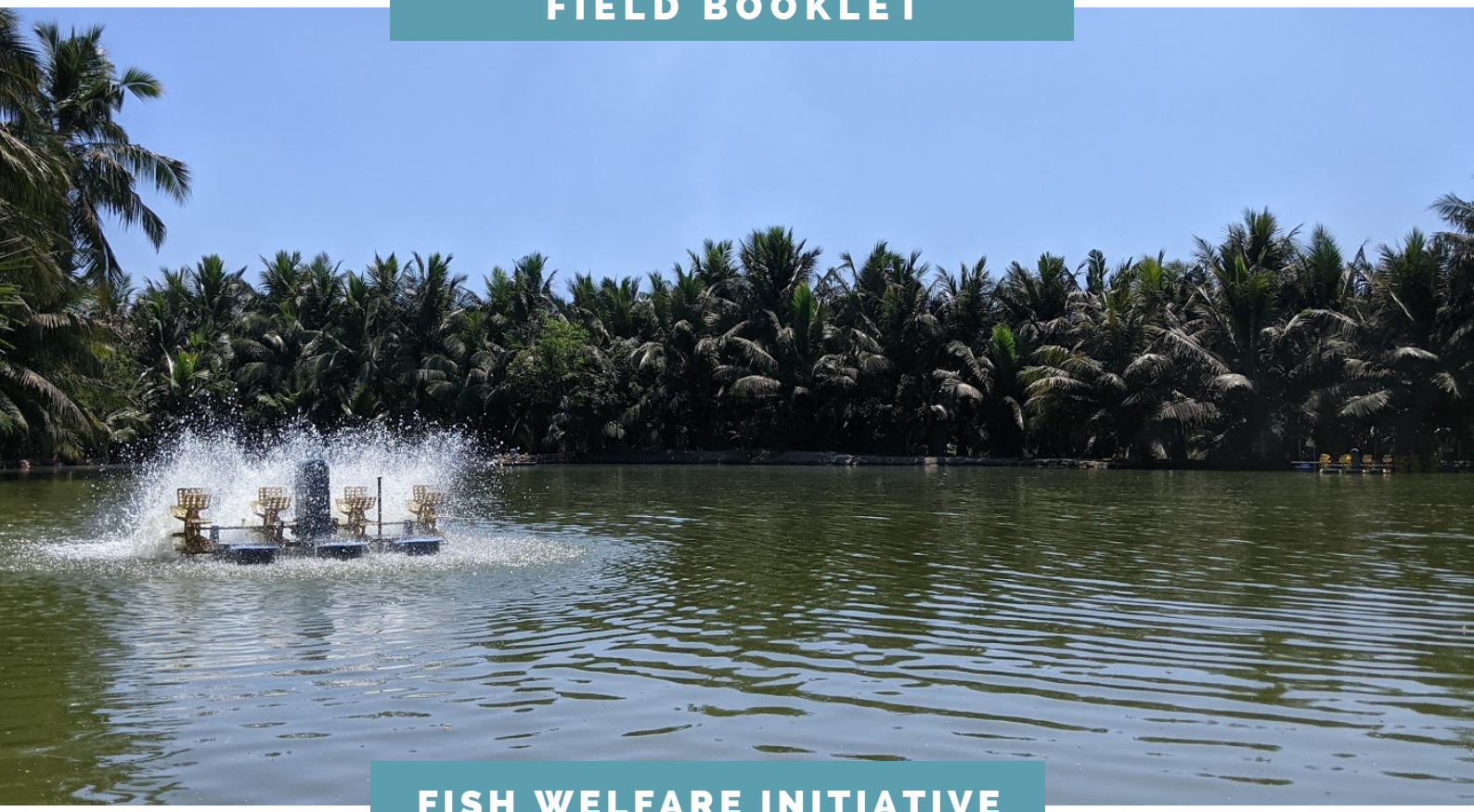
POND PREPARATION TO IMPROVE CARP WELFARE

FIELD BOOKLET



FISH WELFARE INITIATIVE

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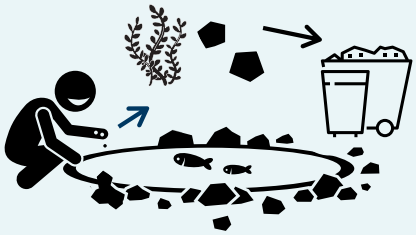
POND PREPARATION

Newly constructed or renovated ponds need to be prepared before every production cycle to ensure good water quality facilitate high fish welfare.

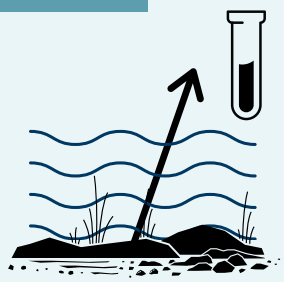
STEP 1



DEBRIS & WEEDS

Remove excessive plants by hand or with machines.

STEP 2



ANALYZE SOIL

Collect samples from the pond bottom.

STEP 3

DRAIN POND ENTIRELY

The soil needs to be dry enough to crack. If there are wild fish in the pond, relocate them or do not drain the pond.

STEP 4

DEMUD POND

Remove mud and mix the soil.

STEP 5

DRY POND BOTTOM

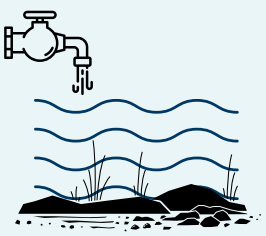
Dry pond for at least 15 to 21 days to kill pathogens.

STEP 6

DISINFECT AND LIME

Using limestone/dolomite, quick lime, or gypsum, disinfect your pond.

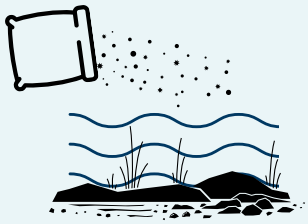
STEP 7



FILL WITH WATER

Close the pond and fill it with clean, fresh water.

STEP 8



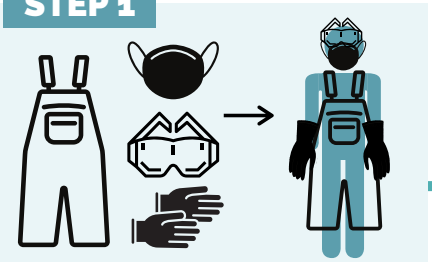
FERTILIZE

5-7 days after liming and 8-10 days before stocking.

LIMING YOUR POND

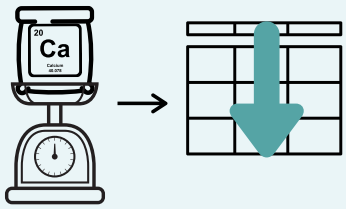
STEPS TO LIME A POND

STEP 1



Put on safety equipment.

STEP 2



Use amounts of lime as noted below.

STEP 3

Spread lime with direction of the wind, ensuring that it covers all pond surfaces.

STEP 4

Lime should be left in the pond for at least 24 hours before filling with water.

STEP 5

Do not apply the lime on a rainy day, since the concentration could be diluted, making it ineffective.

WHERE TO GET AND WHEN TO USE DIFFERENT LIME

Name	Structure	Where to get	When to use
Limestone	CaCO3	Available as agricultural lime in the market.	Use if water pH < 7 and hardness and alkalinity < 20 mg /L.
Burnt lime or Quicklime	CaO	Available as limestone in the market.	Only in **dry ponds**. Quicklime increases pH rapidly and is very alkaline.
Slaked lime or hydrated lime	Ca(OH)2	Available in the market in powder form.	When pH < 4.5
Dolomite	CaMg(CO3)2	More availability in shrimp farming area.	Use in ponds with a lot of organic matter.
Gypsum	CaSO4.2 H2O	Available in the markets of some areas.	Gypsum is very effective in controlling turbidity. Use if water pH is high.

QUICKLIME PORTIONING

Type of soil / pH	New pond	Old pond
Loam / 5-7	250 kg / ha	500 kg / ha
Clay / 4-6	1000 kg / ha	1500 kg / ha

MORE TIPS

- If the pH of the soil at the bottom of the pond is lower than 6.5, lime must be applied.
- Late fall and early spring are the best times to apply lime.
- Liming is more effective on sunny days.
- **If there are fish in the pond** the required amount of lime should be divided into 2 – 3 portions. Each portion should be soaked in the water for at least 12 hours and applied at 2-3 days intervals.