THE OSTRICH IS A BIRD OF AFRICA and its true home is in South Africa’s Klein Karoo region. Large flocks of ostriches have roamed the plains of the Southern Cape for centuries. It is here in the Klein Karoo where the majority of ostrich activities are still concentrated. Since the onset of ostrich farming in 1864, South Africa is still the leader in the ostrich industry and has a 70% global market share. South Africa’s leadership role is due to its ideal climate, vast experience and expertise of all role players, as well as the high quality and continuous investment in research.

This arid, sunny area on the most southern tip of Africa is also home to Klein Karoo International Ltd (KKI), the world’s foremost producer of ostrich related products, supplying some 65% of all ostrich meat, leather and feathers found on international markets.
The Klein Karoo Co-operative was founded in 1945 in the town of Oudtshoorn, although local farmers already began domesticating ostriches in the region over 130 years ago. Since then ostriches have been bred for optimum production of quality meat, leather and feathers and it is this commitment to quality that is recognised by consumers of our products worldwide. Subsequently the KLEIN KAROO brand name has become synonymous with the best the exotic ostrich has to offer.

Klein Karoo International Ltd has approximately 1,100 members, of which over 500 supply birds to the company. These ostrich farmers are leaders in their field. Under the auspices of Klein Karoo International, they practise scientific farming management programmes, monitored by KKI, the Directorates of Animal Health, and Veterinary Public Health. These monitoring programmes ensure that each bird remains healthy right up to the slaughter date, producing meat of the highest quality.

Klein Karoo International Ltd is committed to adhere to all international standards in relation to farming practices, processing, export requirements, biodiversity management, bio-security, and the humane treatment of ostriches, as prescribed by the industry’s code of conduct.

www.kleinkaroo.com
PRODUCTION OF OSTRICHES
Klein Karoo International’s ostriches are raised to a live mass of about 90 kg in natural surroundings according to free range principles on privately owned farms mainly in the Klein Karoo region. The producers are responsible farmers and aim to raise the birds in the most acceptable way according to international legislation as required by export countries.

NUTRITION OF OSTRICHES
Ostriches are fed on pastures such as alfalfa, wheat and alfalfa hay produced by the farmers. The birds on pastures receive additional energy and protein supplements to ensure a balanced ration. This will include energy sources such as maize, barley, oats; protein sources such as soya and canola; and roughage sources such as alfalfa and bran. Vitamins and minerals are also added. No animal protein sources are used and no growth stimulants are administered. The meat is free of any systematically administered antibiotics. Klein Karoo International partakes in a rigorous residue (growth stimulants and other chemicals) monitoring program on all meat.

PROCESSING OF OSTRICH MEAT
The birds are transported live to either one of the three Klein Karoo International ostrich abattoirs (ZA92, ZA118, ZA8), held in a holding pen and are slaughtered under humane and Halaal conditions. The carcasses are then de-boned. The utilisable meat, mainly emanating from the legs, is prepared as various primal cuts and meat is being portioned into final products. The whole muscles (primal cuts) are portioned according to clients’ specific requirements. These products are all vacuum packed, labelled, boxed and kept in cold storage until dispatched.
PACKAGING AND STORAGE OF MEAT
Portioned meat is vacuum packed on multivac machines with clear lidding (65 - 80 µm) and base (150 µm) plastics. Primal cuts are vacuum packed in plastic bags of 70-80 µm. The products are boxed in specially designed 10 kg boxes and stored either as fresh meat (0 - 4 ºC) or as frozen meat (<-18 ºC) destined for export markets. The meat is exported fresh as well as frozen to accommodate both-in-and-out-of-season demand.

Bulk Packaging: Each carton is check-weighed, labelled and strapped. Full control and traceability of the products is maintained throughout each part of the process.

Retail packaging: Automatic weight control of packs take place to select and combine portions to achieve fixed weight and/or fixed number of pieces.

SHELF-LIFE
The selling date of various ostrich products is derived from shelf-life studies conducted in Klein Karoo International’s research laboratory. Products are tested over a period of time to ensure that sensory (taste, appearance and smell) and microbiological (food safety) values comply with the quality criteria of the consumer.
Shelf-life (from date of production) for portioned chilled meat is 28 and 42 days for bulk packed chilled meat (both stored continuously at 0 - 4 ºC).
Shelf-life (from date of production) for frozen meat is three years stored continuously at or below -18 ºC.
1. Receive ostriches at Klein Karoo International's abattoir

1.2. Verify farm information
    - Reject
    - Accept
    - Return to farm

**Slaughtering**
1. Slaughter by producer line.
2. Write line letter and sequential number on thigh skin.
3. Allocate lot number.
4. Allocate serial number to each bird. Apply label to skin.
5. Process lot down line as a unit.
6. Apply carcass label after skinning. Leave label on skin.

**Primal meat inspection**
1. Apply ZA92 stamp.
2. Indicate whether other part of the carcass were condemned.

**Chilling**
1. Tag last carcass of each lot going into chiller.
2. Chill to below 4 °C.
3. Keep carcasses from one lot together in chiller.

**Quarter, De-bone, Portion, Pack**
1. Quarter, de-bone & pack carcasses/meat per lot.
2. Pack meat per client request.
3. Label bags with lot number.

**Cartonning**
1. Pack bags in sleeves and cartons.
2. Generate box serial numbers.
3. Apply labels to cartons.
4. Serial numbers scanned in.

**Dispatch**
1. Scan pallets or boxes out.
2. Verify health requirements, issue health certificate.
3. Issue movement permit.
4. Seal vehicle.

**Vacuum & Multivac Packing of Meat**
1. Vacuum bags and roll stock received from packing stores with batch traceability.
2. Indicate traceability information on daily HACCP sheets.

**Cartonning of Bulk & Retail Vacuum Packaged Meat**
1. Retail and bulk cartons and sleeves received from stores.
2. Indicate traceability information on daily HACCP sheets.
FOOD SAFETY & TRACEABILITY
Klein Karoo International has three abattoirs (ZA92, ZA118, ZA8) which are
used exclusively for the slaughtering of ostriches. These abattoirs have been
designed to comply with the very stringent hygiene controls stipulated by
importing countries in Europe and elsewhere.

At Klein Karoo International, food safety is non-negotiable. By applying a
quality management system which focuses specifically on food safety it is
possible to produce high quality meat products on a continuous basis.
The producer raising ostriches is the first link in the quality control system. KKI
continues with this control process in the slaughter, processing, marketing
and selling of meat. Monitoring takes place in such an in-depth and stringent
manner that it is possible for the end-consumer to trace the succulent ostrich
meat on his or her plate back to the farm of origin.

KKI's food safety system monitors not only meat products, but also the manu-
facturing process as a whole at various levels. A series of tests and analyses are
carried out daily. This system consists of a process flow that monitors critical
points (HACCP). Everything is documented for reference and adjustment
purposes. Thereafter it is reviewed by independent internal and external
auditors to ensure that the process is transparent and executed correctly.
Klein Karoo International has a resident ostrich specialist veterinarian. At
KKI's fully equipped laboratory an expert team of microbiologists and food
technologists set the benchmark for traceability and food safety. To maintain
high standards, KKI is also committed to continuous investment in research.

Audits are carried out by independent bodies such as the Department of
Agriculture: Veterinary Services, the European Union's food safety teams and
the accredited certifying organisations such as the SABS and SGS. KKI is also
measured against international chain group standards such as the British
Retail Consortium (BRC) and the International Food Standards (IFS).

To ensure that the KKI food safety philosophy is communicated to all groups
within the organisation, supervisors and workers who are in direct contact
with the product receive ongoing training in safe handling of food products.
Consumers can therefore be sure that the route from the farm to the fork
remains entirely safe.
CHARACTERISTICS OF OSTRICH MEAT
The growing trend towards a healthier lifestyle has led to an increase in the popularity of South African ostrich meat. In today’s health conscious world ostrich meat has become part of a balanced diet and allows the meat lover the pleasure of a scrumptious steak or fillet in the full knowledge that it is, in fact, a great choice. The character and versatility of ostrich meat makes it the ideal choice for home cooks and chefs when preparing light meals and great tasting nutritious dinners.

- Low in fat – Only 1.4 g per 100 g meat
- Rich in protein – A high 22 g per 100 g meat
- Lower in cholesterol than other red meats – Only 60 mg per 100 g meat
- Low in collagen – Most digestible red meat
- A good source of biologically available iron – 3.2 mg per 100 g meat
- Kilojoules – Approximately 377 kJ per 100 g meat
- KLEIN KAROO ostrich meat is free of hormones and growth stimulants.

Ostrich meat is the best choice for the weight conscious consumer because it is low in fat and lower in cholesterol than other red meats. This, as well as the iron content of ostrich meat, will greatly benefit people with an active lifestyle. The fact that the iron is biologically available also makes ostrich an ideal protein source for anaemic people. Ostrich meat will contribute to a healthy lifestyle without compromising on taste.

NUTRITIONAL VALUE OF OSTRICH MEAT
The nutritional values for primal cuts and portioned meat (table above) were determined through analyses of the products based on the latest results.

* Please note that the typical nutritional information of different cuts may vary.

ALLERGENS
Ostrich meat does not inherently carry any known allergens.
Klein Karoo International Ltd offers a wide variety of ostrich meat and ostrich by-products that include:

- A RANGE OF BULK VACUUM PACKED OSTRICH MEAT CUTS
- RETAIL VACUUM PACK RANGES
- VIENNAS AND RUSSIAN SAUSAGES
- INDIVIDUALLY QUICK FROZEN (IQF) OSTRICH MEAT RANGE
- OSTRICH AND OSTRICH LIVER PÂTÉ
- PETFOOD
- OSTRICH OIL
- CARCASS MEAL
BULK VACUUM PACK RANGE

KKI’s range of bulk vacuum packed ostrich meat primal cuts includes:

- **Fan Fillet**
- **Small Fillet**: Tornado Fillet, Eye Fillet, Tenderloin, Oyster Fillet and Long Fillet
- **Small Steak**: Small Drum, Tender Steak, Minute Steak One, Minute Steak Two and Small Steak
- **Steak**: Rump Steak, Big Drum, Moon Steak, Flat Drum, Drum Steak and Triangle Steak
- **Sauté**: Fillet and Steak Cubes
- **Goulash**: Mixed Cubes
- **Trimmings**
- **Geschnetzeltes**
- **Stroganoff**
- **Roast Fillet and Roast Steak**

**Packaging**: Individually vacuum sealed portions and bulk packed (2.5 kg).
Weber Small Fillet
- Long Fillet 500 g
- Small Drum 300 g
- Tornado Fillet 250 g
- Eye Fillet 450 g
- Tenderloin 500 g
- Oyster Fillet 300 g
- Small Steak 200 g

Weber Small Steak
- Rump Steak 1.2 kg
- Big Drum 1 kg
- Moon Steak 750 g
- Flat Drum 650 g
- Drum Steak 500 g
- Triangle Steak 400 g

Weber Small Steak
- Fillet & Steak Cubes 30 - 60 g
- Mixed Cubes 30 - 60 g

Weber Small Steak
- Mixed Strips 60/80 x 10mm
- Thin Slices 20 x 20 x 3 mm
- Carcass Trim

* Please note: The weight specified above indicates the approximate weight per muscle.
OSTRICH RETAIL RANGE

Above: Some examples of packaging in our retail range.
VIENNAS AND RUSSIAN SAUSAGES
Klein Karoo International Ltd makes high quality, ready-to-eat Russian and Vienna sausages that are free of MSG and high in protein. These Russians and Viennas are made of 100% pure ostrich meat (free of offal and mechanically deboned meat) and vacuum packed in 500 g packs.
IQF OSTRICH MEAT RANGE

INDIVIDUALLY QUICK FROZEN (IQF) OSTRICH MEAT RANGE

- Ostrich Fillet 125 g. Cooked. IQF. Cartons of 5 kg
- Ostrich Steak 125 g. Cooked. IQF. Cartons of 5 kg
- Ostrich Strips (10 x 10 x 40 mm per strip). Cooked. IQF. Cartons of 5 kg
- Ostrich Cubes (10 x 20 x 20 mm per cube). Cooked. IQF. Cartons of 5 kg

IQF Capacities
The capacity of the plant is currently two containers per month (30 tons).
The reaction time: two weeks for the production of a container, three weeks shipping to Europe.

IQF ostrich meat is ideal for the food service sector!
OSTRICH LIVER PÂTÉ

OSTRICH LIVER PÂTÉ WITH GREEN PEPPER CORN

Ingredients: Ostrich Liver (42%), Vegetable Oil, Water, Isolated Vegetable Proteins, Herbs and Spices, Flavourings, Curing Agent, Sodium Nitrate. No preservatives.

Packaging: 110 g can
Also available in KKI’s pâté range: Ostrich Pâté, Springbok Pâté, Kudu Pâté.

Plant Registration: ZA151
Abattoir: ZA92, ZA14, ZA18
OSTRICH PET FOOD RANGE

DOG TREATS
Great variety of 100% natural ostrich dog treats.
Ostrich dog treats are made of ostrich by-products in the export approved abattoir of Klein Karoo International Ltd.
Ostrich dog treats are low in fat, low in cholesterol, low in sodium and high in protein.
Ostrich pet treats are suitable of all dogs, big and small.
These products are sold on a natural fall basis.

Dried Ostrich Sinew Twisters >
Nutritional analysis (g/100g):
Protein – 98.2; Fat – 0.7; Moisture – 11.2;
Crude Fibre – 0.5; Ash – 0.6
Ingredients: Plated ostrich flat sinews.

Dried Ostrich Stomach >
Nutritional analysis (g/100g):
Protein – 87.7; Fat – 7.2; Ash – 3.6;
Moisture – 4.5; Crude Fibre – 3.2.
Ingredients: Ostrich oesophagus.

< Dried Ostrich Pet Biltong
Nutritional analysis (g/100g):
Protein – 64.3; Fat – 5.2; Ash – 8;
Moisture – 18.8; Crude Fibre – n/a;
Ingredients: Ostrich meaty off-cuts.

Dried Ostrich Mini Burger Patties >
Nutritional analysis (g/100g):
Protein – 35.25; Fat – 6.1; Ash – 5.57;
Moisture – 14.27; Crude Fibre – 1.87;
Ingredients: Meat patties are produced from ostrich trimmings, stomach skin, maize meal and water.

< Dried Ostrich Heart Pieces
Nutritional analysis (g/100g):
Protein – 73.7; Fat – 7.7; Ash – 5.7;
Moisture – 12.4; Crude Fibre – 0.6;
Ingredients: Ostrich hearts.

Dried Ostrich Stone Stomach >
Nutritional analysis (g/100g):
Protein – 76; Fat – 4.1; Ash – 7;
Moisture – 5.5; Crude Fibre – 1.2;
Ingredients: Ostrich stomach.

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Nutritional analysis (g/100g):
Protein – 76; Fat – 4.1; Ash – 7;
Moisture – 5.5; Crude Fibre – 1.2;
Ingredients: Ostrich stomach.
Dried Ostrich Sausage
Nutritional analysis (g/100g):
Protein – 35.25; Fat – 6.1;
Crude Fibre – 1.87; Ash – 5.57
Moisture – 14.27; Ingredients:
Minced ostrich trimmings, stomach skin, maize meal, water and synthetic casings.

Dried Ostrich Windpipes
Nutritional analysis (g/100g):
Protein – 70.1; Fat – 7; Moisture – 8.5;
Crude Fibre – n/a; Ash – 7.2
Ingredients: Ostrich windpipes

Dried Ostrich Sinew Trimmings
Nutritional analysis (g/100g):
Protein – 82.3; Fat – 12; Ash – 2.2;
Moisture – 7; Crude Fibre – n/a;
Ingredients: Ostrich Pros B.

Dried Ostrich Flat Sinews
Nutritional analysis (g/100g):
Protein – 95.6; Fat – 5; Moisture – 8;
Crude Fibre – n/a; Ash – 1.7
Ingredients: Ostrich flat sinews

Dried Ostrich Neck Pieces
Nutritional analysis (g/100g):
Protein – 65.8; Fat – 4.8; Ash – 26.2;
Moisture – 5.4; Crude Fibre – 2.2;
Ingredients: Ostrich Neck Pieces.

Dried Ostrich Long Sinews
Nutritional analysis (g/100g):
Protein – 94.5;
Fat – 2.3; Moisture – 9.4;
Crude Fibre – n/a;
Ash – 2.0. Ingredients:
Ostrich long sinews

Dried Ostrich Knee Sinews
Nutritional analysis (g/100g):
Protein – 81.4; Fat – 5; Ash – 8.1;
Moisture – 6.2; Crude Fibre – n/a;
Ingredients: Ostrich knee sinews

Dried Ostrich Hip Bones
Ingredients: Ostrich bones. (< 300 g)

Dried Ostrich Oesophagus
Nutritional analysis (g/100g):
Protein – 92.2; Moisture – 12.9;
Crude Fibre – n/a; Ash – 2.2
Ingredients: Ostrich oesophagus.
OSTRICH OIL
Export category 3 ostrich oil is yellowish in colour and produced from ostrich fat and by-products treated with an anti-oxidant. The oil has no rancid smell. The fatty acid profile of ostrich oil shows a high content of Omega 3, 6 and 9.
Ingredients: Ostrich oil, treated with an anti-oxidant.

Ostrich Oil Plant Registration: ZA14/19
Abattoirs: ZA92, ZA8, ZA118.

CARCASS MEAL
Ostrich meat-and-bone meal is produced from ostrich by-products which originated from an export approved slaughter house. Meal is dark brown and finely ground. It is used as an ingredient in pet food.
Ingredients: Category 3 ostrich by-products, anti-oxidant and a salmonella inhibitor.
Packaging: 50 kg woven polypropylene bags (930 x 620 cm)

NUTRITIONAL INFORMATION AND OTHER CHEMICAL STANDARDS

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<th>Analytical criteria</th>
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NUTRITIONAL ANALYSIS

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Carcass Meal Plant Registration: ZA14/19
Abattoirs: ZA92, ZA8, ZA118.
Meat products are distributed in refrigerated road transport vehicles or sea freight containers. Temperature is maintained at -18°C for frozen export containerization and at 0-4°C for chilled products. Thermo recorders are packed with consignments. Trucks are standard equipped with their own recorders to ensure that the temperature is maintained to the final destination.

Chilled meat intended for export is dispatched by road in refrigerated road transport vehicles to the airport in Johannesburg (O.R. Tambo International) from where it is air freighted to the European Union and other markets. Frozen meat intended for export is containerized on site, dispatched by road transport vehicles to the Cape Town harbour and shipped to various markets.

HOW TO PREPARE OSTRICH MEAT

Open the vacuum-sealed ostrich meat packet and leave to stand for five minutes. Separate individual portions. Lightly baste with olive oil. Heat a heavy-base or griddle pan until very hot. If you are having a barbeque, the coals should be very hot. Place the fillets or steaks in the pan or on the grid and seal both sides. Turn meat twice on each side until done as preferred. Use tongs for turning, not a fork, to prevent loss of meat juices. Once the meat is sealed, sprinkle with seasoning. Remove from heat. Again baste lightly with olive oil. Cover and leave to rest for five minutes before serving.
KLEIN KAROO INTERNATIONAL LTD is the world’s largest producer of ostrich meat products.

www.kleinkaroo.com

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