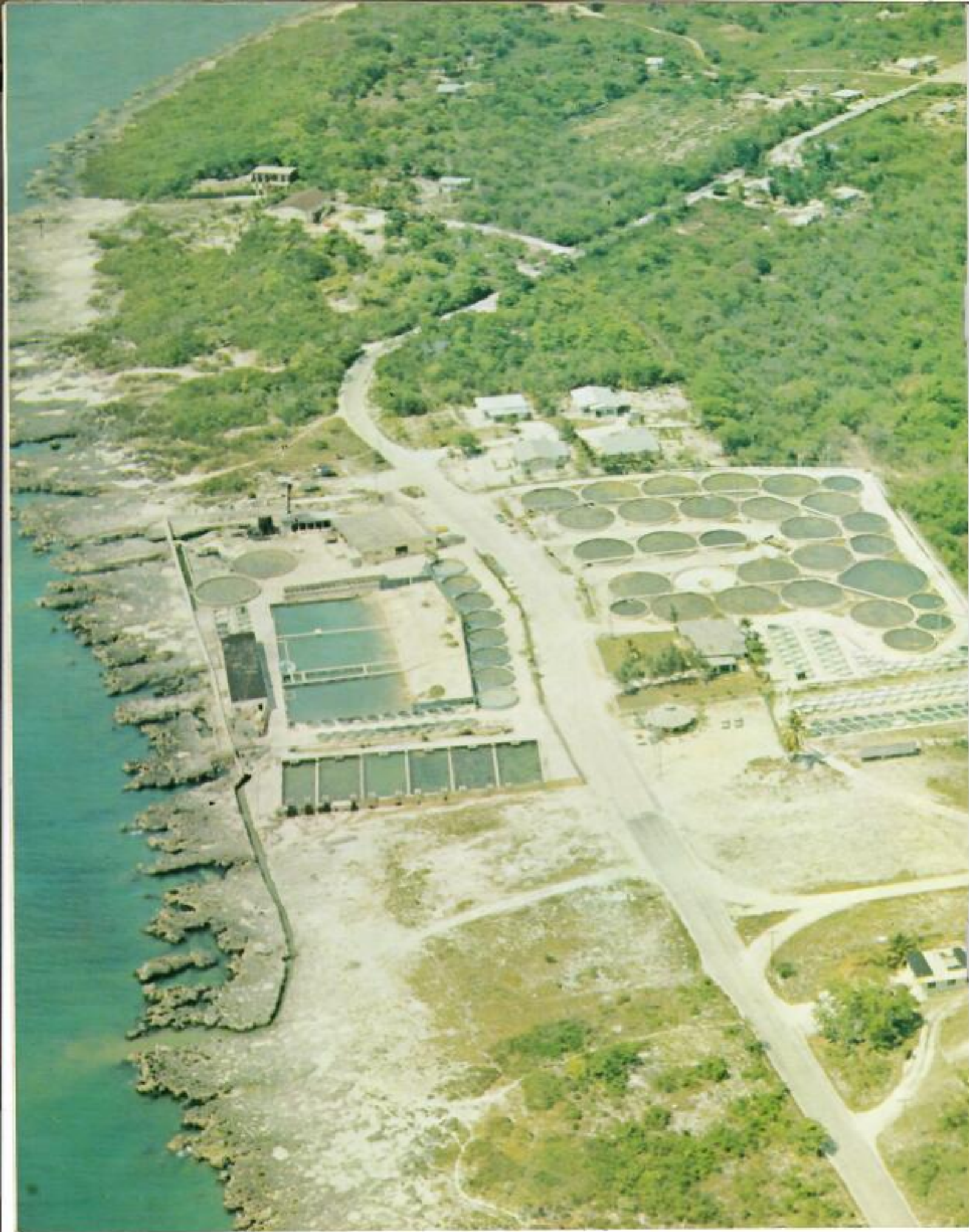


Cayman Turtle Farm Souvenir Guide



Cayman Turtle



welcome to Cayman Turtle Farm

We suggest you read the following brief section before beginning your tour.

Green turtle farming on Grand Cayman started in 1968 with a small prototype farm at Salt Creek. In 1970 when the turtle population had reached 30,000 it was decided to move the farm to the present site at Goat Rock. Continued expansion has been necessary to accommodate the current turtle population of around 70,000.

Cayman Turtle Farm Ltd. is still heavily dependent on research. It is a new and unique operation. There is no text book on turtle farming so we have had to try to find all the answers.

We are now involved in continued research which is leading to more efficient means of turtle husbandry and equally important, a fuller understanding of the green turtles' life cycle. Of particular importance is a complete understanding of its reproductive habits. Considerable progress has also already been made in other areas such as nutrition and disease control.

Our aim is to become entirely self sufficient in terms of replacement turtles and, of course, to become an efficient commercial operation. Considerable progress has been made towards establishing self-sufficiency in eggs and we are now gathering the knowledge to achieve this. In conjunction with this, we work closely

along the lines set down by the International Union for the Conservation of Nature as applied to turtle farming - our way of fighting illegal slaughter and poaching of wild turtles is to provide an alternative legal source of consistently high quality products.

The owners of Cayman Turtle Farm Ltd intend to develop green turtle farming based on the concept that the world's food supplies would ultimately have to be supplemented from the sources of the sea. Considering that 70 p.c. of the earth's surface is covered by water, the interest now being shown in aquaculture is surely long overdue.



Now you should begin your tour entering through the Farm Tour Entrance and following the route as suggested on the Turtleland map.

All areas shaded in white on the diagrammatic map of Turtleland denote areas where you may walk.

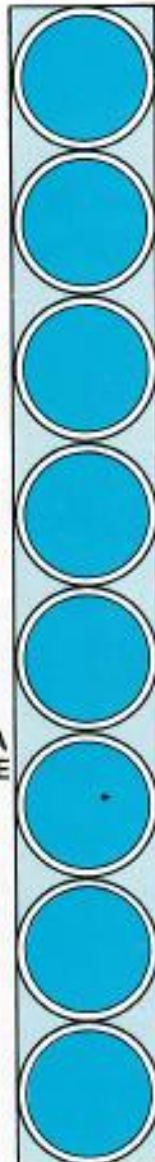
Each area of tanks has been allotted a number and explanatory notes for each numbered area are included in this brochure.



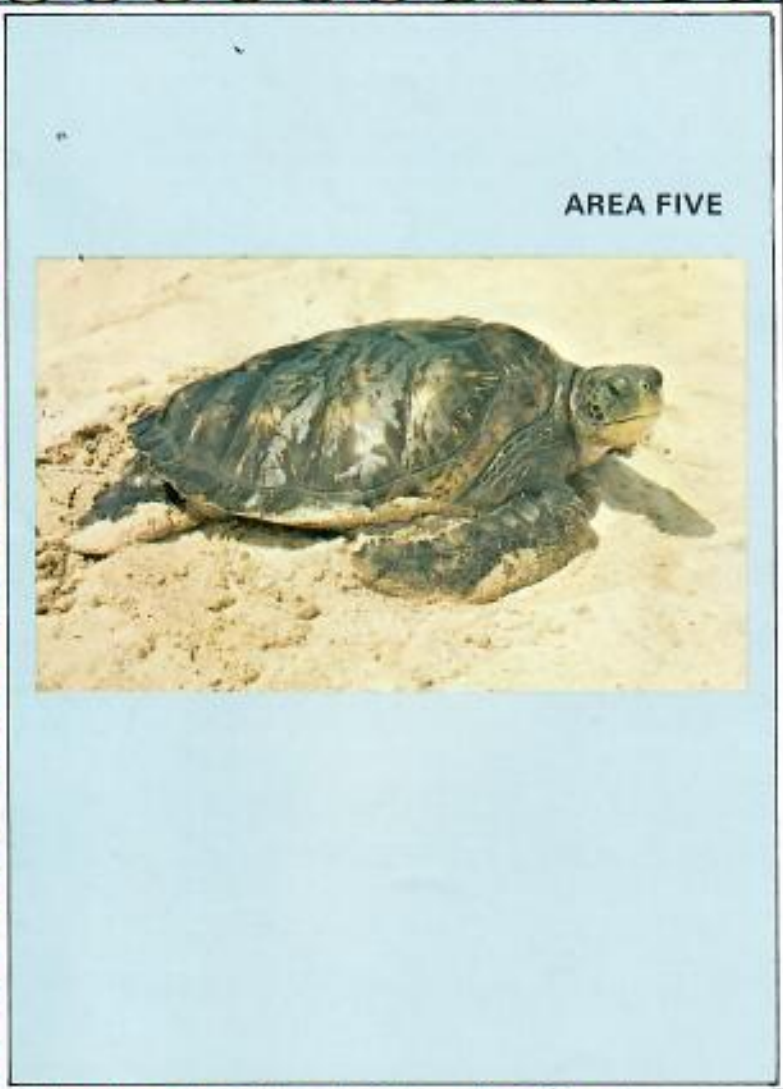
AREA SEVEN



AREA SIX



AREA ONE



AREA FIVE



AREA TWO



AREA FOUR



AREA THREE

ENTRANCE



Area One

This will be the first group of tanks you see as you enter the Farm. These 8 tanks normally hold turtles between the ages of 6 and 18 months and each tank is capable of holding (depending on size) between one and five thousand turtles. Sea water is continuously pumped through all tanks on the Farm thus ensuring maximum cleanliness and minimum risk of infection. The water is pumped in from the sea at the one end of the tank, circulated and discharged at the other end. Each hour our pumping system circulates 2.6 million gallons through tanks varying in size from 12 to 90,000 gallons.

All our turtles are fed on a pelleted feed, similar in appearance to that used in other livestock farming industries. It varies in size according to



the age of the turtle and has the capacity to float to make for easier feeding. It is high in protein, thus enabling us to obtain an efficient food conversion ratio and achieve a rapid growth rate.

You will note the turtles in these tanks have begun to lose the normal uniform shell colour of young turtles. It is now possible to see the wonderful variety of shell patterns and colour that will become even more pronounced by the time the turtles reach 3 years of age, in fact every shell will be truly unique as no two shells are identical.

Area Two

These small tanks contain the baby or hatchling turtles. They are all between 3 days and 6 months of age.

The baby turtles are brought here from our hatchery, where the eggs have incubated for approximately 8 weeks. After hatching, the baby turtles are not ready for the water until they have absorbed their yolk sacs. This takes three days. Seeing these baby turtles apparently so frail and vulnerable, it is a miracle that any at all survive in the wild; and in fact only a very small percentage even make it from the nest into the sea. The eggs deposited on the beach by the wild female are subject to human and animal predators before they hatch. After hatching, the baby turtles struggle to the beach surface and all together make a frenzied dash for the



sea; it is a hazardous journey. Hungry crabs and birds take a heavy toll and once they reach the surf, fishes including sharks kill the majority of survivors. Obviously the survival rate at Cayman Turtle Farm is far higher and through our ever increasing knowledge of their life cycle it is improving every year.

The first year of a green turtle's existence in the wild is still somewhat of a mystery, nobody knows where they really go or what is their diet, although it is thought that they do not become primarily vegetarian until after one year of age.

Area Three

These two large tanks, in fact the first round tanks constructed at Goat Rock, contain commercial growing stock. The length of the back shell can be a rough guide as to their age. A 10" back shell would indicate a 1 year old turtle. A 15" shell would indicate 18 months and 20" shell would indicate 3 years.

You will see that when the turtle swims the front flippers are used for propulsion while the rear are used for steering. Speeds of over 20 miles an hour can be attained by these turtles over short distances.

To the right of these tanks you will see and hear the main pumping station. This is where the majority of water is brought in from the sea for circulation around the tanks.



1. Feeding growing stock.
2. Entrance to farm tour.
3. & 4. Baby Turtles emerging from eggs in hatchery.
5. Baby turtles being placed in hatchling tanks.
6. One year old turtles.

Area Four

These six small round tanks contain different species of sea turtles, including Loggerheads, Hawksbills and Rيدleys. These are kept purely for observation and Cayman Turtle Farm has no intention of farming these other species on a commercial scale.

It should be noted that most other species of sea turtles are carnivorous, their meat has a much stronger flavour and therefore it would not have the appeal of our farmed green turtle steak.

Detailed information boards relating to each species are attached to the tanks.

You may be interested to know that these fibre glass tanks come from our first turtle farm site on Grand Cayman. There, at Salt Creek, these floating tanks, attached to cat walks, held all the original green turtle stock.

Area Five

This large pond and artificial beach contains our breeding herd. Basically in this area, the turtles mate, the females crawl up on the beach, deposit their eggs and return to the water.

The pond has a capacity of 800,000 gallons, and is serviced by a 10,000 gallon per minute pump; note the sea water enters the pond at one end, circulates and leaves the pond at the other end.

In order to accelerate our farm breeding programme it was necessary to bring to Cayman, mature "wild" male and female turtles. As The Cayman Turtle Farm was not started until 1968 our oldest farm reared turtles are only just reaching maturity. Our farm reared green turtles are



1

easily recognised by their far superior back shell colours and patterns.

In 1973, the first known nestings in captivity occurred in our breeding pond, subsequently eggs were laid on our artificial beach and healthy turtles hatched from these eggs. This was a major breakthrough and our goal is now self sufficiency in egg production; eventually entirely with farm reared breeding stock. Indeed in 1975 we achieved our second major step forward when a farm reared female laid 601 eggs and healthy hatchlings emerged.

The complex reproduction cycle of the green turtle is still not fully understood; for instance do the mature female turtles mate every year? How, during the breeding season, are the mature turtles able regularly to return thousands of miles to exactly the same beaches where they themselves started life? At Cayman Turtle Farm we are gradually putting together "all the pieces" and hope that within a short time we will have solved most of the mysteries of the reproduction cycle of the green sea turtle.

During mating and laying seasons we maintain a 24-hour watch on the pond and artificial beach. You will note all breeding turtles are tagged so it is therefore easy to keep records of such facts as when and how long each



2

turtle mates, how many eggs each female lays per nest and per season.

In Cayman, mating occurs between April and July each year. Following a complex courting procedure, male and female will mate sometimes for periods of up to 52 hours.

1. Turtle viewing area.
2. Individual mating pens.

Area Six

The laying season in Cayman is from May until September. During this period and only at night the females crawl slowly and awkwardly up the artificial beach, scoop out a 2 to 3 ft hole with their rear flippers and then deposit their eggs, cover the nest and return to the water. This, of course, is an exact replica of their behaviour in the wild, once the eggs are covered, the females return to the sea, taking no further interest in the fate of the eggs they have laid.

You may be interested to know that the females lay up to 230 eggs per nest and we have recorded one female that nested 10 times in one season producing over 1700 eggs.



This double row of tanks again holds commercial growing stock from 6 to 18 months. The majority of our growing stock, **over 18 months of age**, is situated in the main commercial part of the Farm on the other side of the road. (This is not open to the public).

There are also small tanks used for research experiments in feed, stocking density and medication.

On the far side of this area you can see the main outflow channel which carries the water back into the sea.



Area Seven

These oblong tanks were the last to be constructed at Goat Rock, and water circulation within this particular shape and size tank has proved to be very efficient.

The incoming water fountains are intended also to serve another set of tanks that will, when built, "back" on to the existing row.

Three of these tanks normally hold larger commercial growing stock, whilst the three tanks nearest the road are reserved for future breeding stock.

You will see that the growing stock in these tanks, normally between 2 and 3 years, have now developed truly beautiful shells, each one entirely different. Their diet is basically the



same, but the feed pellets are considerably larger.

As the turtles become older, they spend less time floating on the surface and during non-feeding periods can be seen resting on the bottom, occasionally coming up to the surface to breathe. Unlike fishes the turtle, being a reptile, breathes air, and on average comes to the surface every 40 minutes.

Your tour of the only commercial green sea turtle farm in the world is now complete. We hope you have found it a fascinating experience, and will perhaps purchase some memento from our well stocked farm gift shop.

1. Female laying eggs on artificial beach
2. Female leaving artificial beach after laying her eggs.
- 3 & 4. Young turtles.
5. Larger growing stock.

Our gift shop offers a wide range of genuine farmed products including:

**POLISHED SHELLS
SHELL JEWELLERY
FREEZE DRIED/
TAXIDERMY TURTLES
TURTLE SOUP &
LEATHER GOODS
PLUS
TURTLELAND T-SHIRTS
GLASSES
TABLEWARE
POSTCARDS AND
MANY OTHER
UNUSUAL GIFTS**



2

The following is a brief summary of the main items produced and distributed to many countries by Cayman Turtle Farm Ltd.

STEAK

Similar to veal in texture, flavour and colour. Higher in protein and lower in fat/calories than chicken or beef steak.

SOUP PRODUCTS

Supplied to the world's manufacturers of traditional clear turtle soup and chowders.

SHELL PRODUCTS

A wide range of whole shells and shell jewellery can be seen in our gift shop. Polished shell shapes for jewellery manufacturers and beads are also mass produced.

LEATHER

Salted skins are exported, processed into leather and eventually into finished leather goods.

OIL

This product has exceptional moisturising qualities and is used by cosmetic manufacturers in such preparations as soap, skin lotions and ski/sun tan oils.

1. Interior of our shop.
2. A selection of Freeze Dried and Taxidermy turtles.
3. Finished turtle back shell.
4. Finished products manufactured from farmed turtle skins.
5. A selection of farmed shell jewellery.



5