

Quarantine protects Cape York



Department of
AGRICULTURE
FISHERIES &
FORESTRY
AUSTRALIA



AQIS
AUSTRALIAN QUARANTINE
AND INSPECTION SERVICE





Australia is free of many of the major agricultural pests, diseases and weeds that are present in southeast Asia and some Pacific countries. Their introduction into Australia could devastate plant and animal industries and would severely affect our way of life.

The Australian Quarantine and Inspection Service (AQIS) is responsible for keeping exotic pests, diseases and weeds out of Australia. All Australians and visitors to Australia are encouraged to help protect our environment and agricultural and livestock industries by reporting pest or disease outbreaks to Quarantine.

AQIS has developed the Northern Australia Quarantine Strategy (NAQS) in recognition of the unique quarantine situation presented in this part of the country. NAQS is designed to protect northern Australia, from Broome to Cairns including the Torres Strait, from the entry of harmful pests, diseases and weeds. An important part of the strategy is an early warning system that alerts AQIS and other agencies to the arrival of exotic pests, diseases and weeds through monitoring and surveys.

Top Watch is the quarantine awareness campaign designed for northern Australia. Top Watch encourages reporting of unusual pest or disease incidents and aims to create an awareness of quarantine among communities of northern Australia.



Trapping dangerous exotic pests, such as screw-worm fly (see p9), means Quarantine can quickly detect and eradicate them.

Pests, diseases and weeds

Cape York is vulnerable to foreign pests and diseases through increased yachting and tourism activity and through its proximity to our northern neighbours. If you see any of these pests, diseases or weeds, contact your nearest Quarantine office.

Asian honey bee

Asian honey bee was first detected in Australia on the northern islands of the Torres Strait in February 1993. It is now established on three of these islands. The bee can



carry tiny mites that can kill our European honey bees. This is the bee that arrived in Darwin in 1998. Early detection meant the pest was able to be eradicated. The mites could potentially destroy commercial honey production in Australia as well as crops that rely on bee pollination. Asian honey bees look very similar to European honey bees but different from native bees. They nest in hollow trees and buildings and could arrive as a swarm on a boat.

Banana skipper

Originally from southeast Asia, the banana skipper

butterfly is a major pest of banana plants. Larvae (caterpillars) commence feeding at the edge of the leaf and construct a leaf shelter by rolling the edge of



the leaf. Inside this leaf roll, which is an obvious sign of infestation, the larva secretes a protective, white, waxy powder around itself. As few as seven larvae on a leaf can strip the entire leaf back to its midrib.

Melon fly

Melon fly has a wide distribution, including Papua New Guinea, Indonesia and Malaysia. The melon fly favours cucumbers, gourd, pumpkin, squash, beans, watermelon and tomatoes. Infested fruit and vegetables will often have small spots on their skin. They may look healthy on the outside, but be rotten inside with the fruit fly maggot.



Papaya fruit fly

The papaya fruit fly is prevalent in Papua New Guinea and Indonesia and has been found in the Torres Strait, where there is an intensive program of monitoring and control in place. This is a very serious fruit fly pest which attacks a wide range of fruits. Fruits become infested at an earlier stage than with most other fruit fly species. Fruit fly maggots feed inside the fruit, which then becomes rotten. Papaya fruit fly can affect the trade of many fresh fruit and vegetables. It was eradicated from the Cairns area in 1998, but locals will not forget the restrictions on moving fruit from Cairns to other parts of the region. The closely related Filipino fruit fly was eradicated from Darwin in 1998.



Red-banded mango caterpillar

This pest, which can ruin mango crops, has already been detected on some islands in the Torres Strait.

The caterpillar can live undetected in the fruit and destroy the mango from the inside out. Stains on the skin of the mango from sap flow are a common sign of infestation. As the name suggests, the older caterpillars have distinctive red stripes across the body.



Mango pulp weevil

The mango pulp weevil looks similar to the mango seed weevil, which is already in the Northern Territory, Queensland and northern New South Wales, but is much more destructive as it lives in the pulp of the mango rather than the seed. It is difficult to know if a mango is infested until you cut it open. Infested fruit is inedible and larvae can often be seen in the fruit's flesh where they form distinctive brown chambers up to 1cm in diameter.



Sugarcane borer

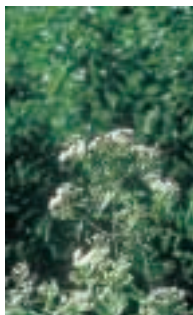
Sugarcane borers are caterpillars that bore inside sugarcane stalks, destroying the heart of young seedlings, breaking stalks, damaging cane used for re-planting and reducing the amount of sugar the plant can produce. The adult borer (a moth) lays its eggs on the underside of green or dry leaves.



Bore-holes in the stalks and stems are also a clear sign of infestation, but are usually concealed under the sheath of the leaves.

Siam weed

Siam weed is a scrambling shrub that invades crops, plantations and pastures, smothering and out-competing beneficial plants. It is also a serious environmental weed, reducing the growth of native bush. In the dry season it can pose a major fire hazard. Siam weed is usually a spreading shrub growing several metres tall, but it can also climb trees. It has a distinctive pattern of opposite (paired) branches, with alternate pairs arranged at 90° to each other. The opposite leaves are faintly aromatic when



crushed. Siam weed flowers between May and September, with masses of small white or pale lilac flowers. Its small seeds are carried in the wind or can become attached to clothing or trade items. It is toxic to stock.

Limnocharis

Limnocharis – also known as yellow burrhead or yellow sawah lettuce – is a serious weed of wetlands and slow-moving streams. Dense infestations can choke waterways. It threatens water quality, fresh water aquaculture and the unique wetlands of northern Australia. Several small infestations were discovered in the Cairns district in June 2001. These have been destroyed and the search continues for more plants.



Mile-a-minute

Mile-a-minute vine smothers tree crops and pastures and is a major environmental weed of humid tropical regions. It is a slender-stemmed vine with heart shaped or triangular, opposite leaves.



Its profuse small white flowers are attractive to bees and moths. Creeping stems take root where they come into contact with the soil. The small seeds are wind-dispersed. It is used in Fiji and other neighbouring countries as a remedy for cuts and abrasions, and could enter Australia as an illegally-smuggled herb.

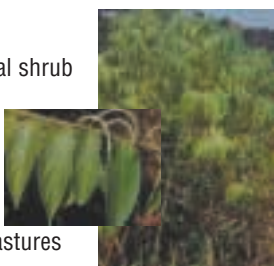
Fringed spider flower

Fringed spider flower is a perennial scrambling herb with mauve flowers. It is very invasive and is a serious weed of annual crops such as melons and peanuts and in the environment is a weed of footpaths, lawns and disturbed areas. It has 1mm diameter round seeds that spread via footwear, machinery and soil. It is being eradicated from five locations in the Darwin area.



Spiked pepper

Spiked pepper is an ornamental shrub that has escaped from cultivation and is becoming a serious environmental weed in southeast Asia and Papua New Guinea. It also invades pastures and plantations. Growing up to 4 metres tall, spiked pepper has distinctive circular scars at intervals along the main stem and branches and often has conspicuous stilt roots near the base of the plant. Its cream-coloured flower spikes are narrow and curved. The tiny fruit can be dispersed long distances by birds.



Sugarcane smut

Sugarcane smut is a fungus that affects sugarcane plants and can cause serious economic losses. The first sign of infestation is a shortening and crinkling of the leaves. Another tell tale sign is a black whip-like structure, which bears masses of sooty spores.



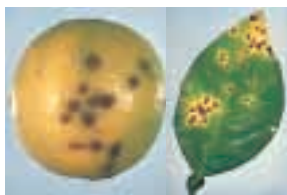
Black sigatoka

This fungal disease can cause great losses in the banana industry. Rusty-brown to black streaks form on the leaves. The streaks enlarge and eventually dry to a light-grey colour with dark brown to black borders and often with yellow zones around them. Eventually the leaves drop. The disease symptoms are similar to those of yellow sigatoka, which is widespread in Australia, but black sigatoka is far more damaging.



Citrus canker

This bacterial disease can cause great losses to the citrus industry. The disease can affect the trade of citrus fruit. Corky rusty-brown spots form on the leaves, shoots and fruit, making them unsightly. Older spots on leaves become surrounded by a greasy looking margin and a yellow halo. This disease is common in Indonesia and Papua New Guinea and was eradicated from the Northern Territory in 1995.



Screw-worm fly

Screw-worm fly is a blowfly that occurs in most tropical countries except Australia. Some of the highest numbers are reported to occur in areas of dense vegetation on the PNG coast adjacent to Torres Strait.



The fly is different from other blowflies because it lays its eggs on the edge of any wound on a warm-blooded animal including humans. The eggs hatch into maggots, which crawl into the wound, infesting it and feeding on the flesh. The wound is continuously enlarged by the action of the maggots, and weeps serum that attracts more screw-worm flies. Animals can die from loss of tissue fluid and infection. Check

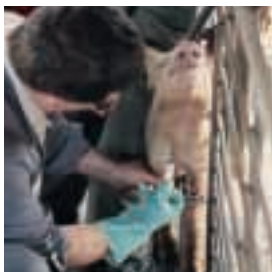
fly-struck animals and send maggots to your nearest Quarantine inspector or veterinarian. Maggot collection kits are available from all Quarantine offices.

Japanese encephalitis

Japanese encephalitis (JE) is a potentially fatal viral disease of humans and horses. The primary hosts of the virus are wild water birds and pigs.

Humans can contract the disease from the bites of

infected mosquitoes that have recently bitten an infected pig. While most infected people remain disease free, some will show signs including fever, severe headaches, muscle pain, nausea, disorientation, coma and sometimes death. NAQS bleeds sentinel pigs and cattle to test for JE at key locations through northern Australia. People living in high-risk areas are protected from this disease by vaccination, mosquito control and moving piggeries away from human habitation.



Rabies

Rabies is a fatal viral disease of all warm-blooded animals. It affects the nervous system and is spread in saliva through the bite or scratch from an infected animal such as a dog or a fox. If not treated immediately after being

bitten, people are likely to develop signs of the disease and if they do they will die.



There are varying incubation periods and signs between different animals. Some infected animals will drool, become irritable, aggressive and unpredictable. They may attack other animals or objects. They then become paralysed and die within four or five days. Some animals only become paralysed, and die quickly without showing other strange behaviour.

What to do if you suspect rabies: avoid any animal exhibiting aggression or strange behaviour; if bitten wash the site with copious amounts of warm soapy water to remove all traces of saliva and go to your doctor or hospital; immediately contact either the Exotic Disease Hotline (1800 675 888), your local AQIS officer, veterinarian or police officer.

Foot and mouth disease

This is a highly infectious virus that affects cloven-hoofed animals such as cattle, buffalo, camels, pigs, sheep, goats and deer. It can spread from one animal to another in exhaled



air, saliva, mucus, milk and faeces. It can also be spread on wool, hair, grass and straw, by the wind, on footwear, in clothing, on livestock equipment and on vehicle tyres.

Clinical signs are fever followed by the appearance of vesicles (fluid-filled blisters) on the lips, tongue and palate, between the toes, on heels and on teats. Animals are lame, off their food and drooling.

What to do if you suspect foot and mouth disease: do not leave the property (unless it is essential in order to communicate with the appropriate



person). If you must leave the property, change clothes, disinfect footwear, equipment and vehicle with suitable disinfectants [quaternary ammonium solution, sodium carbonate which is soda ash or washing soda, citric acid, or acetic acid (vinegar)]. Immediately contact the Exotic Disease Hotline (1800 675 888), your local AQIS officer, veterinarian or police officer.

Classical swine fever

Classical swine fever is a severe viral disease of pigs. It is spread by infected pigs but can also be transmitted in fresh or frozen meat and cured or



salted pig meat (like ham and bacon). The virus can stay alive in contaminated pig pens for up to two weeks and can be carried on trucks, clothing and shoes.

Pigs may be drowsy with high fever. They huddle together, stagger when forced to move, and are either constipated or have diarrhoea and vomiting. Coughing is an early sign. Skin has red or purple blotching on the ears, snout, limbs and body.

What to do if you suspect classical swine fever:

Follow the same procedure as for foot and mouth disease (see page 11).



Checking a fruit fly trap

Livestock buffer

A Livestock Buffer Zone has been established in the northern part of Cape York peninsula to prevent the spread of cattle pests and diseases to the south should they gain entry. The zone stretches across the peninsula from the east to the west coast, and about 160 kilometres from north to south. Fencing across the peninsula prevents cattle getting into the buffer zone. Please report sightings of cattle in the buffer zone, or damage to the buffer fence or grids, to the Quarantine officers in Bamaga.

Travelling in Cape York peninsula

FM 88 Top Watch Radio Station

As you travel throughout Cape York peninsula, you will see a number of signs asking you to help quarantine protect Australia by tuning to FM 88 on your car radio. These low-powered FM radio transmitters broadcast short continuous messages within a limited distance around the sites where they are installed. At the Hann River, Coen Information Centre, Archer River, Moreton Telegraph Station, the Jardine ferry crossing and at Seisia, you can tune in and hear lots of information on the history of each location you are travelling through, as well as important quarantine information about the region.

As the transmitters are very low powered, you may need to manually tune your car radio to pick up the transmissions.



Inspecting produce for potential quarantine threats

Coen Information and Inspection Centre



Just north of Coen is an information and inspection centre to give quarantine information and to screen vehicles travelling south for potentially-infected material.

Inside the centre is information on pests and diseases that threaten the region and other useful information to make your visit to Cape York peninsula all the more enjoyable. Free information packs are also available from the centre, to help you plan your trip to the top.

Travelling south

Please cooperate with DPI quarantine inspectors at Coen, who will return your goods once they have checked them for pests and disease. If you are travelling by road, keep an eye out for pests or diseases in plants and animals and tune into FM88 on your car radio to find out more about quarantine.

Please be sure to use the garbage bins or fenced pits to dispose of any foodscraps while you are in Cape York peninsula. If you are camping well away from these facilities, please burn thoroughly or deep-bury any foodscraps you may have. Exotic diseases such as foot and mouth disease could be introduced to Australia by feral pigs feeding on foreign food scraps, so please do all you can to prevent this.

Early warning

NAQS early warning system includes a network of sentinel cattle herds, pigs and insect traps, which are located at key sites from Broome in Western Australia to Cairns in Queensland and including the Torres Strait. Sentinel animals are regularly



Quarantine scientists survey for plant pests

bled for early warning of diseases such as Japanese encephalitis, surra and bluetongue. Insect traps are cleared every month – and every fortnight in the wet season – for early warning of exotic fruit flies and screw-worm fly. In addition, NAQS scientists regularly survey risk areas across northern Australia for any signs of new animal or plant pests, diseases or weeds. NAQS scientists also carry out collaborative survey and monitoring activities in neighbouring Papua New Guinea, Indonesia and East Timor.

In addition, Quarantine officers work extensively throughout the region to conduct animal and plant health surveys, survey for illegal landings of vessels and to deliver quarantine awareness to local residents including graziers, National Parks and Aboriginal Community Rangers, schools, police and health workers.

The effectiveness of this early warning system depends on the active cooperation of people who live and work in remote areas. They are likely to be the first to notice new weeds and unusual animal and plant pests and diseases.



Help Quarantine keep watch at sea



Inspecting items of quarantine concern

Keep watch at sea

The movement of people and vessels around Cape York peninsula could bring unwanted pests, diseases and weeds. But while you are on the water, you can help keep our environment free from these problems:

- if you see plants, fruit, vegetables, meat, meat products or animals (including pets) being taken ashore from foreign vessels, contact Quarantine;
- don't trade foodstuffs with foreign vessels;
- report sightings of dead or dying animals either on shore or at sea, as this may indicate an exotic disease;
- report sightings of fresh food or waste washed up on beaches from foreign vessels;
- always report landings of foreign vessels in remote areas;



Spreading the Top Watch message in Northern Peninsula Area



Quarantine relies on the help of Cape York residents

- report the discharge of ballast or waste by overseas-registered vessels in Australian waters;
- if you have a vessel over 7 metres and are leaving the Torres Strait for mainland Australia, you will need to notify Quarantine 24 hours before reaching the mainland;
- if you see a suspicious incident, contact Coastwatch (1800 061 800) or your local Quarantine officer.

All vessels arriving from overseas must receive quarantine clearance at approved ports of entry: Cairns, Thursday Island, Weipa, Broome, Nhulunbuy and Darwin. All live animals on board are a quarantine risk and must be declared.

Fresh and tinned meat, salami, eggs, dairy and other animal products are potential carriers of viruses including foot and mouth disease, Newcastle disease and classical swine fever. Foot and mouth disease and classical swine fever can last in chilled or frozen meat for a year or more. Plants, seeds, fruit, vegetable and timber products could also carry insect pests and diseases.

Cruising yachts

If you have an animal on board, you will be required to confine it and ensure it does not escape. You will be permitted to moor in mid-water only. The animal must not be allowed to come ashore or into contact with Australian animals including birds. Should this happen, you may face prosecution with heavy penalties and the animal may be destroyed.

Follow these steps to keep Australia pest free:

- proceed directly to a first port of entry after entering Australian waters and ensure you fly the yellow "Q" flag prior to quarantine clearance;
- identify yourself to Coastwatch aircraft;
- keep all foodstuffs and animals secure until your yacht has been cleared by Quarantine officers;
- ensure that any bonded animal is kept securely on board at all times;
- dispose of all garbage properly;
- do not trade foodstuffs with other overseas yachts or fishing boats;
- keep your yacht free of insects such as mosquitoes and midges; and
- report to Coastwatch any vessels of overseas origin that you notice moored in unusual and remote locations.

Visitors are welcome – pests are not

Australia welcomes all visitors to the remote wilderness areas of Cape York. To ensure that these scenic areas remain open to visitors, please make yourself aware of the risks and consequences of introducing pests and diseases into Australia. Declare all risk items on arrival at your first port of entry.

If you are a tour operator, AQIS has leaflets available to ensure your clients are aware of quarantine restrictions and pest and disease threats.

Quarantine officers are also available to discuss quarantine restrictions either with individuals or at gatherings of tour operators.

Before visiting remote areas enquire if quarantine restrictions apply and if they do, draw them to the attention of other travellers. If you are familiar with an area and notice unusual behaviour or signs of plant pests or diseases, please report it to a Quarantine officer.

Keep a Top Watch

Whether you live on Cape York peninsula or are just visiting, you can help keep our region pest and disease free. For more information, contact your Quarantine office or visit the AQIS homepage at www.aqis.gov.au

Bamaga

Airport Road
Bamaga Qld 4876
Tel (07) 4069 3142

Cairns

Airport Administration Centre Building
Cairns International Airport
Cairns Qld 4870
Tel (07) 4030 7800

Coen

Coen Information and Inspection Centre
Tel (07) 4060 1135

Thursday Island

Ground Floor
Pearls Building
Victoria Parade
Thursday Island Qld 4875
Tel (07) 4069 1185

Weipa

Customs House
Florence Hibberd Drive
Evans Landing
Weipa Qld 4874
Tel (07) 4069 7380



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