

# OSTRICH





# OSTRICH SPECIES

- ▶ The common ostrich (*Struthio camelus*), is a species of large flightless bird native to areas across Africa.
- ▶ It is one of two living species of ostriches and the only living members of the genus *Struthio* in the ratite order of birds.
- ▶ Common ostriches formerly occupied Africa north and south of the Sahara, East Africa, Africa south of the rainforest belt, and much of Asia Minor.
- ▶ Today common ostriches prefer open land and are native to the Savannas and Sahel of Africa, both north and south of the equatorial forest zone.
- ▶ In southwest Africa they inhabit the semi-desert or true desert.
- ▶ The ostrich's diet consists mainly of plant matter, though it also eats invertebrates.
- ▶ It lives in nomadic groups of 5 to 50 birds. Their natural lifespan is up to 40-45 years.





# OSTRICH PRODUCTS



- ▶ The common ostrich is farmed around the world, particularly for its feathers, which are decorative and are also used as feather dusters.
- ▶ Its skin is used for leather products and its lean meat is marketed commercially.
- ▶ Ostrich farming originated in South Africa in the 1860's.
- ▶ The Australian industry commenced in the mid 1870's and by the early 1900's there were several large farms throughout Australia.
- ▶ In 1914, following a worldwide slump, the ostrich virtually disappeared from Australian agriculture, but interest was revived in the late 1970's.





# OSTRICH FARMING

- ▶ Ostriches were first imported into Australia in 1868/69 when the Zoological Acclimatisation Society of Victoria acquired five immature birds from African. Of these, two were males and three were females.
- ▶ A South Australian pioneer pastoralist, T.R. Bowman first attempted to farm ostriches in the mid 1870's and by 1904 was running nearly 500 birds at Campbell House Station.
- ▶ In the late 1970's and early 80's several farmers became interested in the potential of farming ostriches.
- ▶ Procedures for farming and breeding were not well known and information was hard to find, thus flock numbers increased very slowly.
- ▶ In 1988, the Australian Ostrich Breeders Association was formed with members successfully breeding birds in New South Wales, Victoria, South Australia, Western Australia, Queensland and Tasmania.
- ▶ The most valuable product derived from ostriches was their leather, which was used in the production of ladies' shoes and bags. The feathers, meat and offal were also used.
- ▶ The good times did not last for long with much of Australia's ostrich industry put out of production by the end of the 1990s.
- ▶ Ostriches in Australia have established small feral populations.





# CHARACTERISTICS



- ▶ The ostrich is the largest living species of bird. Usually weighing from 63 to 145kg, or as much as two adult humans!
- ▶ Male ostriches can be 2.1 - 2.8m tall, females range from 1.7 - 2.0m tall.
- ▶ During the first year of life, chicks grow at about 25cm per month. At one year of age, ostriches weigh approximately 45 kilograms.
- ▶ The feathers of adult males are mostly black, with white primaries and a white tail. However, the tail of one subspecies is buff.
- ▶ Females and young males are greyish-brown and white. The head and neck of both male and female ostriches is nearly bare, with a thin layer of down.
- ▶ The skin of the female's neck and thighs is pinkish grey, while the male's is grey or pink dependent on subspecies.
- ▶ New chicks are fawn in colour, with dark brown spots.





# ALL THE BETTER TO SEE YOU WITH MY DEAR

- ▶ The long neck and legs keep their head up to 2.8m above the ground.
- ▶ Their eyes are said to be the largest of any land vertebrate: 50mm in diameter; helping them to see predators at a great distance.
- ▶ The eyes are shaded from sunlight from above.
- ▶ Their head and bill are relatively small for the birds' huge size, with the bill measuring 12 -14.3cm.







# BUILT FOR SPEED

- ▶ Ostrich skin varies in colour depending on the subspecies, with some having light or dark grey skin and others having pinkish or even reddish skin.
- ▶ The strong legs of the ostrich are unfeathered and show bare skin, with the tarsus (the lowest upright part of the leg) being covered in scales: red in the male, black in the female.
- ▶ The tarsus of the ostrich is the largest of any living bird, measuring 39 - 53cm.
- ▶ The bird has just two toes on each foot (most birds have four), with the nail on the larger, inner toe resembling a hoof.
- ▶ The outer toe has no nail. The reduced number of toes is an adaptation that appears to aid in running, which is useful for getting away from predators. Ostriches can run at a speed over 70 km/h and can cover 3 - 5m in a single stride.





# WARM WINGS

- ▶ The wings reach a span of about 2m, and the wing cord measurement of 90cm is around the same size as the largest flying birds.
- ▶ The feathers lack the tiny hooks that lock together the smooth external feathers of flying birds, and so are soft and fluffy and serve as insulation.
- ▶ Ostriches can tolerate a wide range of temperatures.
- ▶ In much of their habitat, temperatures vary as much as 40°C between night and day.
- ▶ Their temperature control relies in part on behavioural thermoregulation. For example, they use their wings to cover the naked skin of the upper legs and flanks to conserve heat, or leave these areas bare to release heat.





# SOME INTERESTING FACTS

- ▶ When threatened, the ostrich will either hide itself by lying flat against the ground or run away.
- ▶ If cornered, it can attack with a kick of its powerful legs.
- ▶ Mating patterns differ by geographical region, but territorial males fight for a harem of two to seven females.
- ▶ The wings also function as stabilizers to give better manoeuvrability when running. Observations have shown that the wings are actively involved in rapid braking, turning and zigzag manoeuvres.





# OSTRICH EGGS

- ▶ The dominant female lays her eggs first, and when it is time to cover them for incubation, she discards extra eggs from the weaker females, leaving about 20 in most cases.
- ▶ A female ostrich can distinguish her own eggs from the others in a communal nest.
- ▶ Ostrich eggs are the largest of all eggs, though they are the smallest eggs relative to the size of the adult bird.
- ▶ On average they are 15 cm long, 13 cm wide, and weigh 1.4 kilograms. Over 20 times the weight of a chicken egg.
- ▶ They are glossy cream-colored, with thick shells marked by small pits.



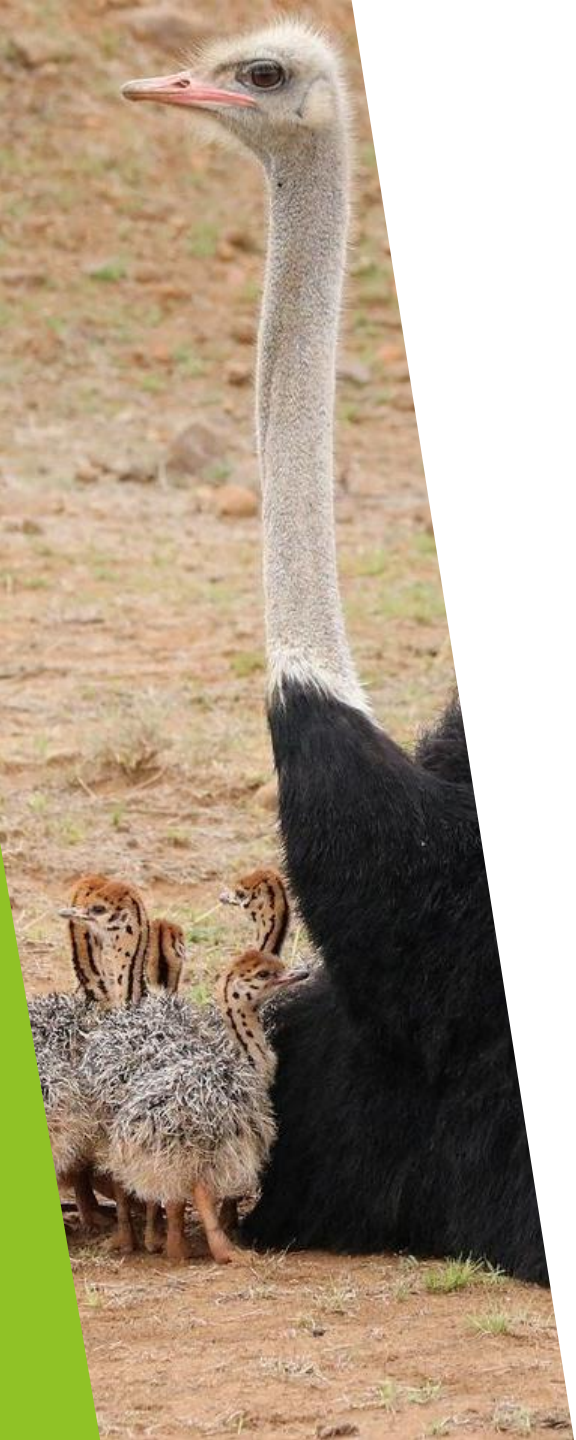


# OSTRICH NEST

- ▶ The female ostrich lays her fertilized eggs in a single communal nest, a simple pit, 30 to 60 cm deep and 3 m wide, scraped in the ground by the male.
- ▶ The eggs are incubated by the females during the day and by the males at night. This uses their different feather colours to protect the nest.
- ▶ The dull female blends in with the sand, while the black male is nearly undetectable at night.
- ▶ The incubation period is 35 to 45 days, which is rather short compared to other ratites. This is believed to be due to the high rate of predation.







# NATURAL PREDATORS

- ▶ Being a flightless species in the African savanna, the common ostrich faces a variety of predators throughout its life cycle.
- ▶ Animals that prey on ostriches of all ages may include cheetahs, lions, leopards, African hunting dogs and spotted hyenas.
- ▶ Ostriches can often outrun most of their predators in a pursuit, so most predators will try to ambush an unsuspecting bird using obstructing vegetation or other objects.
- ▶ A notable exception is the cheetah, which is the most prolific predator of adult common ostriches due to its own great running speeds.
- ▶ Predators of nests and young ostriches include jackals, various birds of prey, warthogs, mongoose and Egyptian vultures.
- ▶ Egyptian vultures have been known to hurl stones at ostrich eggs to crack them open so they can eat their contents.
- ▶ If the nest or young are threatened, either or both parents may create a distraction, faking injury. However, they may sometimes fiercely fight predators, especially when chicks are being defended, and have been capable of killing even lions in such confrontations.







# AGAINST THE ODDS

- ▶ Typically, the male defends the hatchlings and teaches them to feed.
- ▶ Although males and females cooperate in rearing chicks, fewer than 10% of nests survive the 9-week period of laying and incubation.
- ▶ Of the surviving chicks, only 15% of those survive to 1 year of age.
- ▶ However, among those ostriches who survive to adulthood, the species is one of the longest-living bird species.
- ▶ Ostriches in captivity have lived to 62 years and 7 months.



# HEALTH CARE, PESTS & DISEASES



- ▶ Animal health, welfare and biosecurity are all important stages of the livestock production chain. If managed poorly each can have adverse impacts on productivity.
- ▶ Biosecurity programs for farming industries are designed to prevent the spread of infectious disease and contain disease outbreaks when they occur.
- ▶ Parasites and disease impact on all animals, including Alpacas. Animals affected by disease may not always show obvious clinical signs.
- ▶ Biosecurity is important at the national, regional and property level.
- ▶ Producers are governed by Australian Animal Welfare Standards and Guidelines. State and territory governments are responsible for animal welfare laws and their enforcement. These are enforced through animal welfare or prevention of cruelty to animals' legislation.





# RISKS & CHALLENGES

- ▶ Like any primary production enterprise there are risks associated with commercial production of Ostrich products. Some will be outside of a producer's control however experienced producers are usually able to manage these risks.
- ▶ Risks include the loss of vital export markets. The COVID-19 outbreak had a massive impact on a lot of our export markets.
- ▶ Disease and pests, it is extremely important that we maintain Australia's freedom from major diseases through strict quarantine laws and procedures.
- ▶ Here in Australia weather events such as drought, fires and flooding take a huge toll on our farming communities. They really need our support.



# POP QUIZ

- ▶ The first Ostrich farm was reported to have started in \_\_\_\_\_
- ▶ Ostrich natural lifespan is \_\_\_\_\_
- ▶ Ostrich's are native into Australia TRUE/FALSE
- ▶ The mother Emu raises the chicks by herself TRUE/FALSE
- ▶ Ostriches have the largest \_\_\_\_\_ of any vertebra. They are \_\_\_\_\_
- ▶ Ostrich egg incubation takes \_\_\_\_\_
- ▶ Ostrich's can run up to \_\_\_\_\_
- ▶ Ostrich's can fly over long distances TRUE/FALSE
- ▶ Ostrich can grow to \_\_\_\_\_ tall and weigh up to \_\_\_\_\_



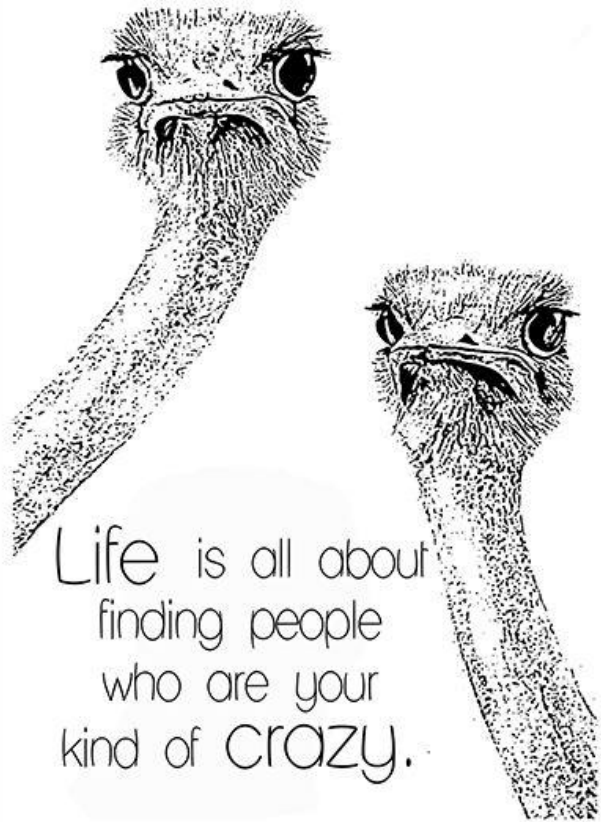




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## RESOURCE

Wikipedia

<http://livestocklibrary.com.au>