

A photograph of an ostrich in a field. The ostrich is the central focus, standing on a patch of dirt and sparse grass. It has a blue neck and a dark body. In the background, another ostrich is visible, and there is a fence and some trees. The text "Regal Ratites" is overlaid on the image in a white serif font.

Regal Ratites

Emus are an intriguing breed

Beginning in the 1930s, the emu was brought to the United States as an exotic zoo animal, but later found a home in the barnyards of producers across the country. Emu breeding took off in the United States in the late 1980s and became one of the fastest growing segments of alternative agriculture. Emus are no longer such an odd sight as the industry slowly builds consumer awareness mostly in two areas—as a low-fat red meat alternative and a cosmetic “wonder” oil.

When it comes to livestock, a person typically thinks of cattle, horses, sheep and other such animals, but there’s a whole market for alternative livestock available to small farmers interested in discovering a new niche. One such animal that has made a stir over the years is the odd looking bird from Down Under, the emu.

& marketing opportunity.

By Moira K. Wiley

Emus are the second largest member of the ratite family of flightless birds, which also includes the ostrich, rhea, kiwi and cassowary.

Larry Javorsky



BREED CHARACTERISTICS

Originating from Australia, emus are the second largest member of the ratite family of flightless birds, which also includes the ostrich, rhea, kiwi and cassowary. Emus have tiny wings and three toes. When born, they have soft, black-and-white striped feathers. As the birds mature into adulthood, feathers in various combinations of brown, black and tan replace the downy, striped chick feathers. A mature emu can reach five to six feet in height and weigh between 90 and 150 pounds.

The birds can begin laying eggs as early as 16 to 18 months of age, but normally laying begins at two to three years. Hens typically lay between 20 and 50 large, green eggs in a season spanning from October to April and can be productive for more than 20 years.

Emus tend to be curious and usually docile and non-aggressive toward people, especially if handled from birth. They can make very unique pets, as well as easy-to-handle livestock. However, watch anything shiny—like jewelry or painted toenails—since they enjoy pecking at such things. Though their pecking may be more playful than painful, their sharp, claw-like toenails can pose a safety threat to humans. Even the tamest emu can inadvertently injure an inexperienced handler if it feels cornered or gets agitated.

Breed Bender

The emu is a most unusual bird. It has wings, but can't fly. It's considered a big chicken, but the meat resembles and tastes like beef. The males grunt like a pig and both genders love to roll around in the mud. They have been known to pant like a dog and hiss like a cat. The animal can't seem to decide which species it is, but its uniqueness is definite. New laws governing the ratite industry, such as mandatory USDA inspection, have increased the validity of the industry. Although they are considered a long-term investment, emus don't require the large areas of land associated with many other types of livestock and due to the variety of marketable products, both small and large farms can successfully raise these big birds that found their way from the Outback to America.

RAISING A FLOCK

New producers might consider purchasing eggs to hatch and raise. While this is a less costly route than buying mature stock, it represents the greatest risk of mortality and will require sufficient time before the birds are produc-

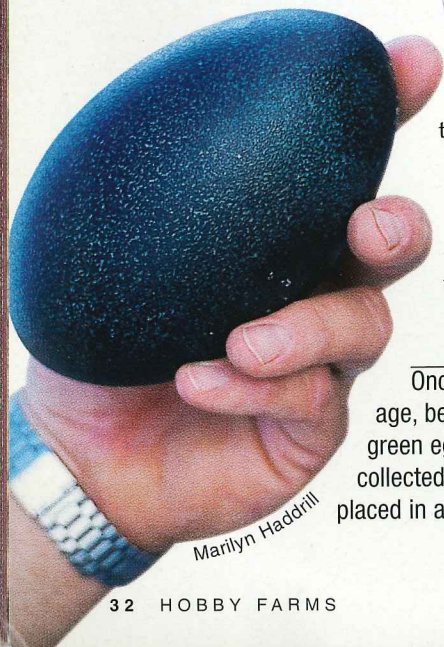
Once breeding pairs reach laying age, be on the lookout for the large, green eggs around the pen. Freshly collected eggs should be cleaned and placed in an incubator.

tive and of marketable age. Another option is to purchase chicks, which increases the cost, but lowers the risk of mortality, especially if purchased at three months of age or older; chicks six to 10 months old sell for \$400 to \$850 each, three- to six-months old sell for \$300 to \$375 each. By

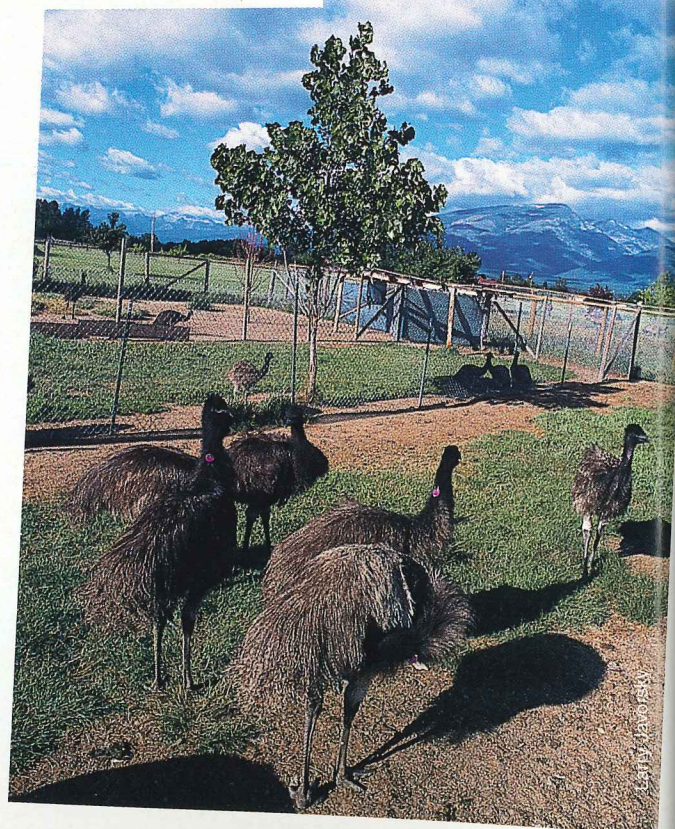
purchasing yearlings, start-up costs are increased even further, but the birds will be productive within two years; yearlings sell for \$500 to \$1,200 each. Those who want to begin production as quickly as possible should purchase proven breeding stock, however, this is the highest cost option; breeder pairs sell for \$2,000 to \$5,000.

Before bringing home new stock, suitable accommodations should be established. If eggs are purchased, incubation and hatching equipment must

Yearlings and breeding pairs will require an outdoor facility with appropriate fencing and shelters.



Marilyn Hadrill



already be in place. With older chicks, yearlings and mature birds, these items can be purchased later to decrease initial costs.

Chicks can be reared in a variety of confinements, but minimum requirements include a warm shelter that is sanitary and well ventilated. Also, access to an outside pen must be available for exercise to ensure overall health and prevent rotated legs. (Overcrowding is the single largest cause of death in chicks.) Chick pens should be restricted to 25 birds per pen with a widespread heat source so that they don't have to huddle to keep warm, which can cause suffocation.

Yearlings and breeding pairs will require an outdoor facility with appropriate fencing and shelters. A basic operation includes separate pens for breeding pairs and for growing chicks. Chicks are usually separated in pens based on size, not age. Shelters with adequate space, ventilation and heat should be provided, so birds can escape extreme winter weather and seek shade in the summer. Although they can't fly, emus can jump fairly high and they like to get into fence corners, hook their toes and roll over the top. Their jumping ability and fence walking requires fences to be built between five and six feet in height with all posts and fasteners attached on the outside of the pens. Industry standards indicate that two-inch by four-inch woven-wire or chain-link fencing is the best type of material to contain emus. Many established producers use these materials or no-climb horse fencing. It's never advisable to use chicken wire, as it is too easy for emus to get their feet tangled if they try to hook a foot and jump over.

Once breeding pairs reach laying age, producers should be on the lookout for those large, green eggs that many birds tend to leave lying around wherever they may land. By providing a nest either inside a shelter or in a shaded area, you can encourage females to lay their eggs in a specific



Jean Balzarini

New laws governing the ratite industry, such as mandatory USDA inspection, have increased the validity of the industry.

spot, but this does not always work.

When collecting eggs, producers may have to deal with the males, who are the nest sitters in the couple. Once a male finds a clutch of eggs to hatch, he will not generally move from that spot, even to eat or drink. Some producers opt to let the males hatch eggs, but chicks hatched in the "wild" may not be as tame as those hatched by the farmer. Plus, removing the eggs from the hens will stimulate continued egg laying, so it's best to try to retrieve eggs as they are laid.

Freshly collected eggs should be cleaned, placed in an incubator and turned on a regular schedule. Incubators are used to regulate temperature and humidity and provide good air circulation. Suggested optimal temperatures are between 96.5 to 97.5 degrees F with humidity ranging from 24 to 40 percent, depending on the equipment used and local environment.

The incubation period is usually 46 to 56 days, however the eggs are moved to a hatcher three to five days before they are expected to hatch. Hatchers are used to maintain temperature and humidity at constant levels after a slight lowering of the temperature by one or two degrees and an increase of five to 10 percent in humidity. Once chicks have hatched, they are given 24 hours to dry in the hatcher before being moved to a brooder box. (There are several incubators and hatchers available and you should research each type to learn which ones will best fit your needs.)

When it comes time to feed the growing chicks, you may want to utilize the expertise of feed companies or established producers to find the correct ratite feed. An important factor when

YIELD!

An average six-foot, 125-pound mature emu can produce up to:

- 40 pounds of meat
- 6 quarts of oil
- 8 square feet of leather
- A lot of feathers!



Maura K. Wiley

A serving of emu meat contains 164 calories and 4.7 grams of fat (Source: University of Wisconsin-Madison, June 2000, Alternative Meat Study funded by USDA).

choosing chick feed is to find one designed to achieve even growth without rapid weight gain, which can cause leg problems. Generally, chicks are fed a starter ration for three months then fed a grower ration until they reach market age. Breeding stock is usually kept on a breeding ration for six months of the year, and a maintenance ration for the other six months.

With regard to disease and health management, keep in mind that emus have a tendency to hide illness, and stress is one of the biggest threats in all stages of the bird's life. Chicks are most vulnerable to diseases and mortality from hatching until about three months of age. Sick chicks are frequently trampled or picked on by healthy chicks, so separation is usually a good choice. Besides stress, birds of all ages are susceptible to a number of ailments including stomach impaction, diarrhea, hardware disease, crooked neck and a number of common livestock diseases such as Eastern and Western Equine Encephalitis and Avian Influenza. Seeking medical advice from a veterinarian experienced in caring for emus is the best course of action.

STRIKING OIL

Considered the most valuable commodity, emu oil comes from a thick pad on the back of the bird—a natural protection against the extreme temperatures of its homeland. The oil has been used by Aborigines who relied on the “healing bird” to treat wounds, burns and skin ailments for thousands of years. Through testing and marketing, the oil now has diverse applications in cosmetics, soaps, lotions, shampoos and analgesics.

Ongoing studies at a number of university and medical laboratories around the country have shown emu oil to display anti-inflammatory properties and aid in carrying medications through the skin more quickly. By discovering all the potential elements in the oil, these scientists' findings may help further increase the demand for this commodity. Already, emu oil is proving to be a wonder for many health and beauty products that have found their way into health and natural-food stores, on the Internet and in direct-mail marketing campaigns.

When born, emus have soft, black-and-white striped feathers that will turn to various combinations of brown, black and tan as they mature.



Larry Javorsky



The Stock Yard/Stephanie Bishop

RAISING Emus

Basic operation requirements:

- Research first by visiting other farms and reading industry-related magazines and books.
- Land requirements are between $\frac{1}{4}$ to $\frac{1}{2}$ an acre per breeding pair.
- Separate pens are required for breeding and raising chicks.
- Fencing should be chain-link, woven-wire or no-climb mesh, however large wire mesh should be avoided and all pens should be five to six feet in height.
- Emu are fence walkers, so all posts and wire fasteners should be kept on the outside of pens to reduce the potential for injury.
- Emu require shelters with adequate space, ventilation, heat to escape extreme cold and shade in the summer.
- Incubating and hatching facilities should be designed to ensure a clean environment with consistent temperature, humidity and air exchange.

Emu oil has anti-inflammatory properties and aids in carrying medications through the skin more quickly.

EASY

Emus...

- Are a relatively simple animal to farm and manage.
- Adapt to almost any climatic condition.
- Have a low susceptibility to disease.
- Integrate well with other farming operations.
- Require very little ground space when compared to other livestock.
- Consume small amounts of feed (cost is approximately \$85 per year) resulting in higher revenue.

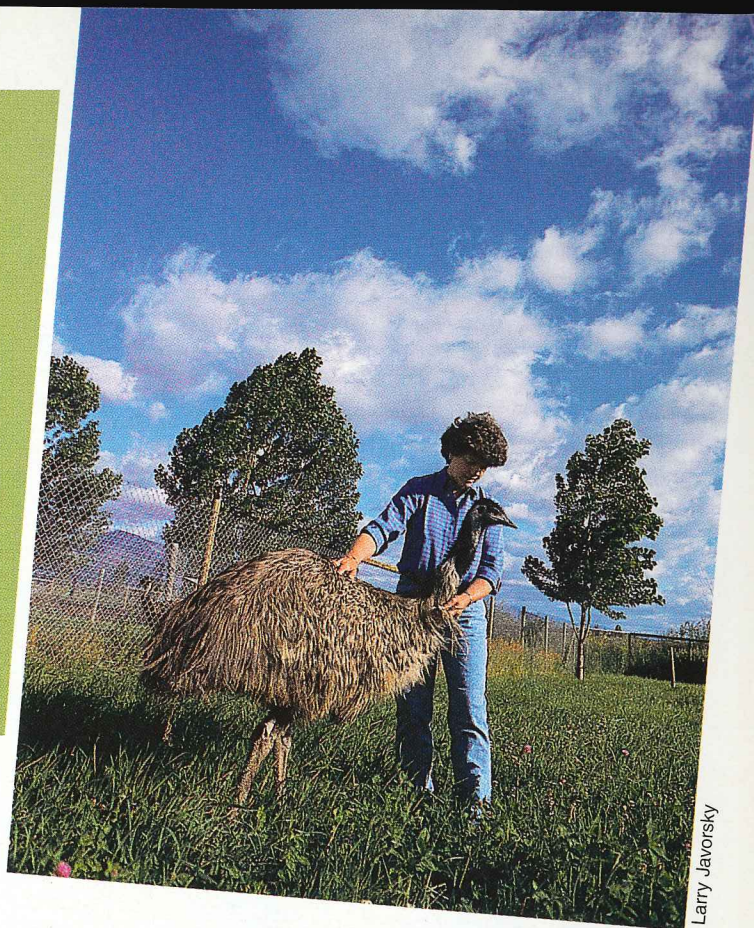
THE OTHER RED MEAT

Emus are unique in that they provide red meat when traditional farmyard birds, such as chickens and turkeys, provide white and dark meat choices, but definitely not red. Considered the second most valuable emu commodity, several studies have indicated that emu meat is higher in protein, has fewer calories and less sodium than most other red meat providing producers with a good marketing campaign. These studies include a two-year study by the University of Wisconsin-Madison that confirmed emu meat was lower in fat and higher in protein and other nutrients when compared with other popular alternatives such as bison, venison, elk and ostrich. Additional comparisons also found emu meat lower in fat than chicken, turkey, pork and beef.

Although it's classified as poultry, emu is similar in taste and texture to lean beef. However, the fat and cholesterol content of emu meat is comparable to poultry, and as a result, the American Heart Association recognizes emu meat as a healthy alternative. Following the American Heart Association's lead, some hospital dieticians recommend emu meat to heart patients who don't want to give up red meat in their diets. The meat is additive free (check packaging to be sure), and its nutritional profile has been featured by the American Dietetic Association. These endorsements have helped emu meat gain popularity among health-conscious Americans.

Like any new product, emu meat has met with a lot of skepticism and hasn't quite made it all the way to the common American table. However, producers trying to market their meat may not have to look any further than local health-food stores, grocery stores or gourmet restaurants. Value-added products like emu jerky and sausages have also become saleable items and lower end, tough cuts and trim can be sold for high-quality pet food. ■

Moirra K. Wiley lives in Stillwater, Okla., where she works as a freelance writer and editor. She is president of the Oklahoma Writers' Federation.



Larry Javorsky

Emus are curious, usually docile, and non-aggressive toward people, especially if handled from birth. They can make very unique pets, as well as easy-to-handle livestock.

FOR MORE Information

■ **American Emu Association**
P.O. Box 740814
Dallas, TX 75374-0814
(541) 332-0675
Fax (928) 962-9430
Email: info@aea-emu.org
www.aea-emu.org

■ **Emu Ranchers Inc.**
308 S. 1st St.
Conroe, TX 77301
(936) 788-5516

■ **Magazines**
Emu Today & Tomorrow
P.O. Box 7
Nardin, OK 74646-0007
(580) 628-2933
Fax (580) 628-2011
Email: emutoday@aol.com
www.emutoday.com

Emu's Zine (Online)
Myra Charleston, Editor
3040 Big Buck Road
Trezevant, TN 38258
www.emuszine.com

■ **Books**
Manual on Emu Farming,
1989, by Phillip & Marie
Minnaar (available on
www.amazon.com)
*Emu Farmer's Handbook
Volume 2: Commercial
Farming Methods for Emus,
Ostriches and Rheas*, 1998,
by Phillip & Marie Minnaar
(available on Amazon)
*Guide to Hatching and
Raising Emus Economically*,
by Janice Castleberry (avail-
able from the author at
Janice@triplecranchinc.com)