



Sustainable fishbreeding and reproduction



Hans Komen, Michael New, Pierrick Haffray

Wageningen University, European Aquaculture society, SYSAAF (France)



Objectives:

Open a dialogue between farm animal reproduction and selection players and society representatives

- Explain farm animal breeding and reproduction
- Identify and discuss dilemmas in sustainability
- Indicate future scenarios



Current status of European aquaculture

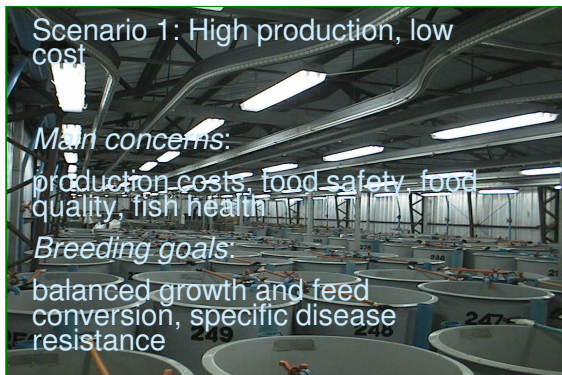
- **Increased consumption of aquatic products and necessity to preserve endangered wild stocks**
- **Currently more than 25 species cultured: Atlantic salmon, rainbow trout, sea bream, sea bass, common carp, turbot, halibut, cod, sole, eel, catfish, tilapia.**
- **Expected increase + 7,4 % EU production / year**
- **Most species are Carnivorous; few are omnivorous**



Scenario 1: High production, low cost

Main concerns:
production costs, food safety, food quality, fish health

Breeding goals:
balanced growth and feed conversion, specific disease resistance



Scenario 2: Niche markets for exclusive fish species

Main concerns:
food safety, fish health, fish welfare

Breeding goals:
growth with maintenance of natural characteristics; natural reproduction.



Welfare dilemmas:

Cannibalism as part of natural fish behavior?

What is high fish density?

Can carnivores eat plant ingredients?

Group or individual welfare?

Conclusions

Discussion between society and breeders
Must be continued.

Alternatives need to be worked out in terms
Of economic sustainability.

