

Carp te hi dil tui ah hian an puitling mai a,mahse an tui theilo a. Sangha khawi loh ho hi chu tui turin luiah an fuan khawm thin.Artificial breeding (a tui chawp tir)nan chuan sangha ah khan damdawi chiu luh a ngai a ni.

Indian major carp ho chi siam chhuak tur chuan a hnuai mi te hi a ngai:

- 1) Brood stock Rearing unit
- 2) Spawning/Breeding pool
- 3) Hatching/Incubation pool
- 4) Spawn collection and rearing tank
- 5) Over head tank with water supply and drainage

A.Brood stock management:

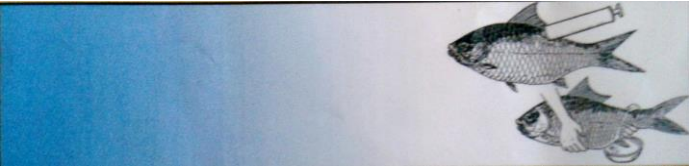
- Carp ho hi kum 2/3 ah an puitling a,fur lain june-july ah an tui bawk a
- Sangha tui pai te chu a hu ho in dil hran ah dah a,stocking density pawh 1500-2000kg/hac a ni tur ani.
- Wheat vai/ favai,Oilcake,fish meal leh vitamins and mineral chawhpawlh chu a taksa rih zawng ang a chhut a,2-3% in pek tur.
- A nu leh pa puitling tawh hriat hran dan chu :

Sl. No	A PA	A NU
1	A pangparh pawnlam a thap in a sei.	A pangparh pawn lam a mam.
2	A chi thlah na a langsar lo.	A chi thlahna a lianin a sen deuh.
3	A pum a thep.	A pum a nem in a puar.
4	A pum hmehin a pa chi a lo chhuak thei.	A pum hmehin a nu chi lo chhuak .



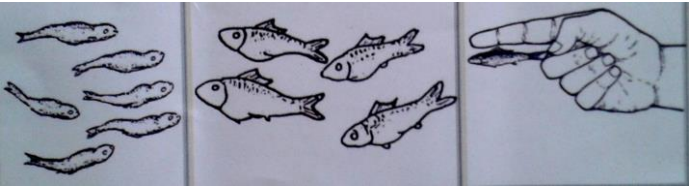
B.Tui chawp tir leh tuina hmun enkawl :-

- Eizawnnan a sangha chi hmang tur chuan damdawi hrang – Ovaprim, Ovatide, Wova FH te a awm a. Heng zinga hman lar ber chu Ovaprim a ni.
- Sangha puitling, a nu leh pa te chu thlanchhuah a, a tuina hmun hnai Hapa ah dah tur.
- A pa pahnih leh a nu pakhat, rih zawng in ang te hi chi thlah thei tura inkawp tura ngaih a ni.
- An taksa rih zawng a zirin a nu ah 0.3 – 0.5 ml/kg , leh a pa ah 0.2 – 0.3 ml/kg Ovaprim/Ovatide te hi vawikhat chauh chiu tur a ni.
- Damdawia chiu tawh te chu tanky/dil , ruahsur ang leh tui current siam chawp na hmunah a pa leh a nu ratio 2: 1 in dah tur a ni.
- Chiu atanga darkar 4 -6 ah an tui tan.
- An tui zawh vek hnuah sangha te chu lak chhuah a, a tui te chu a keu na hmun turah dah tur.
- A tui dah zat tur hi 0.7 – 0.8 million/Sq.m tui awm ang in chhut tur a ni.
- Tui temperature azirin darkar 14 – 18 ah an lo keu ang.
- A tui tuam tu rang pan te (Yolk sac) chu a ral veleh (darkar 72 vel) nursery pond ah dah luh tur a ni. A piang hlim te hian ni 4 na atangin chaw an ei tan.



Nursery siam leh enkawl dan:-

Nursery ah ni 15 – 20 an awm hnu in sangha note chu 25 – 30 mm tiat vel (fry stage) an lo ni a. Heng fry te hi kut zungtang tiat vel (100 mm) an lo nih in fingerling tih an ni. Hemi hun chhung hi thla 2 – 3 a ngai.



- Nursery atan chuan lei a siam tanky, 0.02 – 0.10 Ha, a thuk zawng 1.0 – 1.5 m siam tur.
- Cement a siam chuan 50 – 100 Sq. m , a thuk zawng 1.0 – 1.2 m hi a tam tham dah nan an hmang bawk.
- A tlem deuh dah dawn chuan thal lai a a kangchat tawh dil ah pawh a dah theih . Dil hman reng (perennial) a nih chuan a hnuaia tarlan te hi ngaihtuah a ngai.



1) Control of Aquatic vegetation :-

Tui a hnim to chi reng reng hi kut in emaw hmanrua emaw damdawi hmang tein tih fai tur a ni. Nursery / rearing pond ah chuan kuta tihfai mai a awlsam.

2) Sangha sual/weed fish tih bo :-

- Tui paih kang a, dil pho ro hi a tha ber . A nih loh chuan a hnuaia mi ang hian a tih theih bawk –
- Sangha chi dah hma thla khat ah Mahua oil cake/ tea seed cake @ 2500 kg/ha dah tur.
- Bleac hing powder (30 % chlorine) @ 350 Kg/ha – m tui ah telh tur.
- Bleaching powder @ 175 Kg/Ha – m telh hma darkar 18 – 24 ah @ 100 Kg/ha – m tuiah telh tur.
- Chemical hman tur chu sangha tan a that loh avangin hman loh tur.

3) Dil a leitha pek :-

- Soil pH a zirin chinai thi pek a, chumi hnuah leitha pek tur. Leitha a tan hian bawng ek thi, ar ek emaw inorganic fertilizer te pek theih a ni.

- Groundnut/mustard oil cake 750 kg + Bawnggek 200 Kg + SSP 50 Kg chawhpawlh te hi a chanve, hi basal dose – a hmunhma buatsaih laiin pek tur. A bak chu a wawi 2 – 3 pekah hman tur.

4) Control of Aquatic insects :-

Dil a leitha kan pek avang hian dilah hian rannung awm ngailo te an rawn pung ta a. Heng hian sangha chaw an ei puiin sangha note te pawh an ei thin. Heng ho veng tur hian Soap emulsion (Vegetable oil @ 56 Kg / Ha leh 18 Kg sahbawn man tlawm chawhpawlh) dil ah telh tur. Sahbawn dip @ 2 – 3 Kg/Ha pawh hman theih a ni.

Stocking in Nursery :-

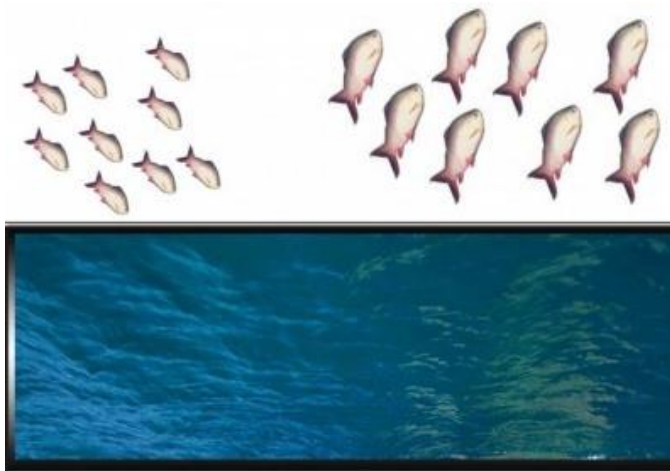
- Sangha note dah hun a tan zing lam a tha a. a tam lam chu lei a siam dil/tank ah 3 – 5 million/ha leh cement a siamah 10 -20 million/ha .
- Nursery pakhtatah sangha chi khat chauh keu tir a tha ber.
- Dil tui bal dum tam lutuk, weed tam lutuk leh sangha ei ral chi ho awm na ah sangha dah loh tur. Dah tam (overstock) loh tur.

Chaw pek belh leh dil enkawl :-

- Groundnut oil cake tih sawm sa leh rice bran te chu 1:1 ratio a pawlh in sangha note 600 gm/lakh zel a tan , a tir in ni 5 chhung pek tur. A hnu zelah chuan hetiang chaw tho 1200 gm/lakh in zing leh tlai ah inzai in pek tur.
- Ni 15 hnuah fry ho chu 25 mm an lo tling ang a, chu chu rearing point ah sawn tur.
- Sangha te an hrisel that leh that loh te, than that dan te a khat tawkin en thin tur.
- Tlai chaw pek hnuah chaw lam engmah pek tawh loh tur.

Fry atanga fingerlings enkawl dan :-

- An awmna size chu 0.05 – 0.2 ha leh 1.5 m a thuk a tha ber.
- Nursery pond tihfai dan ang bawk khan dil leh a hmunhma tihfai tur.
- Rannung te (insects)tihfai erawh a ngai lo.
- Leitha (organic leh inorganic) pek tel tur. Bawng ek leitha hi sangha dah hma kar khat ah 3 -4 tonnes/ha lo dah lawk tur.
- Sangha dah hnuah kar 2 danah bawng ek leitha 0.5 tonnes/ha ang in wawi 2 pek leh tur.



- rea @ 10 Kg/ha leh SSP @ 15 Kg/ha te hi kar 2 danah pek bawk tur.
- Dil siam lai in Mahua oil cake /tea seed cake I telh chuan dil a sangha dah hma a bawng ek leitha dah hi a ngai lo.

Stocking of fry: Dil a fry dah zat tur hi 2 – 3 lakh/ha a ni (25 mm fry size)

Chaw pek belh leh dil enkawl :-

- Stock biomass hi thla khatna ah 8 -10% pek tur, thla 2 na ah 6 -8 % , thla thum naah 4 -6 % pek tur a ni.
- Groundnut oil cake leh rice bran inzata siamah hian fish meal, soyabean flour etc te a telh belh theih a, hei pawh hi chaw a tan pek belh tur a ni.
- Grass carp kan khawi tel a nih chuan duck weeds ang chi – wolffia, Lemna leh spirodela te d ah tel tur a ni.
- Tui tam lam hi 1.5 m a dah reng tur a ni a, leitha pawh a hma sawi ang khan pek ngei tur a ni.
- Heng a chung a kan sawi ang sangha dil hi enkawl theih chuan fingerlings te hian 80 -100 mm/ 8 -10 g a rit leh lian bakah dam chhuahn a 70 -80 % an nei.

Prepared by:

Md Mintul Ali
Scientist.(Fishery)
KVK, Mamit District, Lengpui.

Designed by : C. Ramdinsanga (Computer Programmer)

FISH SEED PRODUCTION & NURSERY MANAGEMENT PRACTICES



KRISHI VIGYAN KENDRA

MAMIT DISTRICT, LENGPUI-796421

Mizoram

Leaflet No. 01/2016-KVK (LP)
Tel: 0389 2573337