

# **Better Training for Safer Food BTSF**

# ORGANIZATION OF OFFICIAL CONTROLS, INCLUDING OF THE PLACING ON THE MARKET AND IMPORT OF AQUACULTURE ANIMALS

**Giuseppe Bovo** 

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#### **OVERVIEW**

**BACKGROUND TO REGULATION 2004/882** 

PLACING OF AQUACULTURE ANIMALS ON THE MARKET

**CONDITIONS FOR IMPORT** 

**SURVEILLANCE PLANS** 

**NATIONAL AND COMMUNITY LABORATORIES** 





#### INTRODUCTION

THE ORGANIZATION OF THE OFFICIAL CONTROLS PROVIDED FOR THE DIRECTIVE 2006/88/CE IS BASED ON REGULATION 2004/882 WHICH ESTABLISHES THE GENERAL RULES TO BE CONSIDERED BY SPECIFIC LEGISLATION





#### **BACKGROUND TO REGULATION 2004/882-1**

- (5) ANIMAL HEALTH AND ANIMAL WELFARE ARE IMPORTANT FACTORS THAT CONTRIBUTE TO THE QUALITY AND SAFETY OF FOOD.....,
- (6)MS MUST ENFORCE FEED AND FOOD LAW AND ANIMAL HEALTH RULES MONITORING TO VERIFY REQUIREMENTS ARE FULFILLED......
- (7) REGULATION 2004/882 PROVIDES A HARMONISED FRAMEWORK OF GENERAL RULES FOR ASSESSING ORGANISATION OF CONTROLS......
- (12) THE OFFICIAL CONTROLS SHOULD BE CARRIED OUT USING APPROPRIATE TECHNIQUES.....





#### **BACKGROUND TO REGULATION 2004/882-2**

- (13) THE FREQUENCY OF OFFICIAL CONTROLS SHOULD BE REGULAR AND PROPORTIONATE TO THE RISK......
- (17) LABORATORIES INVOLVED IN THE ANALYSIS OF OFFICIAL SAMPLES SHOULD WORK IN ACCORDANCE WITH INTERNATIONALLY APPROVED PROCEDURES......
- (18) THE DESIGNATION OF COMMUNITY AND NATIONAL REFERENCE LABORATORIES SHOULD CONTRIBUTE TO A HIGH QUALITY AND UNIFORMITY OF ANALYTICAL RESULTS.
- (39)SIMILAR OFFICIAL CONTROLS BY THE FVO MAY BE UNDERTAKEN IN THIRD COUNTRIES TO VERIFY COMPLIANCE OR EQUIVALENCY UNDER ARTICLE 46.......





# SPECIFIC REQUIREMENTS FOR THE PLACING OF AQUACULTURE ANIMALS ON THE MARKET



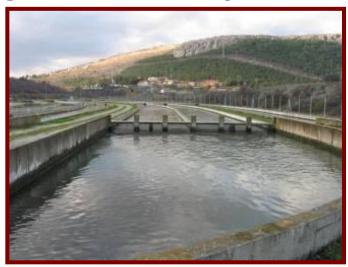


#### **COMPARTMENT**:

one or more farms under a common bio-security system containing an aquatic animal population with a distinct health status with respect to a specific disease, they may be dependent on natural surrounding waters or independent



Compartment independent from natural surrounding waters



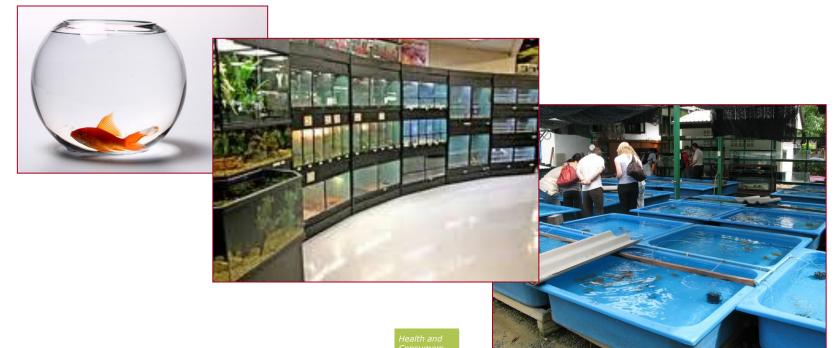
Compartment dependent from natural surrounding waters





#### **CLOSED ORNAMENTAL FACILITIES:**

means pet shops, garden centres, garden ponds, commercial aquaria or wholesalers keeping ornamental aquatic animals without direct contact with natural waters or equipped with an effluent treatment system





#### **CONTINENTAL ZONE:**

a precise geographical area with an homogeneous hydrological system comprising:

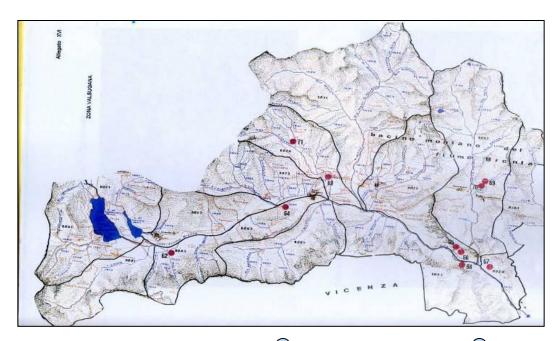
part of a water catchment area from the source(s) to a natural or artificial barrier(b) that prevents the upward migration of aquatic animals from lower stretches of the water catchment area,

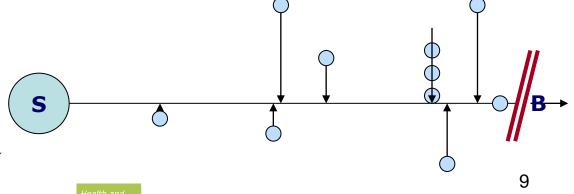
or

an entire water catchment area from its source(s) to its estuary

#### or more

than one water catchment area, ncluding their estuaries, due to the epidemiological link between the catchment areas through the estuary.







- species -

#### SUSCEPTIBLE SPECIES

May develop the diseases .

Lists in Annex IV part II of Directive 2006/88/CE

#### **VECTOR SPECIES**

Resistent to the disease but may vehiculate the causative agent .

Lists in Annex I of the regulation 1251/2008/CE.

NOTE: In case of VHS, IHN each species listed may be considered a vector only when they originate or are intended for compartments where susceptible species are present.





NON EX	NON EXOTIC DISEASES				
	DISEASE				
FISH					
	VIRAL HAEMORRHAGIC SEPTICAEMIA				
	INIEECOLOUG				

## SUSCEPTIBLE SPECIES

#### INFECTIOUS **HAEMATOPOIETIC NECROSIS** KOI HERPESVIRUS DISEASE

Herring (Clupea spp.), whitefish (Coregonussp.), pike (Esox lucius), haddock

mustelus), brown trout (Salmo trutta), turbot (Scophthalmus maximus), sprat (Sprattussprattus) and grayling (Thymallus thymallus)

(Gadusaeglefinus), Pacific cod (G. macrocephalus), Atlantic cod (G. morhua), Pacific salmon (Oncorhynchus spp.) rainbow trout (O. mykiss), rockling (Onos

Chum salmon (Oncorhynchus keta), coho salmon (O. kisutch), Masou salmon (O. masou), rainbow or steelhead trout (O. mykiss), sockeye salmon (O. nerka), pink salmon (O. rhodurus) chinook salmon (O.tshawytscha), and Atlantic salmon (Salmo salar) Common carp (Cyprinus carpio)

Raibow trout (Oncorhynchus mykiss) Atlantic salmon (Salmo salar) brown trout (Salmo trutta).

11

Tutti i dec #68th ordine Decapoda).

INFECTIOUS SALMON **ANEMIA** 

Infezione da Marteilia refringens

Infezione da *Bonamia ostreae* 

Malattia dei punti bianchi



DISEASE	POTENTIAL VECTOR SPECIES
VHS	Beluga (Huso huso), Danube sturgeon (Acipenser gueldenstaedtii), Sterlet sturgeon (Acipenser ruthenus), Starry sturgeon (Acipenser stellatus), Sturgeon (Acipenser sturio), Siberian Sturgeon (Acipenser Baerii) Bighead carp (Aristichthys nobilis), goldfish (Carassius auratus), Crucian carp (C. carassius), common carp and koi carp (Cyprinus carpio), silver carp (Hypophtalmichthys molitrix), Chubs (Leuciscus spp) Chub (Leuciscus cephalus), Roach (Rutilus rutilus), Rudd (Scardinius erythrophthalmus), tench (Tinca tinca) North African catfish (Clarias gariepinus), Northern pike (Esox lucius) Catfish (Ictalurus spp.), Black bullhead (Ameiurus melas), Channel catfish (Ictalurus punctatus), Pangas catfish (Pangasius pangasius), Pike perch (Sander lucioperca), Wels catfish (Silurus glanis) European seabass (Dicentrarchus labrax), Striped bass (Morone chrysops x M. saxatilis), Flathead grey mullet (Mugil cephalus), Red drum (Sciaenops ocellatus), Meagre (Argyrosomus regius), Shi drum (Umbrina cirrosa), True tunas (Thunnus ssp.), Atlantic bluefin tuna (Thunnus thynnus), White Grouper (Epinephelus marginatus), Senegalese solea (Solea senegalensis), Common sole (Solea solea), Common pandora (Pagellus erythrinus), White seabream (Diplodus sargus), Black spot seabream (Pagellus bogaraveo), Red Sea Bream (Pagrus major), Diplodus diplidus, Sharop snout seabream (Diplodus puntazzo), Common two banded seabream (Diplodus vulgaris), Red porgy (Pagrus pagrus) Tilapia (Oreochromis)



## ANIMAL MOVEMENTS COVERED BY THE DIRECTIVE

AQUATIC ANIMAL ORIGINATING FROM	AQUATIC ANIMAL INTENDED FOR		
	FARM/MOLLUSC FARMING AREA		
FARM/MOLLUSC FARMING AREA	HUMAN CONSUMPTION		
	WILD (RESTOCKING)		
	COMMERCIAL AQUARIA		
WILD	FARM/MOLLUSC FARMING AREA		
	COMMERCIAL AQUARIA		





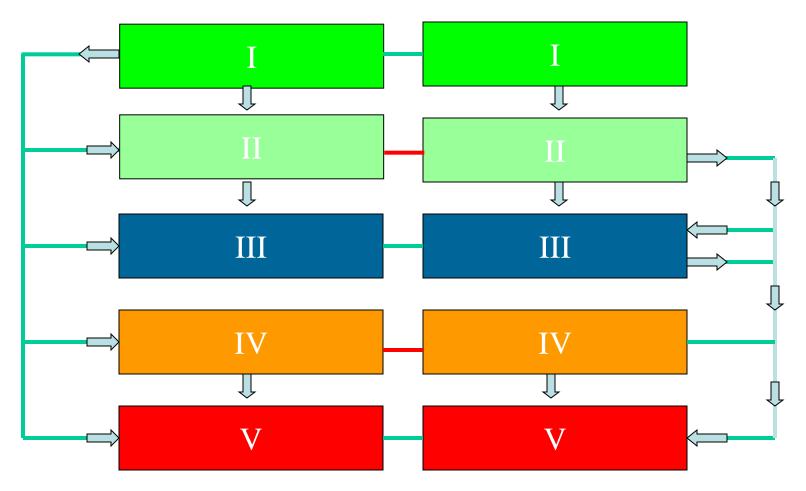
## ANIMAL MOVEMENTS NOT COVERED BY THE DIRECTIVE

AQUATIC ANIMAL ORIGINATING FROM	AQUATIC ANIMAL INTENDED FOR		
WILD*	WILD*		
	HUMAN CONSUMPTION (DIRECT ENTRY INTO THE FOOD CHAIN)		
WILD	PRODUCTION OF FISH MEAL, FISH FEED, FISH OIL AND SIMILAR PRODUCTS		
WILD/FARM/MOLLUSC FARMING AREA	NON-COMMERCIAL AQUARIA		

<sup>\*</sup> EXCEPT IN THE CASE OF DETECTION OF NOTIFIABLE DISEASES (ART. 26 DIRECTIVE)



#### **PERMITTED MOVEMENTS**





#### **CERTIFICATE REQUIREMENT**

#### NEED OF CERTIFICATE FOR DISPACTH OF THE CONSIGNMENT

CATEG ORIGIN	CATEGORY OF DESTINATION FARM								
	1 2 3 4 5								
1	YES	YES YES NO YES NO							
2	na	na na NO na NO							
3	na na NO na NO								
4	na na na YES								
5	na	na	na	na	YES				

CATEG. DESTIN	CATEGORY OF ORIGIN						
	1	2	3	4	5		
1	YES	na	na	na	na		
2	YES	na	na	na	na		
3	NO	NO	NO	na	na		
4	YES	na	na	na	na		
5	NO	NO	NO	NO	NO		

#### NEED OF CERTIFICATE FOR INTRODUCING THE CONSIGNMENT



## ORNAMENTAL AQUATIC ANIMALS ORIGINATED FROM AND INTENDED FOR ORNAMENTAL FACILITIES (EC reg.1251/2008- Art. 4)



#### **TRACES**



- •Ornamental <u>susceptible</u> species
- Originated from an EU MS

- Closed facilities
- Located in a different EU MS where the whole territory or certain zones/compartments are free or have a surveillance programme for one/more listed diseases

NOTE:

ORNAMENTAL AQUATIC ANIMALS KEPT IN CLOSED FACILITIES SHALL NOT BE RELEASED INTO OPEN FARMS/ WILD WITHOUT THE AUTHORIZATION OF CA

NO NEED FOR TRACES WHEN NOT SUSCEPTIBLE (VECTORS AND INNOCENT SPECIES) ARE MOVED AND WHERE FISH ARE INTENDED FOR NOT-FREE MS /ZONES/COMPARTMENTS or OR WHERE NO SURVEILLANCE/ERADICATION PROGRAMMES ARE IN PLACE



# AQUACULTURE ANIMALS INTENDED FOR FARMING, RELAYING AREAS, PUT AND TAKE FISHERIES, OPEN ORNAMENTAL FACILITIES AND RESTOKING (EC reg.1251/2008- Art. 5)



Susceptible/vector

- Farming, relaying areas, PT fisheries , open ornamental , restoking
- Located into a MS,zone, compartment declared free for one or more listed diseases or for which a surveillance/eradication applies

NOTE: "INNOCENT" species are not considered
No certification needed when animals are introduced in
MS/zone/compartment which are not free for one or more listed
diseases to which the introduced species is susceptible/vector or
do not have any surveillance programme



### PART C: List of species susceptible to diseases for which national measures are approved under Decision 2010/221/EU

Disease	Susceptible species		
Spring Viraemia of Carp (SVC)	Bighead carp (Aristichthys nobilis), goldfish (Carassius auratus), crucian carp (Carassius carassius), grass carp (Ctenopharyngodon idellus), common carp and koi carp (Cyprinus carpio), silver carp (Hypophthalmichthys molitrix), sheatfish (Silurus glanis), and tench (Tinca tinca), Orfe (Leuciscus idus)		
Bacterial kidney disease (BKD)	Family: Salmonidae		
Infectious pancreatic necrosis virus (IPN)	Rainbow trout ( <i>Oncorhynchus mykiss</i> ), brook trout ( <i>Salvelinus fontinalis</i> ), brown trout ( <i>Salmo trutta</i> ), Atlantic salmon ( <i>Salmo salar</i> ), and Pacific salmon ( <i>Oncorhynchus spp.</i> ) and whitefish ( <i>Coregonus lavaretus</i> )		
Infection with Gyrodactilys salaris	Atlantic salmon (Salmo salar), rainbow trout (Oncorhynchus mykiss), Arctic char (Salvelinus alpinus), North American brook trout (Salvelinus fontinalis), grayling (Thymallus thymallus), North American lake trout (Salvelinus namaycush) and brown trout (Salmo trutta).'		

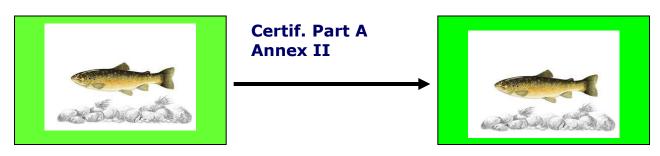


#### ANNEX I DEC. 2010/221/EC (FREE STATUS)

DISEASE	MEMBER STATE	CODE	TERRITORY
SPRING VIREMIA OF CARPS	DENMARK	DK	WHOLE COUNTRY
	IRELAND	IE	WHOLE COUNTRY
	FINLAND	FI	WHOLE COUNTRY
	SWEDEN	SE	WHOLE COUNTRY
	HUNGARY	HU	WHOLE COUNTRY
	UNITED KINGDOM	UK	Northern Ireland Isle of Man Isle of Jersey Isle of Guernsey



AQUACULTURE ANIMALS INTENDED FOR FARMING, RELYING AREAS, ORNAMENTAL OPEN FARMS AND RESTOKING, IN MS, ZONES OR COMPARTMENTS SUBJECT TO DISEASE CONTROL MEASURES APPROVED IN ACCORDANCE TO THE DECISION 2010/221/EC (REGULATION 2010/346 - Art. 8 bis)



- •Susceptible species included in list PART C, DEC. 2010/221/CE)
- Farming, relaying areas, PT fisheries, open ornamental, restoking
- Located in a EU MS/ territory included in decision 2010/221/ (additional garantees)

**NOTE:** VECTOR AND "INNOCENT" species are not considered





#### **ANNEX II, PART A**

CERTIFICATE MODEL FOR PLACING ON THE MARKET OF AQUACULTURE ANIMALS FOR FARMING, RELAYING, PUT AND TAKE FISHERIES, OPEN ORNAMENTAL FACILITIES AND RESTOCKING

#### **II.1 General Health requirements**

No clinical signs during the inspection (72/24 hours of loading)

In case of eggs and molluscs they come from a farm or mollusc farming area without disease problems

In the case of wild aquatic animals, according to the best of my knowledge and belief are clinically healthy];

Not subject to any prohibitions due to unresolved increased mortality;

Not intended for destruction or slaughter for the eradication of diseases;

Comply with the requirements for placing on the market laid down in Council Directive 2006/88/EC;



II.2 Requirements for species susceptible to VHS, IHN, Infectious salmon anaemia ISA, Koi herpes virus KHV, Marteilia refringens, Bonamia ostreae, and/or White spot disease

Origin from a MS, zone or compartment declared free

or

Quarantine (wild aquatic animals)

II.3 Requirements for vector species to VHS, IHN, ISA, KHV, Marteilia refringens, Bonamia ostreae, and/or White spot disease

Origin from a MS, zone or compartment declared free

or

Quarantine (2008/946/EC).





II.7 Requirements for species susceptible to Spring vireamia of carp (SVC), Bacterial kidney disease (BKD), Infectious pancreatic necrosis virus (IPN) and Infection with Gyrodactylus salaris (GS)

#### IPN and BKD:

origin from a MS/zone/compartment/free according to the equivalent requirements laid down in Chapter VII of Directive 2006/88/EC],

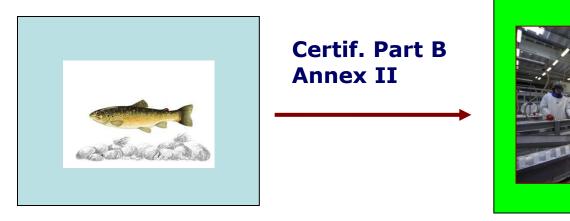
#### SVC, GS:

complies with requirements for disease freedom laid down in the relevant OIE Standard.





## AQUACULTURE ANIMALS AND PRODUCTS THEREOF INTENDED FOR FURTHER PROCESSING BEFORE HUMAN CONSUMPTION (EC reg.1251/2008- Art. 6)





Susceptible

•Free MS/ zone/compartment or have a surveillance programme for a listed disease

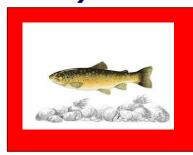
NOTE: "Innocent" and vectors species are not considered Susceptible fish eviscerated before dispatch or packed in retail-sale packages are not covered by 1251/2008 (REG.853/2004).



# AQUACULTURE ANIMALS AND PRODUCTS THEREOF LEAVING MS, ZONES AND COMPARTMENTS SUBJECT TO DISEASE CONTROL MEASURES INCLUDING ERADICATION PROGRAMMES (EC reg.1251/2008- Art. 8) - 1



Certif. Part A Annex II



- Aquaculture animals
- •Origin from EU MS, zone, compartment subject to disease control measures,
- •Exemption from disease control measures granted





Certif. Part B Annex II



•Intended for further processing before human consumption



# AQUACULTURE ANIMALS AND PRODUCTS THEREOF LEAVING MS, ZONES AND COMPARTMENTS SUBJECT TO DISEASE CONTROL MEASURES INCLUDING ERADICATION PROGRAMMES (EC reg.1251/2008- Art. 8)- 2



Certif. Part A Annex II



- Susceptible(farming and processing) /vector (farming)
- Origin from an EU MS, zone, compartment with an eradication programme approved in accordance with art. 44 of directive 2006/88

Put & take fisheries , open ornamental , restocking

Intended for farming, relaying areas,

Certif. Part B Annex II



NOTE: Fish eviscerated before dispatch or packed in retail-sale packaged are not covered (REG.853/2004).

 Intended for further processing, purification centres, dispatch centres, before human consumption



#### **CONDITIONS FOR IMPORTS**

IMPORT OF AQUACULTURE AND ORNAMENTAL FISH IS ONLY ADMITTED BY THIRD COUNTRIES INCLUDED IN ANNEX III OF REGULATION (EC) No 1251/2008







## LIST OF THIRD COUNTRIES, TERRITORIES, ZONES AND COMPARTMENTS ANNEX III OF REGULATION (EC) No 1251/2008

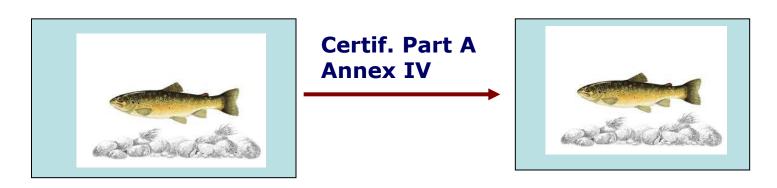
C	CONTRY		TAXA		ZONE/COMPARTMENT	
Code	Name	Fish	Molluscs	Crustacea	Code	Description
US	United States	X		X	US 0 D	WHOLE COUNTRY
		X			US 1 <sup>E</sup>	WHOLE COUNTRY except New York, Ohio, Illinois, Michigan, Indiana Wisconsin, Minnesota Pennsylvania
			X		US 2	Humbold bay (California )
					US 3 Netarts Bay (Oregon)	
					US 4	Wilapa Bay Toten inlet, Oakland bay, Quilcence bay, DAbob bay (Washington)
					US 5	

D: not applicable to fish susceptible/vectors to VHS E: only applicable to fish susceptible/vectors to VHS





## AQUACULTURE ANIMALS INTENDED FOR FARMING, PUT AND TAKE FISHERIES, OPEN ORNAMENTAL FACILITIES (EC reg.1251/2008- Art. 10)



- Aquaculture animals
- Origin from third Countries, zone /compartments listed in Annex III (REG 1251- 2008)

•Intended for farming, relaying areas, PT fisheries, open ornamental facilities, restoking





### ORNAMENTAL AQUATIC FISH INTENDED FOR CLOSED ORNAMENTAL FACILITIES (EC reg.1251/2008- Art. 11)



Certif. Part B Annex IV

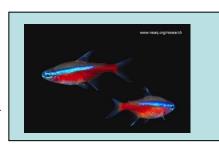


**Closed systems** 

- Susceptible species
- •Origin from third Countries, zone /compartments listed in Annex III (REG 1251- 2008)
- •Susceptible to EUS from OIE MC
- ( < December 2012)



Certif. Part B Annex IV



- Vectors / innocent species
- •Origin from listed Countries or from OIE MC





## AQUACULTURE ANIMALS AND PRODUCT THEREOF INTENDED FOR HUMAN CONSUMPTION

(EC reg.1251/2008- Art. 12)

- Aquaculture animals
- Origin from third countries, territories, zones and compartments included in a list drawun up in accordance with regulation 854/2004

#### **CONSIGNMENTS SHALL:**

BE ACCOMPANIED BY A JOINT PUBLIC AND ANIMAL HEALTH CERTIFICATE







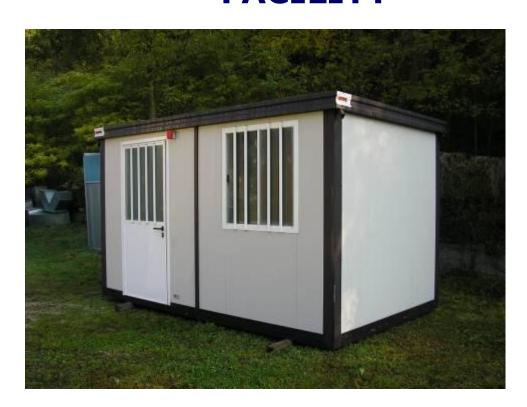
#### **QUARANTINE**

Decision 2008/946/EC

- ✓ QUARANTINE FACILITY IS AN AUTHORIZED FACILITY WHICH MAY CONTAINS ONE OR MORE UNITS WITH ANIMALS OF THE SAME CONSIGNMENT HAVING THE SAME HEALTH STATUS
- ✓ THE FACILITY MUST BE UNDER SUPERVISION OF CA.
- ✓ THE FACILITY OPERATES ON PROTECTED WATER SOURCE AND EFFLUENT TREATMENTS. ACCESS IS LIMITED AND ONLY FOLLOWING STRICT HYGIENE MEASURES
- ✓ A QUALIFIED AQUATIC ANIMAL HEALTH PROFESSIONAL SHALL BE DESIGNATED BY THE CA TO CARRY OUT SPECIFIC CONTROLS
- ✓ SENTINEL FISH MAY BE USED FOR DETECTION OF SUBCLINICAL INFECTION IN VECTOR SPECIES
- ✓ FISH SHALL BE QUARANTINED FOR AT LEAST 60 DAYS ( 30 VECTORS)
- ✓ A LIST OF QUARANTINE FACILITIES SHALL BE AVAILABLE FROM THE COMMISSION TO MS
- ✓ QUARANTINE MAY BE CARRIED OUT IN FACILITIES LOCATED IN THIRD COUNTRIES FOR IMPORTS



## **QUARANTINE FACILITY**



By courtesy dr. F. Borghesan





#### PRACTICAL APPLICATION

Decision 2008/946/EC

SUSCEPTIBLE WILD FISH CAPTURED IN NON FREE ZONES MAY BE INTRODUCED IN FREE COMPARTMENTS FOLLOWING A SUITABLE QUARANTINE PERIOD (60 DAYS)

VECTOR SPECIES INTENDED FOR AQUACULTURE, RELYING, PUT AND TAKE FISHERIES MAY BE INTRODUCED /IMPORTED IN A MS/ZONE/COMPARTMENT FREE FOLLOWING A SUITABLE QUARANTINE PERIOD (30 DAYS)

THE QUARANTINE MAY BE PERFORMED IN THE THIRD COUNTRY OR IN THE MS





#### WILD SPECIES

Wild species at risk of extinction and for which recovery programs exist n Italy:

- MARBLE TROUT (Salmo trutta marmoratus)
- SARDINIAN TROUT (Salmo trutta macrostigma)
- LAKE TROUT (Salmo trutta lacustris)
- GRAYLING (Thymallus thymallus)
- WHITE FISH (Coregonus lavaretus)

May be captured in the wild in non free areas and introduced in free compartments provide a suitable quarantine period is performed (60 days)





#### **HEALTH CONTROL PROGRAMS**





#### **HEALTH CONTROL PROGRAMS**

HEALTH CONTROLS	SUBJECT	RESPONSABILITY	FREQUENCE
RISK-BASED SURVEILLANCE ART.10	ANY INCREASE OF MORTALITY	FARMER	ACCORDING TO THE RISK LEVEL
OFFICIAL CONTROLS art. 8 -	REGULAR INSPECTION	COMPETENT AUTHORITY	ACCORDING TO THE RISK LEVEL
ACHIEVEMENT OF	LISTED DISEASES	COMPETENT	Dec.2001/183/C
FREE STATUS		AUTHORITHY	E
MAINTENANCE OF FREE STATUS	LISTED DISEASES	COMPETENT AUTHORITY	Dec.2001/183/C E

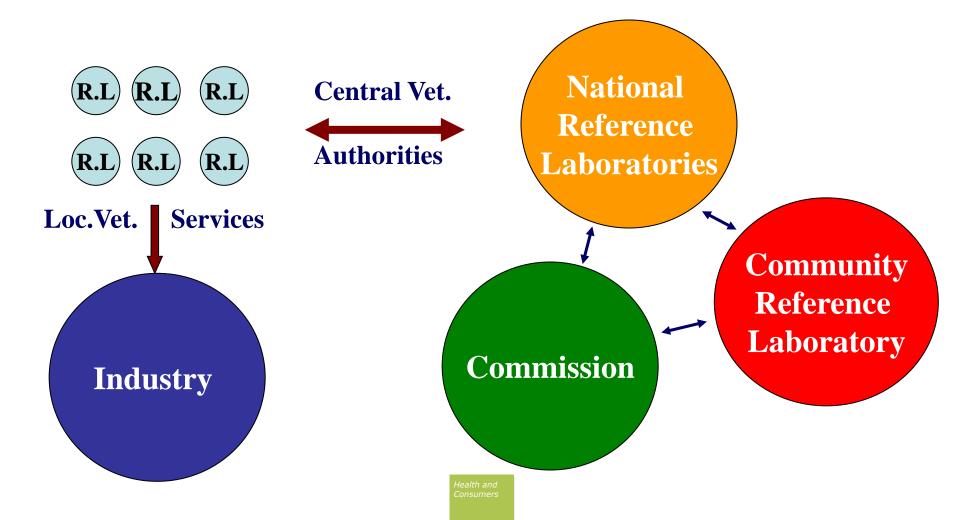


#### NATIONAL AND COMMUNITY LABORATORIES





#### CONTROL NETWORK FOR NOTIFIABLE DISEASES IN EU





## DESIGNATION OF COMMUNITY REFERENCE LABORATORIES

CRL's are designated under Art 55 Directive 2006/88/and must fulfill the following requirements:

HAVE QUALIFIED STAFF, EQUIPMENTS, REFERENCE MATERIALS TO UNDERTAKE TASKS, APPROPRIATE ADMINISTRATION, INTERNATIONAL SCIENTIFIC KNOWLEDGE AND CONTACTS

NEED TO OPERATE, BE ASSESSED AND ACCREDITED WITH THE FOLLOWING EU STANDARDS: EN ISO/IEC 17025, EN 45002, EN 45003





## FUNCTIONS AND DUTIES OF COMMUNITY REFERENCE LABORATORIES

COORDINATE IN CONSULTATION WITH THE COMMISSION THE METHODS EMPLOYED IN THE MS FOR DIAGNOSING CONCERNED

ORGANIZING PERIODIC RING TRIALS
RETAINING EXPERTISE ON THE RELEVANT DISEASE PATHOGEN
TYPING STORING SUPPLYING STRAINS OF THE PATHOGEN OF THE
RELEVANT DISEASES TO FACILITATE THE DIAGNOSTIC SERVICE IN
THE COMMUNITY

SUPPLYING STANDARD SERA AND REFERENCE REAGENTS TO THE NRL

ASSIST MS IN DIAGNOSIS OF OUTBREAKS OF RELEVANT DISEASES

COLLABORATE WITH THE OIE REFERENCE LABS

COLLATE AND FORWARD INFORMATION ON ENDEMIC AND EXOTIC DISEASES

FACILITATE THE TRAINING OF EXPERTS









#### **LIST OF NRLs FOR FISH DISEASES -1**

**AUSTRIA**: University of Wien, Wien

BELGIUM : Centre d'Etudes e de Recherche Vet et Agron.(CERVA),

Brussels

**CZECH REP.**: Veterinary Research Institute, Brno

CYPRUS : Istituto Zooprofilattico Sperimentale delle Venezie (IZS-VE) ,

**Padua** 

DENMARK : National veterinary Institute, Technical University of Denmark, Aarhus

(CRL)

**ESTONIA**: Talliin Veterinary and Food LAboratory, Tallin

FINLAND: Finnish Food Safety Authority, Helsinki

FRANCE : Agence National de Securitè sanitaire (ANSES), Brest

**GERMANY**: Federal research Institute for Animal Health, Insel Riems

**GREECE**: Center of Athens Veterinary Institutions, Athens

**HUNGARY**: Central Agriculture Office Veterinary diagnostic directorate, Budapest

IRELAND : Marine Institute, Fish Health Unit, Galway

ITALY : Istituto Zooprofilattico Sperimentale delle Venezie (IZS-VE) , Padua

LATVIA: Inst. Food Safety nimal disease diagnostic laboratory, Riga LITHUANIA: Nat. Food and Veterinary Risk Assessment Institute, Vilnius

**LUXEMBOURG: CERVA, Brussels** 

NETHERLAND: Central veterinary institute of wageningen Lelystad

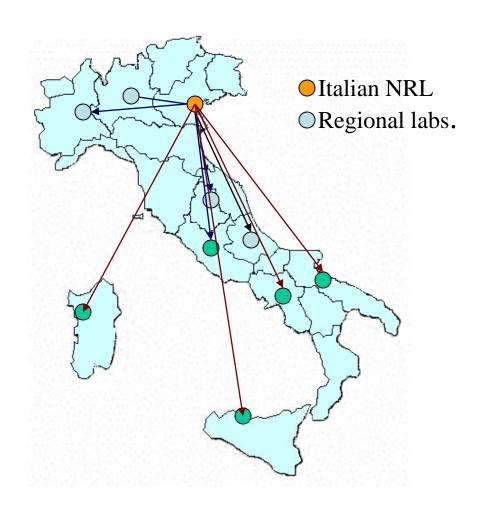
POLAND: National veterinary research institute, Pulawy
PORTUGAL: Lab. Nacional Investigacao Veterinaria, Lisboa
SLOVAKIA: State Veterinary And Food Inst., Dolny Kubin
SLOVENIA: Nat. Vet. Institute, university of Ljubljana
SPAIN: Lab. Central de Veterinaria, (MARM) Madrid

SWEDEN : National Veterinary Institute (SVA), Uppsal England & W. : CEFAS Weymouth Laboratory , Weymouth

Scotland : Marine Scotland Science , Aberdeen



COORDINATE, IN
CONSULTATION WITH
THE RELEVANT CRL THE
METHODS EMPLOYED IN
MEMBER STATES FOR
DIAGNOSING THE
DISEASE CONCERNED
UNDER THEIR
RESPONSIBILITY





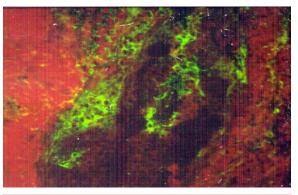


## FUNCTIONS AND DUTIES OF NATIONAL REFERENCE LABORATORIES (NRL)

#### CONFIRM THE DIAGNOSIS OF RELEVANT DISEASES



FACILITATE THE TRAINING OF EXPERTS





ORGANISE PERIODIC COMPARATIVE TESTS AMONG AUTHORISED LABS



#### THANK YOU FOR YOUR ATTENTION

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