

# Freshwater Aquaculture

## Fact Sheet



### Have you considered aquaculture?

Aquaculture means the breeding, growing, keeping and harvesting of fish, crustaceans, molluscs and marine vegetation with a view for sale.

Farming fish and yabbies can provide an income stream, fresh food and make use of your existing facilities like farm dams. Tourists are very keen to learn about fish farming and visit aquaculture facilities.

### What types of freshwater aquaculture are there?

In NSW the major freshwater aquaculture industries are:

1. Murray Cod production in cages in irrigation storages
2. Silver Perch production in purpose built earthen ponds
3. Rainbow Trout production in concrete raceways
4. Barramundi and Murray Cod production in tanks in sheds
5. Native fish fingerling production in hatcheries
6. Yabby culture in purpose built earthen ponds
7. Production of aquarium species
8. Yabby culture in farm dams
9. Tourist fishout facilities

Tourism is often associated with aquaculture production facilities for farm gate sales and tours. For background on the NSW aquaculture industry see Facts and Figures 2017.

[www.dpi.nsw.gov.au/fishing/aquaculture/publications/general/facts](http://www.dpi.nsw.gov.au/fishing/aquaculture/publications/general/facts)



## Different types of aquaculture

Aquaculture can be either very labour intensive often giving high returns, or very hands off but providing much reduced financial returns.

Intensive aquaculture is growing fish at high density that requires feeding and water quality and disease management. Items 1-7 listed above are examples of intensive aquaculture.

### To undertake this type of aquaculture you require:

- Access to high quality water (river/dam/bore). For example Silver Perch culture in earthen ponds requires a water budget of 40Mgl/ha/yr to fill ponds, exchange water and replace evaporation.
- Land with suitable water retaining soil (eg clay) for pond aquaculture or storing waste water
- Three phase power
- All weather road access
- Access to services
- Sheds for storage and operations. For example sheds for holding fish/yabbies for pre-market conditioning.
- Trained staff (fish culture/ water quality monitoring/disease monitoring and treatment)
- A business plan. The costs of pond construction, purchase of tanks, power supply, road infrastructure, water supply and operational sheds can be significant.

An alternative is growing fish/yabbies at low density (Items 8-9 above) without feeding them. This reduces the problems associated with water quality and disease and is less labour intensive.

### To undertake this type of fish/yabby aquaculture you require:

- Purpose built or farm dams. You do not have to own the dams just have landholders permission to use them. A Class E aquaculture permit will authorise the use of up to 1000 farm dams for yabby aquaculture
- A central location to store equipment and hold yabbies
- The costs associated with this type of aquaculture business is greatly reduced from that of an intensive operation

## Do I need an approval to conduct aquaculture?

- If you farm and sell freshwater fish, crustaceans or molluscs you will need an Aquaculture Permit from NSW DPI
- Constructing new ponds or sheds will also require development consent from your local Council
- A Seafood Licence from the NSW Food Authority will be required if you intend to process fish before sale
- You may not conduct aquaculture in natural waterways (billabongs/creeks/rivers)

If you only wish to produce fish in farm dams for your own consumption, an aquaculture permit is not required. Also, if you grow aquarium species for sale in tanks with a volume less than 10,000 litres you do not need a permit.

There are different types of permits depending on the type of aquaculture you are doing, covering everything from hatchery, tourist fishout, and tank or pond aquaculture.

## Once I have an aquaculture permit, where can I sell my product?

Holding an aquaculture permit allows you to sell your product direct to retailers, the public or other markets eg restaurants and clubs, or through registered fish markets such as the Sydney Fish Markets.

## How much will a permit cost me?

Aquaculture permit costs vary depending on the type of permit you are applying for. There are also annual fees attached to aquaculture permits. A Schedule of Aquaculture Fees and Charges is available. A fish farm application will cost \$793 and a yabby farm \$477.



## Where are the best places to put an aquaculture farm?

You must consider a number of matters when investigating a potential site for aquaculture. These include water access, topography, climate, soil type, and proximity to markets, support and infrastructure.

The *NSW Land Based Sustainable Aquaculture Strategy* includes sections on site selection (page 23) and design (page 69) of aquaculture facilities. See also *Land use planning: Aquaculture*.

## Where can I obtain fingerlings?

Fingerlings can be obtained from any hatchery with a licence to produce that particular species. See page 27 of the NSW Aquaculture Industry Trade Directory. [www.dpi.nsw.gov.au/fishing/aquaculture/publications/industry-directory](http://www.dpi.nsw.gov.au/fishing/aquaculture/publications/industry-directory)

## Are there any aquaculture associations or support groups?

There are a number of aquaculture associations that can provide information and often host farm field days. They include:

### NSW Aquaculture Association

[www.nswaqua.com.au](http://www.nswaqua.com.au)

### Freshwater Native Fish Association

[nettedsystems@bigpond.com](mailto:nettedsystems@bigpond.com)

### **Educational opportunities include:**

#### Primary Industries Education Foundation Australia

[www.piefa.edu.au](http://www.piefa.edu.au)

[www.nswdpi-schools-program.com/yabby-unit](http://www.nswdpi-schools-program.com/yabby-unit)

## Support and advice for starting an aquaculture business:

The NSW Aboriginal Fishing Trust Fund provides grants and loans for Aboriginal communities to develop businesses associated with aquaculture throughout NSW.

[www.dpi.nsw.gov.au/fishing/aboriginal-fishing/AFTF](http://www.dpi.nsw.gov.au/fishing/aboriginal-fishing/AFTF)

### NSW Department of Premier and Cabinet.

[www.nsw.gov.au/improving-nsw/regional-nsw/regional-growth-environment-and-tourism-fund/](http://www.nsw.gov.au/improving-nsw/regional-nsw/regional-growth-environment-and-tourism-fund/)

### NSW Aboriginal Land Council Economic Development Program – Early Stage

#### Investment Loans program

[www.alc.org.au](http://www.alc.org.au)

NSW Indigenous Chamber of Commerce – Including regional Indigenous Business Hubs.

[www.nswicc.com.au](http://www.nswicc.com.au)

NSW Indigenous Business and Employment Hub

[www.alc.org.au/newsroom/media-releases/yarpa-breakfast.aspx](http://www.alc.org.au/newsroom/media-releases/yarpa-breakfast.aspx)

Indigenous Business Australia.

[www.iba.gov.au/](http://www.iba.gov.au/) and <http://www.iba.gov.au/business-life-cycle/>

## Where can I find more information on aquaculture?

You will find general and specific information about aquaculture on the department's website, as well as a number of other useful links:

[www.dpi.fishing/aquaculture](http://www.dpi.fishing/aquaculture)

If, after looking through the information on the department's website further information is required, please contact the Aquaculture Unit at Port Stephens Fisheries Institute on (02) 4982 1232.

