

| <b>Fish</b>     | <b>Condition</b>   | <b>Dosage</b>   | <b>Water Condition</b>  | <b>Expected Results</b>                                   |
|-----------------|--|---|---|---|
| Silver Carp (F) | <ul style="list-style-type: none"> <li>• 2 1/2-3 years old</li> <li>• 4-5kg</li> <li>• Healthy</li> <li>• Swollen belly</li> <li>• Genital is pinkish in colour</li> </ul>   | A single dose of 0.3ml per kg   | <ul style="list-style-type: none"> <li>▪ Temp. 26-28°C</li> <li>▪ pH 6-7</li> <li>▪ DO 5-7mg/l</li> </ul> | Should ovulate between 8-10hrs                            |
| Silver Carp (M) | <ul style="list-style-type: none"> <li>• 2-3years old</li> <li>• 3-4kg</li> <li>• Healthy</li> <li>• Rough pectoral fin</li> <li>• Should ooze thick milt when slight pressure is applied on belly towards genital opening</li> </ul>                | A single dose of 0.2ml per kg   | <ul style="list-style-type: none"> <li>▪ Temp. 26-28°C</li> <li>▪ pH 6-7</li> <li>▪ DO 5-7mg/l</li> </ul> | Should spermiate between 8-10hrs                          |
| Grass Carp (F)  | <ul style="list-style-type: none"> <li>• 2 1/2-3 years old</li> <li>• 4-5kg</li> <li>• Healthy</li> <li>• Swollen belly but this is difficult to see because this fish has a thick abdominal wall</li> <li>• Genital is pinkish in colour</li> </ul> | A single dose of 0.4ml per kg   | <ul style="list-style-type: none"> <li>▪ Temp. 26-28°C</li> <li>▪ pH 6-7</li> <li>▪ DO 5-7mg/l</li> </ul> | Should ovulate between 8-12hrs                            |
| Grass Carp (M)  | <ul style="list-style-type: none"> <li>• 2 1/2-3years old</li> <li>• 3-4kg</li> <li>• Healthy</li> <li>• Rough pectoral fin</li> <li>• Should ooze thick milt when slight pressure is applied on belly towards genital opening</li> </ul>            | A single dose of 0.2 ml per kg  | <ul style="list-style-type: none"> <li>▪ Temp. 26-28°C</li> <li>▪ pH 6-7</li> <li>▪ DO 5-7mg/l</li> </ul> | Should spermiate between 8-10hrs                          |
| Pangasius (F)   | <ul style="list-style-type: none"> <li>• 2 1/2-3 years old</li> <li>• 4-5kg</li> <li>• Healthy with swollen belly</li> <li>• Genital is pinkish in colour and serrated</li> </ul>  | 1 <sup>st</sup> dose: 0.2ml per kg.<br><b>After 6 hrs;</b><br>2 <sup>nd</sup> dose: 0.3 ml per kg | <ul style="list-style-type: none"> <li>▪ Temp. 26-28°C</li> <li>▪ pH 6-7</li> <li>▪ DO 5-7mg/l</li> </ul> | Should ovulate between 8-12hrs after 2 <sup>nd</sup> dose |

|                 |  |  |   |   |
|-----------------|--|--|---|---|
| Pangasius (M)   | <ul style="list-style-type: none"> <li>• 2 -3years old</li> <li>• 3-4kg</li> <li>• Healthy</li> <li>• Genital protruding</li> </ul>  | A single dose of 0.3ml per kg is <b>given only when the female is given 2<sup>nd</sup> dose</b>  | <ul style="list-style-type: none"> <li>▪ Temp. 26-28°C</li> <li>▪ pH 6-7</li> <li>▪ DO 5-7mg/l</li> </ul> | Should spermiate between 8-10hrs  |
| Mystus (F)      | <ul style="list-style-type: none"> <li>• 2- 2 ½ years old</li> <li>• 2-3 kg</li> <li>• Healthy with swollen belly</li> <li>• Genital is pinkish in colour and serrated</li> </ul>  | 1 <sup>st</sup> dose: 0.2 ml per kg<br>After 6 hrs;<br>2 <sup>nd</sup> dose: 0.3 ml per kg       | <ul style="list-style-type: none"> <li>▪ Temp. 26-28°C</li> <li>▪ pH 6-7</li> <li>▪ DO 5-7mg/l</li> </ul> | Should ovulate between 15-18 hrs  |
| Mystus (M)      | <ul style="list-style-type: none"> <li>• 1.5-2 years old</li> <li>• 2-2.5 kg</li> <li>• Healthy</li> <li>• Genital is pinkish and also protruding</li> </ul>                       | A single dose of 0.3 ml per kg is <b>given only when the female is given 2<sup>nd</sup> dose</b> | <ul style="list-style-type: none"> <li>▪ Temp. 26-28°C</li> <li>▪ pH 6-7</li> <li>▪ DO 5-7mg/l</li> </ul> | Should spermiate between 12-15 hrs  |
| Clarias sp. (F) | <ul style="list-style-type: none"> <li>• 1-1.5 years old</li> <li>• 1.5-2 kg</li> <li>• Healthy with swollen belly</li> <li>• Genital is pinkish in colour and serrated</li> </ul> | 1 <sup>st</sup> dose: 0.1 ml per kg<br>After 6 hrs;<br>2 <sup>nd</sup> dose: 0.2 ml per kg       | <ul style="list-style-type: none"> <li>▪ Temp. 28-30°C</li> <li>▪ pH 5-6</li> <li>▪ DO 5 mg/l</li> </ul>  | Should ovulate between 12 hrs   |
| Clarias sp. (M) | <ul style="list-style-type: none"> <li>• 1-1.5 years old</li> <li>• 1-1.5 kg</li> <li>• Healthy</li> <li>• Genital is pinkish in colour and serrated</li> </ul>                    | A single dose of 0.2ml per kg is <b>given only when the female is given 2<sup>nd</sup> dose</b>  | <ul style="list-style-type: none"> <li>▪ Temp. 28-30°C</li> <li>▪ pH 5-6</li> <li>▪ DO 5 mg/l</li> </ul>  | Should spermiate between 10hrs.<br>Have to kill the male, cut out the testis and macerate it. |

Note 1: For Notopterus notopterus, we do not have the optimum dosage as not much research has been conducted on it. Hence we simply recommended you to suggest the farmers to use a single dose of 0.5 ml/kg of Ovaprim

Note 2: Please note that after selecting the breeders, it would be better to starve the fish for about 12 hrs before injection. Also ensure good aeration in water and use an anesthetic such as TMS to ensure quick handling of fish (esp. large, difficult to handle ones like Pangasius sp.) Circular tanks are preferable for injected carps and the catfishes.

