide you with manure for your gardens if you are willing to pick it up at the farm and transport it yourself. Given the limited amount of space a rabbitry occupies, and the fact their manure can be used as natural fertilizer, they have a very limited ecological footprint that helps to protect natural resources.

(continued on page 3)



A small rabbitry (housing structure with cages) of 100 sq ft can easily accommodate four producing rabbit does, one rabbit buck, and 12 cages with water bottles and feeders.

Getting to Know Your Local Rabbit Producers

(continued from page 2)

Get to Know Your Rabbit Producers

In keeping with the USDA initiative Know Your Farmer, Know Your Food, you are encouraged to consider rabbit meat and getting to know your local rabbit producers. While rabbit meat is not your typical protein supply, it is a viable healthy meat alternative. In addition, rabbit production can be small or large scale, and continues to be a common form of livestock production throughout the world.

Dangers of Exotic Pets

(continued from page 1)

- Felines such as lions, tigers, and cougars are also common pets. Again, these animals may look cute and cuddly when they are young, but they have the potential to seriously injure or kill people as they mature. The most notorious case was the attack of Roy Horn on October 3, 2003, at the MGM Mirage Hotel and Casino in Las Vegas. A 7-year-old trained white tiger named Montecore attacked and carried Roy Horn off stage by the throat during Siegfried & Roy's long-standing show at the Mirage. Horn suffered massive blood loss and a stroke. Incidents involving large exotic cats often result in fatalities.
- Reptiles, including baby turtles pose health hazards to humans. Ninety percent of all reptiles carry and shed *Salmonella* in their feces. People can become infected by ingesting *Salmonella* after handling a reptile or objects the reptile contaminated, and then failing to wash their hands properly. The Centers for Disease Control and Prevention recommends that children, people with a lowered immune system, and the elderly avoid all contact with reptiles and not own them as pets. Salmonellosis associated with exotic pets has been described as an important public health issue, affecting more people than any other single disease.
- Other exotic animals that pose grave dangers to human health and safety include bears, wolves, prairie dogs, hedgehogs, hamsters, alligators, snakes, and other reptiles such as iguanas and lizards.

In addition to posing dangers to humans, exotic animals themselves suffer when privately kept. Exotic animals kept as household pets are forced into unnatural lives that include confinement in close quarters and surgical removal of teeth and/or claws. These circumstances, which are often deplorable, compromise the animals' physical and psychological welfare.

Although ALA. ADMIN CODE r. 220-2-.26 stipulates that "no person, firm, corporation, partnership, or association shall possess, sell, offer for sale, import, bring or cause to be brought or imported into the state of Alabama" certain live fish or animals, there are no state laws or rules governing private possession of exotic animals such as lions, tigers, or monkeys. Therefore, it is incumbent upon state and local government agencies and non-profit organizations like Extension to educate the general public about the health and safety risks associated with owning exotic animals, and the suffering of the animals themselves doomed to live in environments far different from the ones nature intended.

Synopsis: Breed Evaluation for...

Meat Goats (continued from page 1)



The study revealed that proper breed selection for commercial meat goat production is dependent on the objective assessment of breed options under commercial (generally low-input) production conditions. Fitness (survival and reproduction), growth, and carcass merit are all important traits to evaluate, while survival and reproduction are most important for profitability and sustainability of a commercial enterprise. Semi-intensive pasture and extensive range management environments are dynamic and often less than ideal. Widespread use of new breed germplasm without sufficient research to characterize breed strengths and weaknesses under restricted-input management programs can prove financially detrimental in the long-term. The study further revealed that the introduced Boer breed generally performed poorly across the range of performance traits measured when compared to the foundation Spanish breed and introduced Kiko breed. The latter two exhibited general hardiness and appeared better suited for commercial meat goat production on humid, subtropical pasture.

For a full-text copy of an article on the Tennessee State goat study by Dr. Richard Browning and Dr. Maria Leite-Browning, visit <http://faculty.tnstate.edu/rbrowning/SincorteBrazilArticle.pdf>.



One cup of kohlrabi has only 36 calories with nearly five grams of fiber.

Introducing Kohlrabi

Jerry Chenault, Urban Regional Extension Specialist

About Kohlrabi

Kohlrabi has been grown in Europe since the 1500s. It is the cousin of more commonly known vegetables like cabbage, cauliflower, broccoli, and collard greens that are all bred from the wild cabbage plant (*Brassica oleracea*).

Kohlrabi may appear light green to purple in color and is generally round and hard, growing two to four inches in diameter. However, there is a variety called "gigante" or "Superschmeltz," that is said to be mild, sweet, and good-textured.

Kohlrabi is a great host for the white cabbage butterfly and also cabbage loopers. It is no more difficult to grow than other members of its family like cabbage, turnips, or broccoli. It can be cooked or eaten raw. But if you're going to eat one raw, be sure it isn't too old. Like people, kohlrabi grows tougher as it gets older!

It is best to plant this vegetable in the spring. Wise gardeners will not plant kohlrabi all at once. Instead, they will make smaller plantings every two to three weeks for a continuous spring and early summer harvest. Many vegetables fall into this category. Kohlrabi seeds should be sown in rows and covered one-fourth to one-half inch deep. Later, the seedlings should be thinned to two to five inches apart. Most growers prefer to harvest kohlrabi when it is small and tender (approximately two inches in diameter). It tends to get tough, off flavor, and woody when it gets large. However, the young leaves can be cooked like other greens.

Kohlrabi in History

Apicius, a collection of Roman recipes compiled in the fourth or fifth century, mentions kohlrabi several times. Even more interesting is that Charlemagne, Emperor of the Holy Roman Empire from 800 AD, ordered kohlrabi grown in all the lands under his reign. Charlemagne is considered French, but his city of residence, then called Aix-la-Chapelle, is now Aachen. Aachen is found in Western Germany; hence the German name *kohlrabi* that means "cabbage turnip."

Kohlrabi has been a dietary staple in Northern India since the 1600s, and is also an established vegetable in China and Africa. It's difficult to understand why the vegetable is not frequently eaten in America. One cup of kohlrabi has only 36 calories with nearly five grams of fiber. It's also an excellent source of Vitamin C and Potassium, and it contains important phytochemicals that are not destroyed when cooked.

Kohlrabi Cooking Tips

Wash kohlrabi just before using. Small kohlrabi bulbs that are young and tender generally do not require peeling. Medium to larger sizes should be peeled to remove the protective outer skin. The bulb can be sliced, cut into quarters, cubes, or julienne strips and steamed until crisp-tender. Or you can sauté kohlrabi in butter or olive oil, or boil and mash like potatoes. The whole peeled kohlrabi can be added to braised dishes and stews. The crisp flesh can be served raw in salads, as a relish, or as a crunchy accompaniment to dips. The kohlrabi has delicious leaves that are tender and excellent in salads or stir-fried. Why not add kohlrabi to your diet today.



Charlemagne is considered French, but his city of residence, then called Aix-la-Chapelle, is now Aachen. Aachen is found in Western Germany; hence the German name kohlrabi that means "cabbage turnip."

Innovative Horticulture Production Strategies

By Dr. Cathy Sabota, Extension Horticulture Specialist

Traditional production of fruits, vegetables, flowers, and nursery crops can be improved upon with the infusion of a few innovative ideas. Although high tunnels, relay cropping, intercropping, rainwater collection, and the addition of nontraditional crops can intensify the workload, the monetary rewards can be phenomenal.

What are high tunnels?

High tunnels are simply greenhouses without heat or cooling systems. They are usually 20 to 30 feet wide and 24 to 96 feet long. Ideally, a high tunnel will have sides that roll up, and end doors that open to allow air to flow through, as well as insect pollination, and the entry of small tractors or tillers. The high tunnel has bows spaced 4 to 6 feet apart, depending on snow loads and wind factors.

The plastic that covers the high tunnel is generally 4 to 6 mil and ideally is anti-condensate to prevent condensation from dripping on the plants. Generally, plants are grown on raised beds covered with plastic, newspaper, or other materials that inhibit weeds, warm or cool the soil, and maintain moisture. Fruits, vegetables, flowers, and nursery crops are often grown in high tunnels to prevent plant freezing, to extend the cropping season, and to reduce pest problems. Drip or trickle irrigation is a must under a high tunnel.

Larry LouAllen, a fruit and vegetable producer in Moulton, Alabama, recently converted his tomato production from open field to high tunnels. During a presentation at a field day in Guntersville, Alabama, he stated that his goal is to yield 30 pounds of tomatoes per plant, which is five to ten pounds more per plant than traditional field production. What makes this increase more significant is that his crop entered the market in mid to late May resulting in premium crop prices of \$2.00 to \$2.80 per pound compared to a July crop from the field that would wholesale at \$1.00 per pound or less. LouAllen also estimates his 300 tomato plants grown in high tunnels will gross \$18,000 this year. Considering the cost of a basic high tunnel is about \$4,000, he has more than paid for his investment.

Plant Cropping

Relay cropping is the growing of two or more crops simultaneously during part of the life cycle of each crop. Basil could be planted for 30 days before interplanting tomatoes. As the basil matures and the plant is harvested, the tomatoes will take over the space without loss of yield from either crop. Tomatoes will also shade the basil to reduce heat related leaf damage. Relay cropping reduces the amount of production area needed and maximizes space in a high tunnel.

Intercropping is the production of different plants in the same row or alternating rows for some agronomic and cover crops. Intercropped vegetables should be companionable. Two large sun-loving crops will not be happy together, whereas, peppers grown in the spring with spinach will shade the spinach enough to keep it cool and maintain its quality. Intercropped companion plants should have the same nutrient and moisture requirements.

(continued on page 7)



The plastic that covers the high tunnel is generally 4 to 6 mil and ideally is anti-condensate to prevent condensation from dripping on the plants.



Relay cropping is the growing of two or more crops simultaneously during part of the life cycle of each crop. Basil could be planted for 30 days before interplanting tomatoes.



While the primary responsibility lies with the parents, schools have a unique opportunity to teach and model healthy eating and physical activity.

What are American Children Eating?

By Patricia Jones, Urban Regional Extension Agent

More than 60% of children and adolescents consume too much saturated fat and not enough fruits and vegetables. Children need plenty of fiber in their diets and dietary reports indicate that only 39% of children consume enough fiber that can be found in fruits, vegetables, whole grains, and legumes. In addition, 85% of adolescent females do not consume enough calcium. As milk consumption decreases, soft drink consumption increases. According to the United States Department of Agriculture, soft drink intake almost doubled among adolescent girls from six to eleven ounces.

The Consequences of Poor Eating Habits

Overweight children have a higher rate of type 2 diabetes, high blood lipid levels, high blood pressure, and bone and joint problems. These children are more likely to experience discrimination and suffer from low self-esteem. If children are overweight or obese, then chances are they will become obese adults. Because of the increasing rate of obesity, unhealthy eating habits, and physical inactivity, we may see the first generation that is less healthy and have shorter life expectancies than their parents.

While the primary responsibility lies with the parents, schools have a unique opportunity to teach and model healthy eating and physical activity. As a matter of fact, improving a child's health should improve school performance and raise annual test scores. The Child Nutrition and WIC Reauthorization Act of 2004 required all schools that participated in the National School Lunch Program to implement a wellness policy by 2006.

Parents may be unaware of the effects of their children being overweight or obese. Many times the problem starts in infancy. The Surgeon General recommends whole milk for infants and asks that parents transition to low-fat milk after their child turns two-years-old. Toddlers should begin eating like the rest of the family; three nutritional meals and two snacks daily. Children should be given 100% fruit juices. Parent must set an example by eating a variety of foods. Toddlers should not continue to be bottle fed, given large amounts of sweets, soft drinks, or sugar coated cereals. Find more nutritional information on the [American Dietetic Association website](#).

The Alabama Cooperative Extension System's Urban Affairs and New Non-traditional Programs Unit has developed systematic, research-based programs to teach parents and children good nutrition and health habits. These programs include:

- ***Parenting in Nontraditional and Underserved Urban Families***
- ***Urban Horticulture Initiatives***
- ***The Urban Expanded Food and Nutrition Education Program & the Urban Nutrition Education Program***
- ***Community Health, Aerobic, and Motivational Program Initiating Optimal Nutrition***



More than 60% of children and adolescents consume too much saturated fat and not enough fruits and vegetables.

For more program information, please contact Extension Assistant Director Dr. Jannie Carter at (256) 372-4943 or cartej1@aces.edu.

Innovative Horticulture Production Strategies

(continued from page 5)

Have you ever noticed that when you irrigate your lawn it is not nearly as effective as when it rains; somehow rain is more invigorating? No, it is not your imagination, there is actually a reason. Every time lightning strikes, nitrogen and hydrogen combine in the atmosphere to form ammonium nitrate. Then nitrogen mixes with atmospheric moisture and is washed to the ground as rainfall. About 250,000 tons of nitrogen are produced from lightning every day. Plants absorb this nitrogen and utilize it for growth, causing the *greening* of plants.

Rainwater collection is not new. Most of us can remember some sort of barrel or water collection container on the corner of the house. Barrels and tanks at the end of downspouts is still an excellent method of collecting water for gardens, toilet flushing and landscape plants. Commercial fruit and vegetable producers can also take advantage of rainwater, especially if you rely on community water, wells that have run dry in the past, or are growing crops under high tunnels or in greenhouses. Collecting rainwater is not about saving a lot of money, but it can reduce soil and nutrient erosion and field flooding. High tunnels and greenhouses can generate thousands of gallons of water during the production season. A 1,150 square foot high tunnel will slough over 650 gallons of water during a 1-inch rain. In most cases this runoff will cause erosion of the soil next to the high tunnel. It can also cause flooding inside the high tunnel, and it's a terrible waste of water that can be used on plants growing under the high tunnel. To collect rainwater efficiently you will need gutters, downspouts, collection tanks, plumbing supplies, and a small pump for drip irrigation.

Monocropping or growing only one crop can be very efficient. However, for the small fruit and vegetable producer it can be devastating when you try to market only one crop. Farmers' market booths are much more attractive with a wide array of produce. Consumers are much more likely to come to your farm if you have more than one crop to offer. If you sell to wholesalers, they will be much more likely to give you a better price if you have several items to offer.

Nontraditional or specialty crops are sometimes oddly shaped or colored, may be more difficult to grow, are foreign to where they are grown, or may just be grown out of season. They may be miniature or purple or sought after by gourmet cooks. But what they all have in common is that they command a higher price than their traditional counterparts. Some ethnic specialty items are tomatillos, jalapeno peppers, serrano peppers, shallots, and pasilla peppers. Miniature vegetables and heirlooms are still in demand, as well as specialty lettuce and greens. However, be cautious with heirloom crops, as they may be more fragile, have a shorter storage life, and be more difficult to grow.

It is important to watch the market. Consumers' tastes change rapidly and what sold well last year may sell poorly this year. A poor economy can affect demand, so choose specialty items that are popular with your customers or find new markets that cater to high-end buyers.



Rainwater collection is not new. Most of us can remember some sort of barrel or water collection container on the corner of the house.

Generation Y at Work

By Wendi Williams, Editor & Extension Communications Specialist

Perhaps like many of you, when I think of young adults today, I immediately think of hip-hop music and techno-savvy persons that zigzag through our streets with cell phones attached to their ears like ornaments hanging from a tree. Whatever your perception is of this generation, we owe it to ourselves to learn more about them if we are going to prepare for America's next workforce.

Generation Y, also called the Millennials, is the second largest population group since the Baby Boomers. Depending on who you ask, they are 75 to 80 million people strong. Born between 1978 and 2000, Generation Y has already begun to take their place in the work arena.

Unlike their predecessors the Baby Boomers or Generation X, the Millennials *expect* their work environment to reflect what they personally value. They work hard, but not beyond the typical 40-hour work week. They look for work they enjoy with opportunities for advancement. They love to work in teams and they despise drama. The Internet is where they live, and they are unafraid to explore new ideas or solutions even if it means seeking solutions halfway around the world.

In return, they *expect* access to the latest technology. Although they are dedicated workers and active community volunteers, they desire a work environment that is both fun and light hearted. Generation Y likes flexibility and is known to be impatient. Given their impatience, they want processes and services that expedite results. Surprisingly, you won't find them watching much television, but rather more absorbed in electronic games.

If you have the distinct pleasure of supervising Millennials, you will find they need structure and leadership that allows them the opportunity to see the big picture. They also need to be accepted and must have continual feedback on their work progress. However, make no mistake, they are ready to rule the world and have already demonstrated their political power in the last presidential campaign. As one of the most racially diverse and educated groups in history, (60% white, 18% Hispanic, 14% black, 5% Asian, and 3% other), Generation Y is going to be the next generation to watch.



Contributors

Maria Lenira Leite-Browning, PhD, Extension Animal Scientist

Jerry Chenault, Urban Regional Extension Agent, Lawrence County

Julio Correa, PhD, Extension Animal Scientist

Patricia Jones, Urban Regional Extension Agent, Tuscaloosa County

Cathy Sabota, PhD, Extension Horticulture Specialist, Alabama A&M University

Robert Spencer, Urban Regional Extension Specialist, Lauderdale County

Wendi Williams, Editor & Extension Communications Specialist, Alabama A&M University

Metro News Editorial Team - Alabama A&M University

Jannie Carter, PhD, Extension Assistant Director, Urban Affairs

Julio Correa, PhD, Associate Professor & Extension Animal Scientist

Jean Dwyer, MS, Extension Communications Specialist (Website Design)

Carol Parham, MS, Event Planner

Catherine Sabota, PhD, Professor & Extension Horticulturalist

Wendi Williams, MS, Editor & Extension Communications Specialist (Newsletter Design)



Alabama A&M and Auburn Universities

Please visit us online at www.aces.edu/urban/metronews. *The online HTML version of this publication contains a complete listing of article references.* For inquiries, please contact the editor at 256-372-4953 or williw1@aces.edu.

Published by the Alabama Cooperative Extension System (Alabama A&M and Auburn Universities) in cooperation with the U.S. Department of Agriculture. An Equal Opportunity Educator and Employer. All rights reserved.
