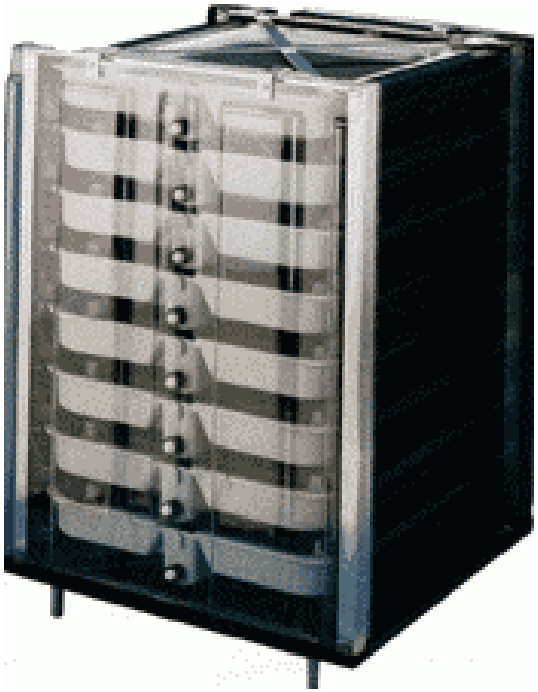
Eggs

- “Green eggs” = eggs from 48 hours post-spawn to eyed stage
- Eyed eggs can be shipped in plastic bags at 3~5 ℃ (37.40~41.00° F)
- Ship eggs wrapped in damp cheese cloth
- Chill with ice and let water drip onto eggs

Egg Incubation



Receiving Eyed Egg, Fry, Fingerlings and Older Age Groups

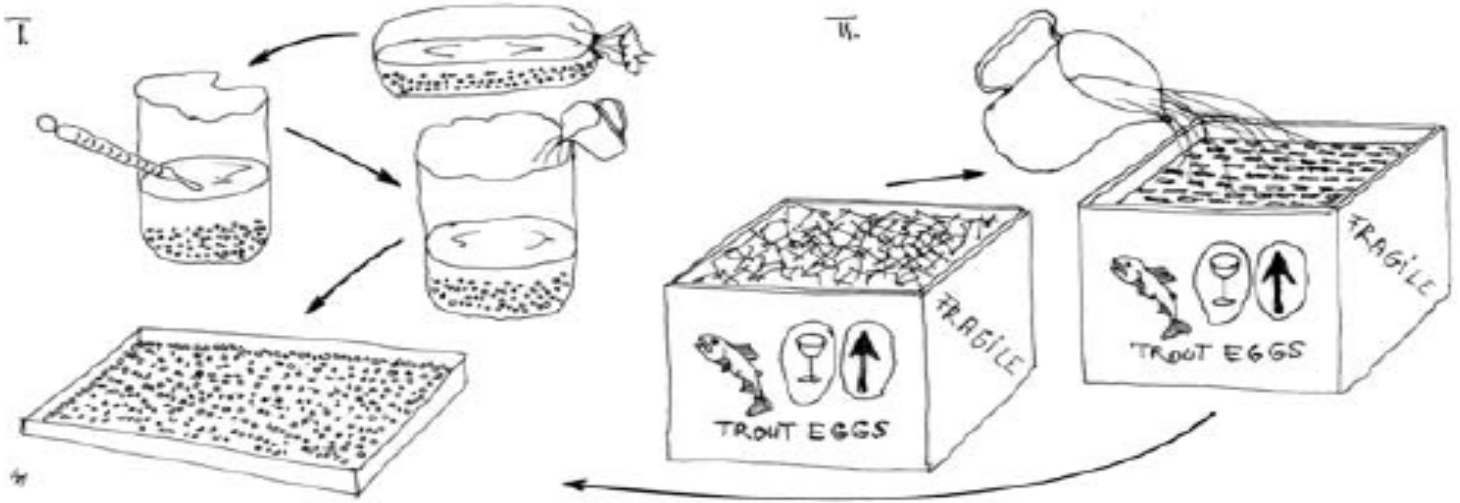
- On many trout farms, production starts when eyed eggs, fry or fingerlings arrive from another farm (Figures 35 and 36). Before the actual arrival of eggs, all of the rearing devices should be cleaned and disinfected. After the preparation of the devices, their water supply should also be checked.

Receiving Eyed Egg, Fry, Fingerlings and Older Age Groups

- Trout are very sensitive to changes in water te mperature, especially when it is from cold to warm. The smaller the fish, the mo re sensitive they are to thermal shock in general and to warm thermal shock in particula r. Therefore, it is important to raise or lower the temperature of the transport water slo wly, in steps of 0.5 ° C/min in order to ensure safe adjusting (Molony, 2001).

Receiving Eyed Egg, Fry, Fingerlings and Older Age Groups

FIGURE 35
Steps in receiving and unpacking eyed eggs



Eyed eggs are transported either: **I.** in plastic bags with water and oxygen; or **II.** hibernated in insulated box on trays with ice. The steps of *tempering** the eggs and unpacking are similar in both cases.

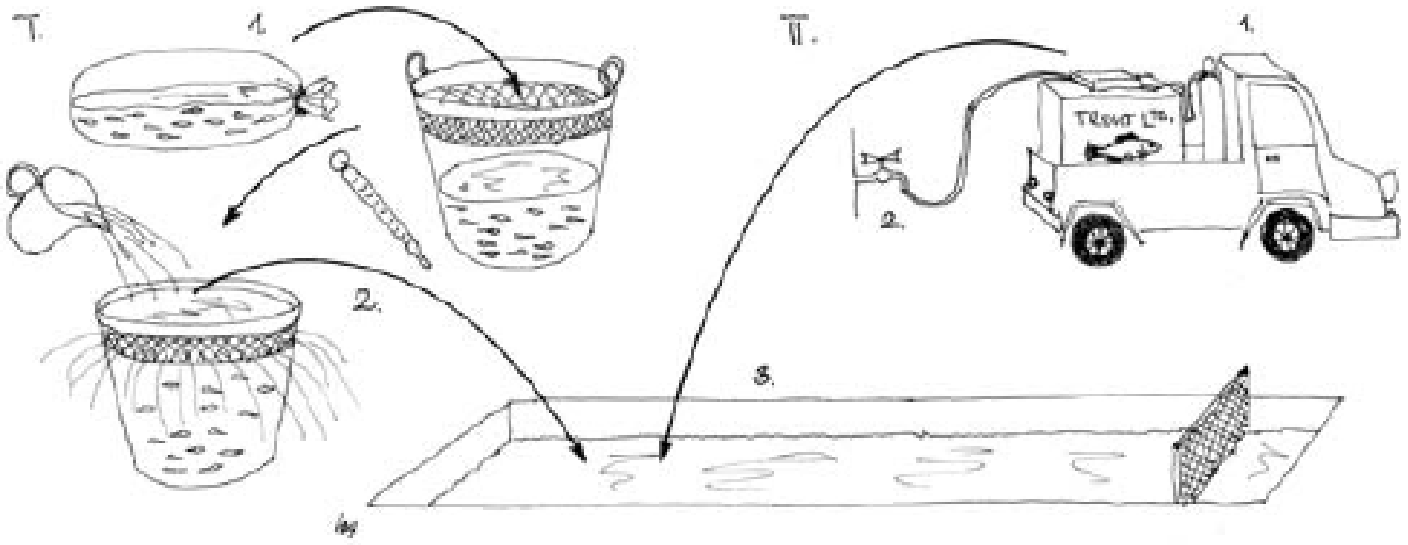
1. Measure both the temperature of the transport water and the hatchery water. Gradually adjust the temperature of the transport water to that of the hatchery water. As soon as the temperatures are equalized, the eyed eggs should be placed into the trays after disinfection, as prescribed by the supplier.

2. Gradually adjust the temperature of the eyed eggs in the transporting box by carefully adding hatchery water through the ice found on the top tray. As soon as the box is filled with hatchery water (the temperatures are equalized), the eyed eggs should be placed onto the hatching trays.

Receiving Eyed Egg, Fry, Fingerlings and Older Age Groups

FIGURE 36

Steps in receiving and unpacking or unloading fry, fingerlings or older age groups of trout



Fry or fingerlings are transported either in plastic bags or in containers. The tempering procedure is the same in both cases.

1. Measure the temperature of the transport water and the receiving water. **2.** Gradually adjust the temperature of the transport water to the temperature of the receiving water. **3.** As soon as the temperatures are equalized, the fry or fingerlings may be transferred to their new place.

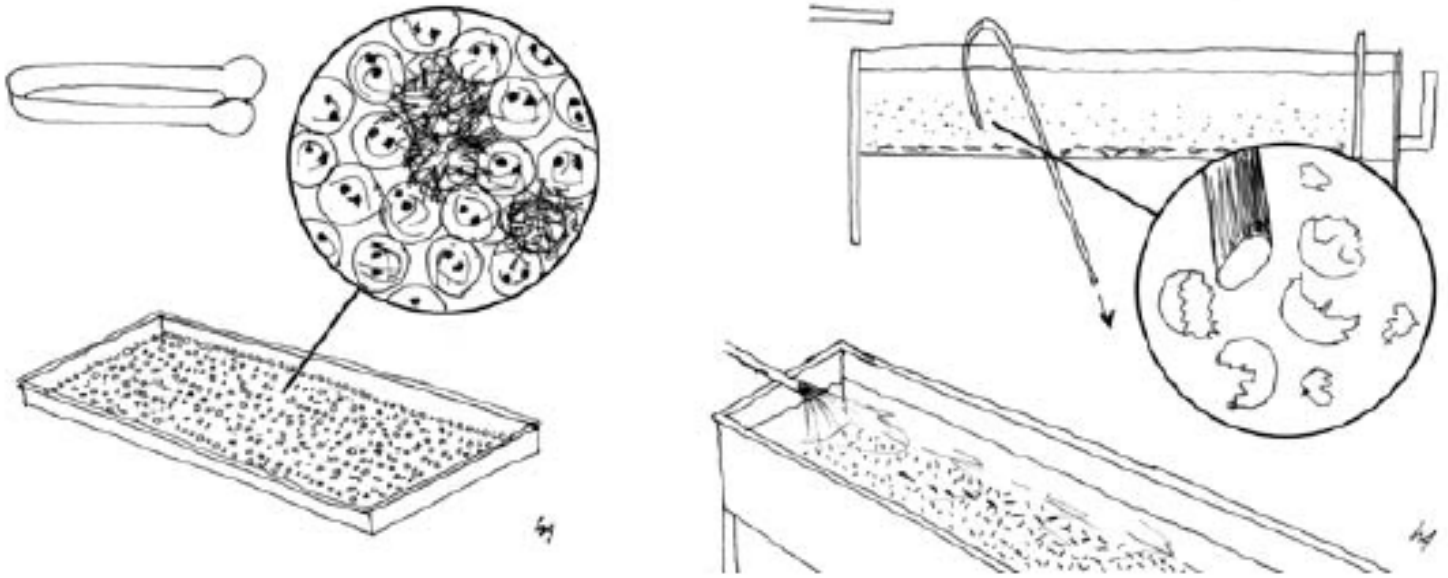
Handling of Eggs and Fish of Different A ge Groups

- The handling of eggs and fish of different age groups is a job that includes many diverse actions such as taking care of incubating eggs, removing dead eggs, fry and fish, as well as transferring and grading fish.

- Cleaning of the rearing devices during incubatio n of eggs and after hatching is done with special eggincers and siphons (Figure 37).

Cleaning of the rearing devices during incubation of eggs and af ter hatching is done with special egg-incers and siphons

FIGURE 37
Cleaning of rearing devices



1. Eggs should not be disturbed before the stage of eyed egg. Dead eggs covered with fungus should be removed with special pincers. **2.** After hatching, the shells of eggs, dead eggs and the dead larvae should be siphoned from the rearing devices.

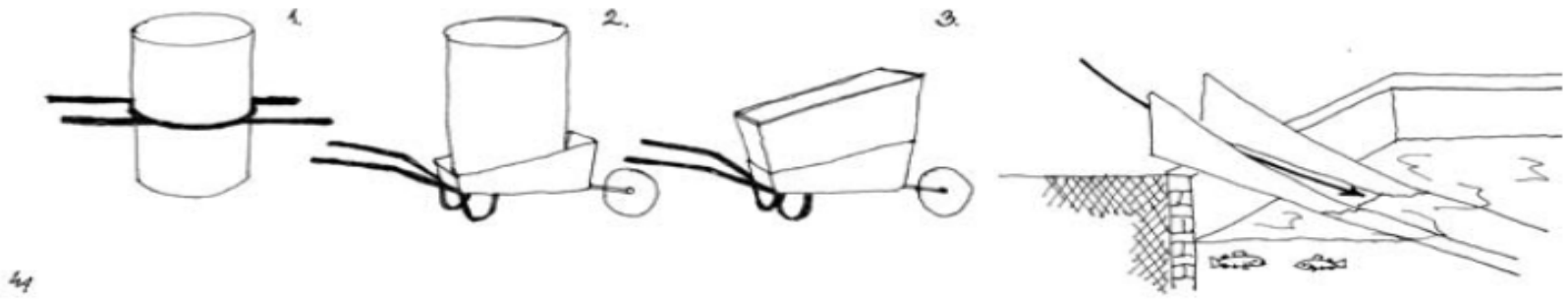
How to relocate fish

- Relocation of fish must be done in water regardless of the size and age of fish (Figure 39). Trout carried without water cannot survive the shock. It is also important to release fish gently. Therefore, the bucket or basin in which fish are transferred should be submerged into the water where the fish are released. The gentle releasing into large concrete tanks and earth ponds should be done using a slip channel (slider).

How to relocate fish

FIGURE 39
How to relocate fish

Transferring fry (**I.**) and fingerlings (**II.**) should always be completed quickly in water. **Stocking procedure includes:** checking and equalizing the water temperatures if needed; releasing the fish gently into the new place.



Transfer of larger fish should also be completed quickly in water. **Stocking procedure includes:** checking and equalizing the water temperatures if needed; releasing the fish gently into the new location with the help of a fish-slider.

1.–3. Containers for carrying live fish.

Size Grading

- Grading of growing fish is a basic job on trout farms. When grading, the entire stock of a tank or pond is screened and regrouped according to the size of the fish.

- Without grading, the larger specimens attack the smaller ones, pinching/biting their tail and fins, and it can also end in cannibalism.

- There are mechanized and manual graders. Out of the manual graders, hand graders are used for small fish, while table graders are used for sorting large fish.