



## Australian Bight Abalone Management

### Disease Prevention & Translocation Protocols

#### 1. **Site selection**

The sites used by ABA for the 2005 – 2008 Projects are located off Waldegrave Island near Elliston on the Eyre Peninsula of South Australia. The sites are geographically isolated and there has never been any recorded incident of disease in the abundant wild stocks that grow in the vicinity.

To their detriment, on land abalone farms have generally selected their farms sites based on a series of criteria focused on logistics, access to labour, power and cost savings.

ABA chose their sites with one primary criteria in mind – water quality.

The sites off Waldegrave Island are surrounded by some of the best wild catch abalone grounds in Australia. The consequent benefits (faster growth, lower mortality, abundance of feed etc) significantly outweigh the increased cost of transport and labour (and of course the ABA method does not require the massive power usage of on land farms).

#### 2. **Brood Stock Selection**

Under strict biologist supervision brood stock for each year's spawning is collected by experienced divers. The divers identify the healthiest animals with high meat to shell ratios and obvious significant growth (identifiable by growth rings on the animals shell).

ABA divers also collect the fastest growing company stock, which are kept separately in a brood stock nursery system in company Aquafarms. This system allows the company to identify and monitor faster growing family lines.

### **3. Brood Stock Conditioning**

The brood stock that is selected for the spawning process is transported to a quarantined holding facility at the relevant hatchery. The brood stock is then kept in quarantine for a period of 8 – 12 weeks prior to spawning. During this period the brood stock is tested for any notifiable diseases and is closely observed to ensure only the most highly conditioned stock is selected for spawning.

### **4. Spawning & Settling**

Prior to spawning the hatchery spawning area is thoroughly disinfected and chemically treated to ensure bio-security. The brood stock is then spawned and the juvenile spat is settled on plates in spat growth tanks where it grazes on natural algae.

The water flowing into the spat growth tanks is pumped directly from the ocean and is not reticulated from any previous pumping or grow out area.

### **5. Growth Supervision**

Throughout the grow out process biologists (both contractor and ABA internal) and hatchery staff observe and monitor growth and animal health on a tank by tank basis. Runts are removed and the presence of an abundance of natural algae for feed is maintained.

### **6. Intra Farm Bio-security measures**

Any visitors to the hatchery are required to undergo a chlorine wash, spray and shoe/boot dip. The same requirement exists for staff whenever they enter/exit a different section of the farm.

### **7. Testing**

Three weeks prior to any stock movement, spat from each tank to be transferred is tested for notifiable diseases and sent for laboratory testing. The testing is conducted by an independent veterinarian and the results are forwarded directly to the relevant farm, ABA and PIRSA simultaneously.

Immediately prior to transfer the stock is again tested by both the relevant farm and ABA internally to ensure no breach in bio-security.

## **8. Grading & Transfer**

Under biologist and Operation's Manager supervision all of the spat for transfer is graded. Runts are removed and the remaining spat is measured and weighed.

The spat is transferred in self contained bio secure transfer tanks with specially designed water reticulation systems.

Upon arrival in Elliston the relevant transfer documentation is processed through administration and signed by the Operations Manager. The documentation is then forwarded to PIRSA as required under the Aquaculture Act (S.A.) 2001.

Finally the stock is then rechecked by the Operations Manager and marine biologist prior to transfer onto boats for transfer to company in sea nursery farms.

## **9. In Sea Nursery**

After settlement into the company in sea nursery farms the nursery spat is monitored closely by the company marine biologist. Spat samples are removed daily for laboratory testing and an independent veterinarian is engaged monthly to undertake site inspections and independent testing.

## **10. Transfer to Grow Out Farms**

After a unit is sold to an investor in each project but prior to transfer to that grower's Abtrays™, spat is again tested. Upon receipt of certification that the spat is disease free it is transferred to the grower's Abtrays™.

## **11. Ongoing Management**

Throughout the entire grow out process, up until harvest, continuous testing both internal and independent is undertaken across all projects throughout the lease sites.

Staff education and training seminars are held on a monthly basis and ABA constantly liaises with peak industry bodies and the relevant government departments to ensure our protocols and response policies exceed industry best practice standards.