## TEN FACTS ON FISH WELFARE IN THE AQUAPONIC SYSTEMS

1.	The design of the system should fulfill the biological requirements and the maintenance of
	good welfare, including health; facilitate management of the fish; minimise the risk of
	injuries and stress; avoid any design and material which may be harmful to the fish; allow
	for easy maintenance of good conditions of hygiene and water quality.

- 2. Abnormal behaviour, injury, poor health or increased mortality may be the signs of adverse fish welfare.
- 3. Fish should have sufficient access to hygenic, balanced and nutritious feed.
- 4. Stocking density shall be adjusted in line with the health, welfare and requirement of the fish.
- 5. Stress should be minimized during husbandary practises.
- 6. Appropriate water quality (such as dissolved oxygen, pH, temperature, ammonia, nitrite, carbondioxide) should be provided and monitored every day.
- 7. Frequent removal of dead and moribund fish are necessary.
- 8. During transport it is essential to provide appropriate water quality (ie low level of carbondioxide is necessary during transport of the fish).
- 9. Avoid situations which are likely to cause pain, injury or disease, by rapid disease and treatment of disease and humane killing.
- 10. Killing method is critical in fish welfare. Rapid killing is crucial to the welfare of farmed fish. Slaughter should be with anaesthetised or effectively stunned fish. Methods as severing the gills or use corbondioxide to kill fish are not allowed.