বাড়ির আঙ্গিনায় হাউজে সহজ পদ্ধতিতে শিং মাছচাষ

মৎস্য অধিদপ্তর, রাজশাহী বিভাগ, রাজশাহী

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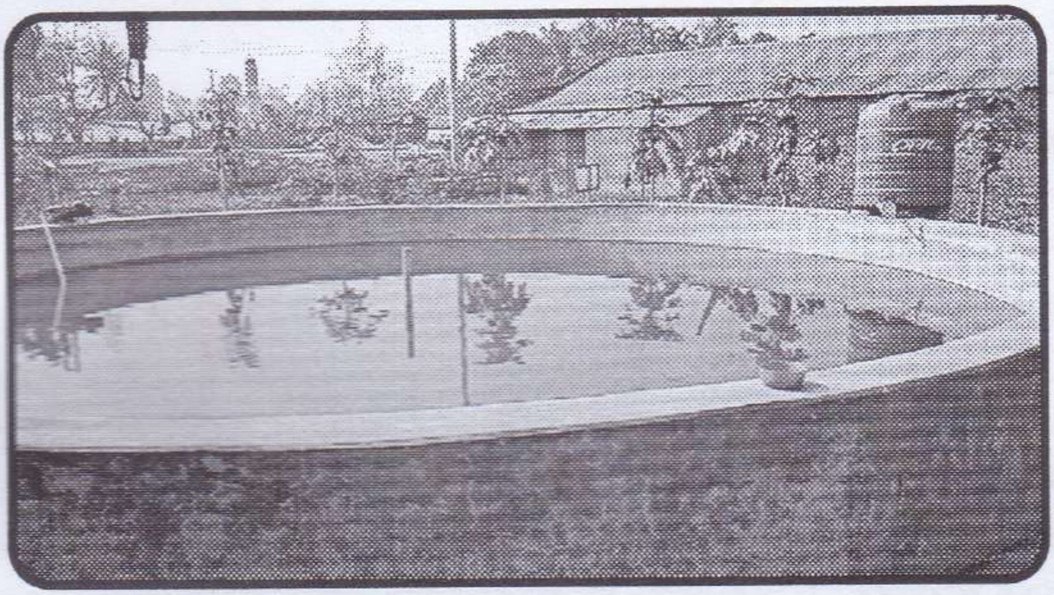
বাড়ির আঙ্গিনায় হাউজে সহজ পদ্ধতিতে শিং মাছচাষ

(মাছচাষি ও মৎস্য সম্প্রসারণ কর্মী সহায়িকা)

Shing Fish Culture in an Easy Method at Home Premises



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প্রকাশকালঃ
মে ২০২১ খ্রিঃ

সম্পাদনা
জনাব মোঃ তোফাজউদ্দীন আহমেদ
উপপরিচালক
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সম্পাদনা সহযোগীতায় ঃ
জনাব মোঃ শাহীনূর রহমান
উপ-প্রকল্প পরিচালক
ইউনিয়ন পর্যায়ে মৎস্যচাষ প্রযুক্তি সেবা সম্প্রসারণ প্রকল্প (২য় পর্যায়) (২য় সংশোধিত)
মৎস্য অধিদপ্তর, রাজশাহী বিভাগ, রাজশাহী

প্রচ্ছদ ঃ
জনাব শারমিন আক্তার
সিনিয়র উপজেলা মৎস্য অফিসার
বগুড়া সদর, বগুড়া।

মুদ্রণঃ ইউনিক অফসেট প্রিন্টিং প্রেস, বগুড়া।

দু'টি কথা'

শিং মাছের কৃত্রিম প্রজননের মাধ্যমে পোনা উৎপাদন ৯০ দশকে সফল হলেও সাম্প্রতিক সময়ে এ মাছচাষের ব্যাপক সম্পসারণ ঘটেছে। ময়মনসিংহ, বগুড়া, যশোর জেলার হ্যাচারিতে পর্যাপ্ত পোনা উৎপাদন হচ্ছে এবং অত্যন্ত লাভজনকভাবে এ মাছের চাষ হচ্ছে। এ মাছচাষ অধিক লাভজনক হওয়ায় এ মাছের চাষ দ্রুত সম্প্রসারণ হচ্ছে। কিন্তু সঠিক চাষব্যবস্থা অনুসরণ না করাই নানা প্রকার রোগ-ব্যাধি বা সমস্যার কারণে অনেক চাষি ক্ষতিগ্রস্ত হচ্ছেন। অপরদিকে বায়োফ্লক একটি মাছচাষের আধুনিক, বৈজ্ঞানিক ও প্রযুক্তি ভিত্তিক মাছচাষ। এ পদ্ধতির ব্যাপক ভিত্তিক প্রচারের কারণে যুবক শ্রেণীর অনেকে তাঁর বাড়ির পাশে এক বা একাধিক বিভিন্ন ধরনের হাউজ তৈরি করে মাছচাষে নেমেছেন। প্রযুক্তিটির বিষয়ে অতিলাভের প্রচারণার কারণে অনেকে সঠিকভাবে বুঝে না বুঝে এ পদ্ধতিতে মাছচাষের জন্য হাউজ করেছেন। কিন্তু বায়োফ্লক প্রযুক্তিতে মাছচাষ করতে গিয়ে সফলতার চেয়ে ব্যর্থতার ঘটনা বেশি ঘটেছে এবং অনেকে হতাশ হয়ে এ হাউজ গুলো নিয়ে বেশ বিপদে পড়েছেন। নির্মিত এ হাউজ গুলো কিভাবে সহজ এবং লাভজনক উপায়ে কাজে লাগাতে পারি সেজন্য আমরা "হাউজে সহজ পদ্ধতিতে (সার্বক্ষণিক বিদ্যুৎ, এ্যারেশন, মোলাসেস, প্রোবায়োটিক ও বায়োফ্লকে সংশ্লিষ্ট বিভিন্ন যন্ত্রপাতি ছাড়া) শিং মাছচাষের" বিষয়টি দেশে প্রথম পর্যবেক্ষণ করে লাভজনক ফলাফল লাভ করেছি। পদ্ধতিটি অনেকের মাঝে ব্যাপক আগ্রহ ও উৎসাহ সৃষ্টি করেছে। আমাদের ধারণা মাছচাষের এই সহজ পদ্ধতিটি অনেকের কাজে আসবে। পাশাপাশি পুকুরে শিং মাছের চাষপদ্ধতি এ বইটিতে অন্তর্ভূক্ত করা হয়েছে যা মাছচাষি এবং মাছচাষ সম্প্রসারণে নিয়োজিত কর্মীদের নিরাপদ শিং মাছচাষের সার্বিক বিষয়ে ধারণা প্রদান করবে।

মাছচাষের এ প্রযুক্তি পর্যবেক্ষণে জনাব কাজী শামস আফরোজ, সম্মানিত মহাপরিচালক, মৎস্য অধিদপ্তর, বাংলাদেশ, মৎস্য ভবন, ঢাকা এর সার্বিক পরামর্শ ও উৎসাহ প্রদান কৃতজ্ঞতার সাথে স্মরণ করছি। জনাব আব্দুল মান্নান, খামার ব্যবস্থাপক, মৎস্য বীজ উৎপাদন খামার, নাটোর সদর, নাটোর এবং শাহনেওয়াজ, বগুড়া সদর, বগুড়া হাউজে শিং মাছচাষের এ পদ্ধতি পর্যবেক্ষণ করায় সার্বিক সহোযোগিতা প্রদানের জন্য আন্তরিক ধন্যবাদ। প্রকাশনার এ কাজটিতে যারা সার্বিকভাবে সহযোগিতা করেছেন বিশেষ করে উপপরিচালকের দপ্তর, মৎস্য অধিদপ্তর, রাজশাহী বিভাগ, রাজশাহীতে কর্মরত সকল কর্মকর্তা-কর্মচারীদের প্রতি কৃতজ্ঞতা প্রকাশ করছি।

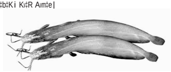
এ প্রকাশনাটি মাছচাষি এবং মৎস্য সম্প্রসারণ কর্মীদের সামান্যতম কাজে আসলে সকল পরিশ্রম সার্থক হবে। লেখনী ও তথ্য-উপাত্তের বিষয়ে সর্বাধিক মনোযোগ প্রদানের পরেও যদি ভূলক্রুটি থেকে যায় তবে ক্ষমা সুন্দর দৃষ্টিতে দেখার অনুরোধ রইল।

মোঃ তোফাজউদ্দীন আহমেদ
উপপরিচালক
মৎস্য অধিদপ্তর, রাজশাহী বিভাগ, রাজশাহী

ewoi Aw½bvq nvD‡R mnR c×wZ‡Z wks gvQPvl

Avgv‡`i †`‡k wewfbœ RvZxq gvQ I Kv‡qK `kK a‡i iæB RvZxq gvQ I Kv‡qK cRvwZi we‡`wk gv‡Qi cvwKvíZf‡e Pv‡li Av`‡Zvq Avbv m¤¢e n‡q‡Q| B‡Zvg‡a¨ gvQPvl †`‡ki A_©bxwZK Dbœq‡b, cwiYZ Awg‡li Pwn`v c~iY Ges Mªvgxb Kgms¯'vb m"wó gva¨‡g `wi`ª we‡gvP‡b ¸iæZcY Ae`vb iv‡L‡Q| G †`‡k bvbv cRvwZi †QvU-eo gv‡Qi AZ¯ŠÍ mg"× | GKmgq GLvbKvi cvKvZK Rjvk‡q mKj ai‡bi gv‡Qi e¨vcK cvPhZv wQj| †QvU cRvwZi gv‡Qi g‡a¨ ˆK, wks, gv¸i, †Usiv, ¸jkv, cve`v mK‡ji Kv‡Q AZ¯ŠÍ Rbwcq I m¯^v`y gvQ wnmv‡e mgv`"Z| wKš' cvKvZK Rjvk‡qi m¯^v` †QvU AvKv‡ii bvbv cRvwZi gvQ Avi Av‡Mi gZ cvIqv hvq bv| cvKvZK Rjvk‡q Ab¨vb¨ †QvU cRvwZi gv‡Qi b¨vq wks gv‡Qi cvPhZv µgn¨mgvb| wKš' †`‡ki cwiYR Awg‡li Z_v cvó Pwn`v c~iY Gai‡bi †QvU gv‡Qi ¸iæZ Acwimg| wks gvQ AZ¯ŠÍ cvó m¤"× gvQ| ¯^v` I cvó¸Y we‡ePbvq wks gv‡Qi MnY†hvM¨Zv Ges ¸iæZ Ab¨vb¨ gv‡Qi Zjbvq A‡bK †ekx| G gv‡Qi e¨vcK evRvi Pwn`v i‡q‡Q| G †cÖ¶v‡U wks gvQ Avgv‡`i Pvl e¨e¯'vi AšÍf©³ Kiv GKvšÍ c‡qvRb| G gv‡Qi KvÎg cRb‡bi gva¨‡g †cvbv Drcv`b 90 `k‡K mdj n‡j I mv¤úwZK mg‡q G gvQ Pv‡li e¨vcK m¤úmviY N‡U‡Q| gqgbmsn, e¸ov, h‡kvi, bimms`x †Rjvi n¨vPwi‡Z chiß †cvbv Drcv`b n‡"Q Ges AZ¯ŠÍ jvfRbKfv‡e G gv‡Qi Pvl n‡"Q| G gvQ PvI AvaK jvfRbK nIqvq G gv‡Qi PvI ¨æZ m¤úmviY n‡"Q| cK‡i G gv‡Qi Pvl mdjfv‡e GiM‡q hv‡"Q| G gvQUi Ab¨vb¨ cRwZi gv‡Qi gZ ev‡qvdK ch¨³ i mZ a‡i nvD‡R PvI n‡"Q| ev‡qvdK GKUU gvQPv‡li AvabK, ˆeÁvbK I ch¨³ wbfi gvQPvl| G c×wZi e¨vcK wfwËK cPv‡ii Kvi‡Y A‡bK Zvi ewoi cv‡k GK KwaK wefb ai‡bi nvDR ˆZwi K‡i gvQPv‡l †bt‡Qb| we‡kl K‡i he mg‡Ri g‡a¨ ev‡qvdK ch¨³ †ek AvM‡ni m"wó K‡i‡Q| hv‡`i gvQPv‡li AvMn wQj wKš' Dch³ cKi wQj bv; ev wK GKUv KwmeKv wbevn Kivi Rb¨ A‡bK G cvKvZK wf‡Z bÉ ev‡qvdK c×wZi gvQPv‡li DcKiY we‡µZv, cvkÿY c`vb K‡i Avq Kivi nvb gvbvIKZvh³ e¨³eM KZK ch¨³Ui we‡lq AvZ jv‡fi cPviYvi Kvi‡Y A‡bK mvVKfv‡e e‡S bv e‡S G c×wZ‡Z gvQPv‡li Rb¨ nvDR K‡i‡Qb| wKš' ev‡qvdK ch¨³‡Z gvQPvl Kiv‡Z wM‡q mdjZvi ‡P‡q e¨_Zvi NUbvB †ekx Avgv‡`i bR‡i G‡m‡Q|

wbivgZ G nvDR¸‡jv wKfv‡e jvfRbK Dcv‡q K‡R jvMv‡bv hvq ev Ab¨‡Kvb gvQPvl c×wZ Av‡Q wKbv hvi gva¨‡g ewoi a‡ii ¯^íAvqZ‡bi ¯'vbvU‡K Kv‡R jvMv‡q gvQPvl K‡i cwiev‡ii cwiYR cvó Pwn`v c~iY Kiv hvq ev gvQPv‡li gva¨‡g wKQUv we‡bv`b jvf Kiv hvq ev msmv‡ii wKQUv evoZ Avq Kiv hvq †m Rb¨ Avgv‡`i G c‡Póv| cv_ugKfv‡e Avgiv nvD‡R wks gvQ Pv‡li bvbv cRwZi †QvU-eo Av‡bKi gv‡S e¨vcK Drmvn m"wó K‡i‡Q| Avgv‡`i aviYv gvQPv‡li GB mnR c×wZU A‡bKi Kv‡R Avm‡e|



Qwe : wks gvQ (Heteropneustes fossilis)

Pv‡li c×wZ t

G c×wZ‡Z gvQ GKwU nvD‡R mnR mijfv‡e PvI Kiv nq th Lv‡b ev‡qvd‡Ki gvQPv‡li Abiæc mweÿYK G¨v‡ikb c‡qvRb nq bv Ges nvD‡R wbqwgZ †cvwevqwUK ev GdmmI (Fermented Organic Carbon) c‡qvMi c‡qvRb nq bv| mZivs nvD‡Ri cwbi wUWGm (Total Dissolved Solide) ev d‡Ki cwigv‡Yi cwig‡ci †Kvb c‡qvRb nq bv| d‡j ev‡qvd‡K gvQPv‡li b¨vq G c×wZ‡Z mweÿYK we¨`r mieivni c‡qvRb nq bv| nvDR c¯'Z K‡i cwb gv‡Qi †cvbv Qvo‡Z n‡e Ges wbqwgZ Lvevi w`‡Z n‡e Ges cwbi Ae¯'v e‡S gv‡S g‡a¨ Zj‡`k †_‡K wKQ cwb †ei K‡i ciY K‡i w`‡Z n‡e Ges cbiwq bZb cwb w`‡q Lwj Ask ciY K‡i w`‡Z n‡e| G c×wZ‡Z mKj cRwZi gvQPvl Kiv h‡e bv †Kej H mg¯Í cRwZi gvQPvl Kiv h‡e hv‡`i AvZ¨i³ kmb hš AvQ| G c×wZ gvQPv‡li gv‡S g‡a¨ Zj‡`‡ki AvZ¨i³ gqjvmn wKQUv cwb †ei K‡i w`‡Z nq Z‡e e‡Uvg‡Kb c×wZi b¨vq Zj‡`k m¤úYfv‡e cwi¯‹vi Kivi c‡qvRb bvB| nvD‡Ri Zjvq wKQUv gqjv _vK‡j wcv"Qj fve m"ó nq hv wks gv‡Qi Rb¨ DcKvix| Avgv‡`i †`‡k G c×wZi civÿvgjK PvI GUvB c_g| cv_ugK djvdj †_‡K ejv hvq th, G c×wZ‡Z ¯^í, ga¨g Ges e"nr cwim‡i gv‡Qi PvI Kiv m¤¢e n‡e|

G PvI c×wZi mweav t

G c×wZ‡Z ¯^í RvqMvq AvaK Nb‡Z gvQPvI Kiv hvh| ¯^í cwim‡i G c×wZ‡Z th †KD gvQPvI Ki‡Z cv‡i| kn‡ii ewoi Qv‡`I G c×wZ‡Z gvQPvI Kiv th‡Z cv‡i| hv‡`i cKi bvB wKš' gvQPvI Ki‡Z Pvb Zviv G c×wZ AbmiY Ki‡Z cv‡ib| Mv‡gi ewoi DV‡bi GK wš‡K †MvqvjNi Ges cv‡k gvMi †Lvc _v‡K, wK †Zgb Aci cv‡k GKwU gv‡Qi nvDR _vK‡Z cv‡i| ewoi th †Kvb m¯'m¨ gv‡Qi hZ wb‡Z cv‡i| nvD‡R gvQPvI Kivq gvQ aivI †ek mnR| gvQ GKmv‡_ ai‡Z n‡e Ggb bq, cwiewiK c‡qvR‡b th †Kvb mgq c‡qvRbwq msL¨K gvQ aiv hvq| a"Z gvQ RvešÍ nIqvq gvQ †L‡Z I Le m¯^v` nq Ges gv‡Qi cvó AÿZ _v‡K| nvD‡R ev‡qvdK c×wZ‡Z gvQPv‡li Abiæc GLv‡b mweÿYK we¨`r Gi c‡qvRb nq bv| evoZ †Kvb hšcwZ I wKb‡Z nq bv, wPUv¸o ev ‡cev‡qvwU · jv‡M bv|

nvD‡Ri aibt

wefb ai‡bi nvD‡R G c×wZ‡Z gvQPvI Kiv th‡Z cv‡i| mnR K_vq G c×wZ‡Z Avm‡j GKwU gvQPv‡li Avavi c‡qvRb| thgb ewoi cv‡Ki †Lvjv ¯'vb gwU MZK‡i Zvicvjb w`‡q Zj‡`k gwo‡q w`‡q 2-3 dU MfxiZvi cwb †i‡L gvQPvl Kiv th‡Z cv‡i| Avevi BU-evj wm‡gU w`‡q †MvjvKvi ev AvqZKvi nvDR ˆZwi K‡i †mLv‡b gvQPvI Kiv th‡Z cv‡i| eZgv‡b

Zvicvjb th U¨vsK cvIqv hv‡"Q Zvi g‡a¨ I G c×wZ‡Z gvQPvl Kiv th‡Z cv‡i| nvD‡Ri AvKvi 5000 wjUvi cwb aviY ÿgZv †_‡K eo th †Kvb g‡ci n‡Z cv‡i|

Qwe 2: Zvicvjb w`‡q ˆZwi cwbi Avavi

Qwe : †MvjvKvi U¨vsK

G c×wZ‡Z gvQPv‡li Rb¨ U¨vsK ev cwbi Avav‡ii G‡KwU we‡kl ˆewkó¨ nj Avav‡ii Zj‡`k †K‡›`ªi w`‡K h‡_ó Xvj iv‡L‡Z nq| th‡nZ Zj‡`k †_‡K gv‡Qi cvqLvbmn AvZ¨i³ gqjv †ei K‡i w`‡Z nq †m Rb¨ †K‡›`ªi w`‡K Xvj iv‡Lv GKvšÍ c‡qvRb| G Xvj hZ †ekx iv‡Lv h‡e ZZ gqjv cwb wb¯'vk‡b mweav n‡e|

†K›`ª eivei nvD‡Ri Zj‡`k w`‡q GKwU cwb †ei K‡i †`evi e¨e¯'v iv‡L‡Z n‡e hv GKwU ¯øBP ev Gj‡ev we‡kó cvBc Øviv wbqšY Ki‡Z n‡e A_ev nvD‡Ri Zj‡`‡ki AvZvi³ gqjv, cwbi m‡_ †ei K‡i †`evi Rb¨ MfxiZg ¯'v‡b mwegwmej cvú †gvkb ¯'vcb Ki‡Z n‡e A_ev †dv·ej †QvU-eo cvBc w`‡q mvBdwbK c×wZ‡Z I GKB Kvh Kiv th‡Z cv‡i| AvZvi³ gqjvmn cwb †ei K‡i †`qvi KvRwU c‡qvRb Abhvqx A_ev wbi`ó mgq ev w`b cici Ki‡Z n‡e| nvD‡RwU wm‡g›Ui ˆZwi n‡j U¨vsKi wfZ‡ii Ask h‡_ó gm"b Ki‡Z n‡e, LmL‡m n‡j Pv‡li gv‡Qi mgm¨v n‡Z cv‡i| U¨vsKi cv‡Ki †`qvj gm"Y Kivi Rb¨ th †Kvb fvj gv‡bi is e¨envi Kiv th‡Z cv‡i| c‡qvR‡bi mgq nvD‡R cwb mieiv‡ni Rb¨ e¨e¯'v iv‡L‡Z n‡e| G‡ÿ‡Î A‡bKi ewo‡Z Over head U¨vs‡K cwb DV‡bvi Rb¨ th †gvk‡bi e¨e¯'v _v‡K †mU Kv‡R jvMv‡bv h‡Z cv‡i A_ev wUDe-I‡q‡ji m‡_ GK Akki³ m‡ub GKwU †gvkb msh³ K‡i †bqv h‡Z cv‡i|

gvQ Qvovi Rb¨ nvDR c¯'Z t

wm‡g›U Øviv ˆZwi bZb U¨vsK Aek¨B 10-15 w`b cwb w`‡q cY K‡i iv‡L‡Z n‡e wm‡g›Ui ev is Gi ÿwZKi cfve KvU‡bvi Rb¨| AZci gvQPv‡li Rb¨ cwb c‡e‡ki Av‡M nvDRwU ev cwbi AvaviwU cUvmqvg cvi‡g½v‡bU ev wewjPs cvDWvi w`‡q fvj K‡i a‡q wb‡Z n‡e| cwi¯‹vi cwi"QbZvi c‡i nvD‡R c‡qvRbwq cwigvY (1 wgUvi MfxiZv) cwb c‡ek Ki‡Z n‡e| gvQPvl PjvKv‡j c‡qvR‡b nvD‡R cwb mieiv‡ni Rb¨ GKwU cwbi jvB‡bi e¨e¯'v iv‡L‡Z n‡e| nvD‡R cwb mieiv‡ni mgq †dvqviv AvKv‡i †`qvB fvj| wks gvQ Av‡jv cQ›` K‡i bv G Rb¨ gvQ hv‡Z jvK‡q _vK‡Z cv‡i †mRb¨ nvD‡Ri Zj‡`‡k 1 wgUvi AvKv‡ii K‡qKwU wcvfm cvBc ¯'vcb Ki‡Z n‡e| cwbi wcGBP Gi cwigvY e‡S cvZ 10,000 wjUvi U¨vs‡K 100 Mªvg Pb fvj K‡i ¸wj‡q mg¯Í nvD‡R wQUv‡q w`‡Z n‡e|

Qwe : GKwU Av`k nvDR

wewjPs cvDWvi t wks gvQPv‡I e¨vK‡Uwiqvi Dcv`¨vZ bvbv cKvi mgm¨vi m"ó K‡i, G Rb¨ cKi c¯'ÍZi mgq wewjPs cvDWvi (30% †Kvwib) cvZ kZvs‡k 200 Mªvg nv‡i c‡qvM K‡i cK‡ii Zj‡`k `IY g³ Kiv c‡qvRb| wewjPs cvDWvi c‡qvM Ki‡j cK‡i RjR cvi‡e‡ki ev cK‡ii Zj‡`‡ki gwUi mKj ÿwZKi e¨vK‡Uwiqv †K aŸsk Kiv hvq| cKi hv` ïK‡q c¯'ÍZ Kiv nq Z‡e wewjPs bv w`‡jI Pj‡e| Z‡e cKi ïK‡j Zj‡`k nvj w`‡q AvjMv K‡i w`‡Z n‡e|

we. `t wewjPs cvDWvi cwb‡Z `evfZ n‡q nvB‡cv‡K¬vivm GmW I K¬vjmvqvg †Kvivb‡WW cwiYZ nq| GB nvB‡cv‡K¬vivm GmW vd" i¨wWK¬vj Av·‡Rb wivjR K‡i hv ÿwZKviK A‡bK RxevYy I Ab¨vb¨ AMvwbRg webó K‡i|

Pb c‡qvM t gvQ Pv‡l Pb c‡qvM AZ¨vek¨K| Pb K¬vjkqvg mg"× AvRe †hŠM h GmW gva¨‡gK ÿviwq ev wbi‡cÿ K‡i gvQ Pv‡li Dch³ cwi‡ek m"ó K‡i| Pb c‡qvMi Av‡iv wKQ DcKvwiZv nj t

❖ gwU I cwbi wcGBP gvQ Pv‡li Dc‡hvMx gvÎvq iv‡L|
❖ cwb‡Z ÿvi‡Zi (Alkalinit) cwigvY 50 wgwjMÖvg/wjUvi iv‡L‡Z mnvqZv K‡i|
❖ m‡ii KvhKvwiZv e"w× K‡i|
❖ c¯'ZKvjxb Pb c‡qvMi gva¨‡g cKi ciRxex I †ivMRxevY g³ nq|
❖ P‡bi K¬vjkqvg ‡bRB GKwU ¸iæZcY cvó Dcv`vb|
❖ Kv`vq Avex dmdiv g³ K‡i cK‡ii Deiv kv³ e"w× K‡i|
❖ cwbi †Nvjv‡Z `i K‡i|

P‡bi gvÎv t cKi c¯'‡Zi mgq cK‡ii we"gvb wcGBP (PH) gvÎvi Dci ev Zj‡`‡ki Kv`vi cwigv‡Yi Dci wfwË K‡i kZvs‡k 1-2 †KvR Pb c‡qvM Ki‡Z n‡e| P‡bi KvhKvwiZv fvj †c‡Z m¨v PvKv †cvov Pb (CaO) c‡qvM Ki‡Z n‡e| cvDWvi Pb ev Kvj Pb (Ca (OH)2) Gi KvhKvwiZv Kg|

Pb c‡qvM c×wZ t ïKbv cK‡i Zjvq Ges cK‡ii Xv‡j th chšÍ cwb DV‡e †m chšÍ Ges cK‡ii Zj †`‡k cwb‡Z ¸jv‡bv Pb fvj fv‡e wQUv‡q w`‡Z n‡e| G KvRwU †ejv 11-12 Uvi mg‡q Ki‡Z n‡e| g‡b iv‡L‡Z n‡e Pb †eik mgq a‡i wfR‡q iv‡L h‡e bv| G‡Z P‡bi Kvh ÿgZv K‡g th‡Z cv‡i| cK‡ii Zj‡`k Kv`v _vK‡j gB w`‡q ev Kv‡Vi †gvUv Wvj w`‡q cK‡ii Zj‡`k jvo‡q w`‡Z n‡e hv‡Z Pb Kv`vi b‡P c‡ek Ki‡Z cv‡i|

we.`t cKi ˆZwii mgq Pb w`‡Z n‡e †ejv 11-12 Uvi mgq, G mgq cvKvZKfv‡e cwi‡e‡k wcGBP †ekx _v‡K Ges Pb c‡qvM Ki‡j `æZ wcGBR cwieZb N‡U D"P wcGBP gvÎvq †c‡ŠQ Ges ÿwZKi †ivM Rxevb gviv hv‡e| gvQPvl Pjv Kv‡j Pv‡li gvQ hv‡Z ÿwZ M¯' bv nq †mRb¨ mKv‡ji w`‡K (7-8 Uvi) cK‡i Pb c‡qvM Ki‡Z n‡e| KviY cvKvZKfv‡e G mgq cK‡ii wcGBP Kg _v‡K, d‡j Pb c‡qvM cwbi wcGBP `æZ DaMgx n‡e bv|

Pb c‡qvM mZKZv t Pb cK‡i wQU‡bvi mgq mZKZv Aej¤b Ki‡Z n‡e hv‡Z Pb c‡qvMKvix kvixiK ÿwZ bv nq, KviY Mig Pb kix‡i jvM‡j †m ¯'vb c‡o th‡Z cv‡i| Pb c‡qvMi mgq b¤ª wjLZ welq¸‡jv we‡ePbvq iv‡L‡Z n‡e|

❖ mvaviYZ Pb cwb‡Z wfR‡j Mig nq, Mi‡g cv‡Îi ÿwZ n‡e bv Ggb cv‡Î Pb wfR‡bv th‡Z cv‡i|
❖ †Kvb mgq Pb cøvó‡Ki cv‡Î wfR‡bv hv‡e bv|
❖ Pb †Mvj‡bvi mgq cvÎ †_‡K wbiv‡c` `i‡Z _vK‡Z n‡e hv‡Z †PvL P‡bi wQUv bv c‡o|
❖ Pb cwb‡Z M‡j †M‡j cv‡Î wbtq cvZjv K‡i ¸wj‡q mviv cK‡i mgvb fv‡e wQUv‡q w`‡Z n‡e|
❖ Pb wQU‡bvi mgq †PvL gL †X‡K wb‡Z n‡e|
❖ Pb evZv‡mi AbK‡j wQU‡Z n‡e|
❖ Pb cK‡i †`evi mgqB wfR‡Z n‡e AvaK mgq Av‡M wfR‡bv h‡e bv, Z‡Z P‡bi KvhKvwiZv K‡g th‡Z cv‡i|

we.`t A‡bK mgq PvI GK w`b ev 10-12 N›Uv Av‡M Pb wfwR‡q iv‡L‡Z †`Lv hvq GUv wK bq KviY Pb †eik mgq wfR‡q iv‡L‡j Zvi KvhKvi ÿgZv A‡bKvs‡k K‡g hvq|

mvi c‡qvM t wks gvQ Pv‡l mvaviYZ cK‡i mvi c‡qvM Kivi c‡qvRb nq bv| Z‡e th‡nZ wks gvQ m‡hvi Av‡jv mn¨ Ki‡Z cv‡i bv †m Rb¨ AMfxi Z_v 3-4 dU MfxiZvi cK‡ii †ÿ‡Î mvi c‡qvM K‡i cK‡i cvKvZK Lv`¨ Drcv`b K‡i wks gv‡Qi Dc‡hvMx cwi‡ek m"ó Kiv th‡Z cv‡i| mv‡ii gvÎv cKi †f‡` cvZ kZvs‡k BDwiqv 100-150 Mªvg Ges wUGmwc 100-150 Mªvg nv‡i c‡qvM Kiv th‡Z cv‡i| cK‡ii cwbi ¯^"QZv Kgv‡bvi Rb¨ ev cvKvZK Lv`¨ c¯'‡Zi Rb¨ A‡bK PvI wks gv‡Qi cvDWvi bvmvi Lvevi wKQUv †eik gvÎvq cwb‡Z ¸wj‡q cK‡i c‡qvM K‡i _v‡Kb| Avevi kZK 200-250 Mªvg nv‡i mwiliv ˆLj cwb‡Z 2-3 w`b wfwR‡q ˆRe mv‡i cwiYZ K‡i cK‡i c‡qvM Ki‡j GKB fv‡e cvKvZK Lvevi ˆZwi n‡e|

we.`t cK‡i wUGmwc mvi c‡qvMi †ÿ‡Î cwigvY gZ mvi 3-4 N›Uv Av‡M cwb‡Z wfwR‡q iv‡L‡Z n‡e Ges Pb c‡qvMi mgq c‡qvRbwq mvi wgkv‡q mg¯Í cwb‡Z wQUv‡q w`‡Z n‡e| Avg`wbK‡Z wUGmwc mvi cwb‡Z ¸jv‡Z A‡bK †eik mgq jv‡M †m Rb¨ G mvi 12-14 N›Uv Av‡M †_‡K cwb‡Z wfwR‡q iv‡L‡Z n‡e| `ubv`i Ae¯'vq cK‡i c‡qvM Ki‡j wUGmwc mv‡ii †eiki fvM Ask cK‡ii Zjvq gwU‡Z †kwlZ nq hvq hv cK‡ii Drcv`bkxjZvq Ask wb‡Z cv‡i bv|

**cK‡ii Pwiv`‡K wbivcËv †eóbx ¯'vcb t** wks gvQ Pv‡li †ÿ‡Î cKi c¯'‡Zi ¸iæZcY KvR nj cK‡ii Pwiv`‡K wbivcËv †eóbx ˆZwi ev †Ni †`Iqv| mvaviYZ Nb dvm‡i bvBjb Rvj ev e‡ki evbv w`‡q †eov ˆZwi Kiv th‡Z cv‡i| †eóbx ˆZwi Kivi cwb D‡Ïk¨ nj gvQ wKKvix ÿwZKi cvYx mvc, e¨vO, wkqvj cfwZmn Ab¨vb¨ cwYi c‡ek eÜ Ges elvi mgq cwicK gvQ cvo †et‡q †eriqv hvIqv eÜ Kiv| †e÷bx ¯'vc‡bi Rb¨ cK‡ii cv‡oi Dci PZi¯'‡K 6 BÂ Mfxi K‡i cixLv Lbb K‡i G MvZi g‡a¨ 8-10 dU ci ci ev‡Ki LvU ev Mv‡Qi Wvj k³ K‡i c‡Z w`‡Z n‡e| Gi ci bvB‡jv‡bi †bU Øviv cK‡ii cv‡oi PZi¯'‡K wN‡i †dj‡Z n‡e| cK‡ii cwb cvo D‡ÏK mvab Kiv th‡Z cv‡i| cK‡ii Pvi cv‡oi Dci PZi¯'‡K wNti †dj‡Z n‡e| cK‡ii cwb c‡e‡ki Av‡M A_ev cwb c‡e‡ki m‡_ m‡_ G †eóbx ˆZix Ki‡Z n‡e|

cK‡ii Dci eo dv‡mi Rvj ¯'vcb t wks gvQ cK‡i A‡bK Nb‡Z PvI Kiv nq Ges G‡`i mvaviY ˆewkó¨ nj cwbi Dc‡ii ¯Í‡i G‡m evZvm †_‡K Av·‡Rb MnY Kiv| A_vr G gvQUv‡K mviv‡ÿY Uvei w`‡Z †`Lv hvq| gv‡Qi G ai‡bi ˆewkó¨i Kvi‡Y mn‡R wKKvix cvLi bR‡i c‡o| gvQ wKKvix cvLi nvZ †_‡K gvQ iÿvi Rb¨ mg¯Í cK‡ii Dci eo dv‡mi Rvj ¯'vcb Ki‡Z nq| Rvj e¨ZZ j¤v mZv cK‡ii AvovAvwo mwimwi Uvbv w`‡q I G D‡Ïk¨ mvab Kiv th‡Z cv‡i| Ab¨_vq cvZv`b gvQ wKKvix cvLx cPi cwigv‡Y gvQ †L‡q †dj‡e Ges AvaK gvQ Drcv`‡b †bwZevPK (Negative) cfve †dj‡e Ges PvI AvaK jvf †_‡K eÂZ n‡e|

gR` Kvjxb e¨e¯'vcbv t

gvQ Pv‡li aviveswnK Kvh¨µ‡gi G ch©vq jvfRbK gvQ PvI wbwðZ Kivi Rb¨ we‡kl KZK¸‡jv KvR Ki‡Z nq hv wb¤œ Av‡jvPbv Kiv nj|

**1) gR` NbZ t** gvQ Pv‡li mdjZvi Ab¨Zg cavb GKwU wbqvgK n‡"Q gR` NbZ| gR` NbZ ej‡Z †Kvb GKK Rjvk‡q (kZvsk) wK cwigvY †cvbv gvQ gR` K‡i PvI Kiv n‡e Zvi gvÎv ev cwigvY †eSvq| gR` NbZ Le Kg ev †eik n‡j AvaKvsk ÿ‡Î gvQ Pv‡l jvf nq bv| gR` Nb‡Zi Dci gv‡Qi Lv`¨i c‡qvMi cwigvY mn Ab¨vb¨ LiP wbfikxj| ZvB AvaK cwigvY †cvbv gvQ cK‡i gR` Kiv n‡j Pv‡li mgvMK LiP †eto hvq|

AvaK Nb‡Z gvQ PvI Ki‡j Av‡iv mgm¨v nj c`Ë Lv‡`¨i FCR (Food Conversion Ratio) Gi gvb fvj nq bv| G Qvov Rjvk‡qi GKwU wbw`ó aviY ÿgZv (Carring Capacit) _v‡K| D`vniY ¯^iæc ejv th‡Z cv‡i 1 weNv RvgZ 40-50 †KvR a‡bi evR ecY Ki‡j thgb avb n‡e bv †Zgb 100 vj. aviY ÿgZvi cv‡Î D³ cwigv‡Yi †eik cwb †X‡j cK‡i I wbi`ó gvÎvi AvZvi³ gvQ gR` Kiv n‡j cZ¨wkZ gvÎvq Drcv`b cvIqv hv‡e bv, eûwea mgm¨v †`Lv w`‡e| gv‡Qi gR` NbZ wbfi K‡i Pv‡li D‡Ïk¨, jÿ¨, cK‡ii gwU I cwbi ¸Y,Y, †cvbvi AvKvi, PvI e¨e¯'vcbv, Lv`¨i aib I cwb e¨e¯'vcbv Ges Pwli gvQ Pv‡li AvfÁZv I Av_K mvg‡_i Dci| cwb e¨e¯'vcbv ej‡Z cK‡ii cwb cwieZb, cwbi Av·‡Rb gvÎv e"w×i Rb¨ G¨v‡iUi ¯'vcb †eSvq| cK‡ii cwbi MfxiZv Dcil †cvbv Qvovi gR` NbZ A‡bKvs‡k wbfi K‡i| cK‡ii MfxiZv 3-4 dU n‡j th cwigvY †cvbv Qvov h‡e 5-6 dU n‡j Zvi †_‡K †eik †cvbv gvQ Qvov h‡e|

2) †cvbv msMn I cwienb t wks gv‡Qi †cvbv cwienb iæB RvZxq gv‡Qi †cvbv cwien‡bi gZ n‡j I wKQUv wfbZv i‡q‡Q| Gme gvQ KvU h³ nIqvq eo AvKv‡ii †cvbv Av·‡Rb e¨vM cwien‡bi ÿ‡Î we‡kl mZKZv Aej¤b Ki‡Z nq| wks gv‡Qi †QvU †cvbv Av·‡Rb e¨vM cwienb Kiv DËg| wks gv‡Qi †cvbvi eqm 30-40 w`b n‡j Zv gR` cK‡i ¯'vbvšÍi †hvM¨ nq| †cvbv msMn‡i mgq fvj RvZ wbiðZ nevi Rb¨ †cvbvi Drmi wel‡q fvjfv‡e †LvR Lei wb‡Z n‡e Ges fvj Rv‡Zi cvó †cvbv msMn Ki‡Z n‡e| †cvbv cwien‡bi ÿ‡Î cwbZ GjvgbqvgI cwZj ev cøvó‡Ki Wvg e¨envi Kiv th‡Z cv‡i| A‡bK mgq cøvó‡Ki Wv‡g cwigvY gZ †cvbv A_vr 50 wjUvi cwb‡Z 5000 †cvbv (5-6 N›Uv cwien‡b) wbtq Wv‡gi gL eÜ K‡i †`qv nq, G‡ÿ‡Î Wv‡gi g‡Li XvKb wQ` K‡i evZvm c‡e‡ki e¨e¯'v iv‡Lv nq| †cvbv fvZ Wvg ¯'ti cwien‡bi mgq ev‡mi jv‡MR iv‡Lv ¯'v‡b †i‡L cwienb Kiv qvq| KviY wks gv‡Qi †cvbv cwien‡bi mgq evoZ Kivi c‡qvRb nq bv| †cvbvi Wv‡g wK cwigvY †cvbv cwienb Kiv h‡e †mUv wbfi K‡i †cvbvi AvKvi Ges KZ¯'‡i †cvbv cwienb Kiv n‡e Zvi Dci| †eik A‡bK mgq a‡i †cvbvi cwien‡bi ÿ‡Î cwigvY Kg‡q wb‡Z n‡e|

we.`t †cvbv msMni mgq †LvR Lei wb‡q fvj Ges we¤^¯Í bvmvi n‡Z †cvbv msMn Ki‡Z n‡e| msMn Kivi mgq †cvbvi ¯^v¯'¨ fvjfv‡e cixÿv Ki‡Z n‡e| †cvbvi Mv‡q ÿZ ev ZK bó _vK‡j ev †cvbv hv` nvcv ev wm÷vYi wfZi Dj¤ nth fv‡m Z‡e †m †cvbv Pv‡li Rb¨ †bqv h‡e bv| G ai‡bi †cvbv cK‡i gR` Ki‡j †cvbvi g"Z¨nvi †eto hvq gv‡Qi †iv‡Mi cv`fve †eik †`Lv †`q|

nvD‡R e¨eüZ cwbi ¸YvMY t

nvD‡R e¨en‡ii Rb¨ Avqib g³ cwb n‡j fvj nq| AaaK Avqib _vK‡j †m cwb‡Z Av·‡R‡bi NvUwZ n‡Z cv‡i| hw` cwb‡Z Avqib _v‡K Zvn‡j cwb Aci GKwU nvD‡R w_wZ‡q wb‡Z n‡e| G Qvov I †h †Kvb eo Rjvk‡qi ev Lv‡ji ev b`xi cvwb¯—i cwb e¨enwi Kiv †h‡Z cv‡i| cwbi wcGBP 7.50 Ges Avqi‡bi gvÎv 0.02 GgwR/wjUvi Gi wb‡P _vK‡j fvj nq|

nvD‡R wks gv‡Qi †cvbv gR` t

cv_wgK fv‡e nvD‡R Avgiv wks gvQPv‡li m¤vebv wb‡q KvR K‡iwQ, †m Rb¨ GLv‡b wks gv‡Qi gR` NbZ weI‡q Av‡jvPbv Kiv n‡e| †`‡ki wewfb ¯'v‡b wks gv‡Qi †iY Drcv`‡bi A‡bK n¨vPwi cwZwóZ n‡q‡Q| G me n¨vPwii g‡a¨ wks gv‡Qi fvj n¨vPwi †_‡K †`‡L-ï‡b †cvbv msMn Ki‡Z n‡e| fvj †cvbv n‡j DËg cwiPhvi gva¨‡g fvj Drcv`b cvIqv hv‡e| wks gv‡Qi ciæI gvQwU ¯¿x gv‡Qi †_‡K †ek †QvU nq Ges e¨eavbUv †ek †ewk| †m Rb¨ A‡bK †cvbv we‡µZv eo AvKv‡ii †cvbv Av‡M †_‡K mwi‡q wb‡q †QvU AvKv‡ii †cvbv A_vr ciæI †cvbv mieivn w`‡Z †`Lv hvq| G Rb¨ wek¯Í, cwiwPZ e¨w³i wbKU n‡Z †cvbv µq Ki‡Z n‡e| †cvbv µ‡qi mgq wb‡R Dcw¯'Z _vKvB fvj| Le fvj nq hw` †cvbv c‡qvR‡bi †_‡K †ewk µq K‡i 1 gvm jvjb Kivi c‡i evQvB K‡i eowU †i‡L †QvU¸‡jv ev` †`qv nq| †QvUwU ev` †`qvi A_ n‡"Q mg¯Í ciæI gvQ¸‡jv PvI †_‡K mwi‡q †dj v| wks gvQPv‡li mv‡_ RwoZ mK‡jB Avgvi G g‡Zi mv‡_ Aek¨B GKgZ †cvlY Ki‡eb †h, wks gvQPv‡li †k‡l AvniYKv‡j hLb gv‡Qi ea‡bi weivU cv_K¨ cwijwÿZ nq ZLb Pwli gbUv †ek Lvivc n‡q hvq| KviY GKB mg‡q gvQPv‡l hLb ¯¿x gvQ ¸‡jv 16wU‡Z †KwR nq wVK ZLb ciæI¸‡jv nq 26wU‡Z †KwR| GKB mgq PvI GKB cwigvY Lvevi †L‡q AvKv‡ii GB e¨eavb †_‡K A‡b‡KB †Póv K‡ib †Kej ¯¿x gvQPv‡li| nvD‡R †cvbv Qvovi nvi Pv‡li AvfÁZvi Dci wbfi Ki‡e| cwZ wjUvi cwb‡Z 1wU wks gv‡Qi ‡cvbv Qvov hv‡e Z‡e cv_wgK chv‡q cwZ 2 wjUvi cwb‡Z GKwU †cvbv gR` KivB †kq| mZivs GKwU 10,000 wjUvi cwb aviY ÿgZvi U¨vs‡K 5,000wU †cvbv gR` Kiv †h‡Z cv‡i| †cvbvi AvKvi eo n‡j fvj nq wKš' eo †cvbv cwien‡b mgm¨v Av‡Q| †cvbv eo n‡j Zvi KvUwU k³ n‡q hvq, †cvbv cwien‡bi mgq AvNvZ cvß n‡Z cv‡i Ges c‡i Bb‡dKkb n‡q nvD‡Ri A‡bK †cvbv gviv †h‡Z cv‡i|

†cvbv cwßi ¯'vb hw` ewoi KvQvKwQ nq ev hw` h‡_ô mveav‡b cwienb Kiv m¤e nq †m †ÿ‡Î 300 jvB‡bi †cvbv gR` Kiv †h‡Z cv‡i| Ab¨_vq 5000 jvB‡bi †cvbv gR` Kivq †kq| †cvbv nvD‡Ri Kv‡Q G‡b cwien‡b e¨eüZ cwb nvD‡R e¨eüZ cwb w`‡q µgvš‡q cwieZb K‡i †cvbv‡K bZb cwi‡e‡ki cwbi mv‡_ Lvc LvB‡q wb‡Z n‡e| AZtci nvjKv cUvk (1 wcwcGg) cwb‡Z †Mvmj Kwi‡q Pv‡li nvD‡R Qvo‡Z n‡e| †cvbv mwVKfv‡e cwiPhv bv Kivi Kvi‡Y gR‡`i ciciB A‡b‡Ki †cvbv gvQ gviv †h‡Z †`Lv hvq| G Rb¨ †cvbv cwienb Ges Qvovi mgq Aek¨B evowZ mZKZv Aej¤b Ki‡Z n‡e| G mgq nvD‡Ri cwb‡Z c¨vbwfU GKqv e¨enwi (cwZ 1000 wjUvi cwb‡Z 0.5-1.0 GgGj) Kiv †h‡Z cv‡i hv‡Z gv‡Qi aKj (Stress) mn‡R `i nq|

Qwe : wks gv‡Qi †QvU †cvbv

Qwe : wks gv‡Qi eo AvKv‡ii †cvbv

Lv`¨ e¨e¯'vcbv t

eZgvb mg‡q wks gv‡Qi Rb¨ evRv‡i †ek fvj gv‡bi Lvevi cvIqv hvq| †QvU AvKv‡ii †cvbvi Rb¨ c_g GKgvm 35-40% Awgl mg"× cvDWvi Lvevi e¨envi Kiv †h‡Z cv‡i| †QvU †cvbvi †ÿ‡Î Lvevi 3-4 evi (†fv‡i, mÜ¨vq Ges Mfxi iv‡Î) w`‡Z n‡e Ges †cvbv eo n‡j (500 jvBb) `-evi (mÜ¨vq I †fv‡i) w`‡Z n‡e| Lvevi GK ev‡i †`evi †_‡K K‡qKev‡i fvM K‡i †`qvB fvj| Lvevi †Kvb fv‡eB c‡qvR‡bi Zjbvq †ewk †`qv hv‡e bv| we‡kl K‡i wks gvQ‡K c‡qvR‡bi Zjbvq GKU Kg †`qvB fvj| mvaviYZ gvQ 15-20 wgwb‡U †h cwigvY Lvevi Lvq ZZUK †`qv wbivc`| Lve‡ii `vbvi AvKvi ev evÛ cwieZ‡bi †ÿ‡Î 3-4 w`b wgk cš'v (Overlap) Aej¤b Kiv fvj| G‡Z Lve‡ii AcPq †iva Kiv hvq Ges gvQI Af¨¯Í n‡Z mgq cv‡e|

gvQ a‡i bgbvqb Kiv t

gvQPvI PjvKv‡j A‡b‡K gv‡Qi eab ev ¯v¯'¨ cixÿv Kivi Rb¨ gvQ a‡i †`‡Lb| nvD‡R wks gvQPv‡li †ÿ‡Î G KvRwU Kiv hv‡e bv| cKZ c‡ÿ wks gv‡Qi †ÿ‡Î G KvRwU †Kvb mgqB Kiv wVK bq| wks gv‡Qi kix‡ii ZK †ek cvZjv Ges G gv‡Q Le avivi‡jv KvUv _v‡K| gvQ ai‡j G KvUvq gv‡Qi kix‡i ÿZ m"wó n‡Z cv‡i| wks gv‡Qi †ÿ‡Î GB ÿZ †_‡K msµwgZ n‡q `æZ A‡bK gv‡Q †iv‡Mi we¯Ívi N‡U| G Rb¨ wks gvQPv‡l mvaviYZ †Póv Ki‡Z n‡e gvQ bv aivi Rb¨| gvQ ai‡j †m¸‡jv Avi nvD‡R bv QvovB wbivc`| wks gvQ‡K Lvevi w`‡j mKj gvQ cwbi Ic‡ii ¯Í‡i P‡j Av‡m Ges Le mn‡RB gv‡Qi AvKvi ev eab ch‡eÿY Kiv hvq|

gvQPvl wbivc` ivLvi Rb¨ Ab¨vb¨ Kvhµg t

nvD‡R gvQPvl wbivc` ivLvi Rb¨ gvQPvl PjvKv‡j wbqwgZ wKQ Kvhµg cwiPvjbv Ki‡Z n‡e|

1) Pb c‡qvM

gvQPvl Pjv Kv‡j cwZ gv‡m GKevi A_ev cwbi wc GBP Gi gvÎv cixÿv K‡i gv‡S g‡a¨ Pb w`‡Z n‡e 100 Mvg/10,000 wjUvi cwb‡Z| Pb c‡qv‡Mi Av‡M fvj fv‡e ¸wj‡q wb‡Z n‡e Ges †b‡Ui wfZi †Q‡K Zvic‡i mg¯Í cwb‡Z wQwU‡q w`‡Z n‡e| Pb cwbi gqjv w_wZ‡q Ges nvD‡Ri cwbi cwi‡ek fvj ivL‡Z mnvqZv K‡i|

2) nvD‡Ri Ic‡i †bU †`qv

wks gvQ mvaviibZ cwbi Dc‡i G‡m Uvei w`‡q _v‡K, we‡kl K‡i gv‡Qi Lvevi w`‡j mKj gvQ cwbi Dc‡ii ¯Í‡i P‡j Av‡m| Gi d‡j gvQ wkKvix cvwL AvKó nq Ges cvwL G‡m gvQ †L‡q †dj‡Z cv‡i| cvwL G †ÿ‡Î †Kej gvQ †L‡q ÿvZ K‡i bv ms‡M we‡fb †bivM msµwgZ K‡i Pv‡li gv‡Qi ÿwZ mvab K‡i| nvD‡Ri Ici †bU w`‡j Av‡iv GKwU DcKvi nq, ewni †_‡K Mv‡Qi cvZv ev Ab¨vb¨ gqjv nvD‡Ri wfZi co‡Z cv‡i bv| G Qvov I †bU †`qv _vK‡j ˆRe wbivcËv (Bio-secrit) wbwðZ Kiv hvq Ges nvD‡Ri gv‡Qi wbivcËv wbwðZ KvR K‡i|

Qwe : nvD‡Ri Ici ‡bU ¯'vcb

3) Avkq ¯'j ¯'vcb t

wks gvQ mvaviYZ Av‡jv cQ›` K‡i bv wKQUv AÜKvi ¯'v‡b Zviv ¯v"Q›`¨ †eva K‡i| GRb¨ K‡qKfv‡e gv‡Qi Avkq ev jK‡bvi e¨e¯'v Kiv †h‡Z cv‡i| nvD‡Ri Zj†`‡k 2-3 BwÂ e¨v‡mi wcwfwm cvB‡ci 1 wgUvi AvKv‡ii K‡qKwU UKiv ¯'vcb Kiv †h‡Z cv‡i A_ev †Uvcv cvbv ev KPix cvbv nvD‡Ri wbw`ó ¯'v‡b †Mvj K‡i iwk w`‡q †e‡a ivLv †h‡Z cv‡i| wks gvQ Gi Z‡j Avkq wb‡e| †Uvcv cvbv ev KPix cvbv GLv‡b Av‡iv GKwU DcKvix KvR K‡i| KPix cvbv wb‡R‡`i cwó wnmv‡e nvD‡Ri cwb †_‡K G‡gwbqv †kvlY K‡i cwi‡ek fvj iv‡L| Z‡e KPix cvbv w`‡j †Lqvj ivL‡Z n‡e †h wkKo¸‡jv eo n‡q wQ‡o nvD‡Ri Zj‡`‡k Rgv n‡q c‡P cwi‡ek bó K‡i wKbv| gvQPvI Pjv Kv‡j KPix cvbv eaaZ n‡q nvD‡Ri mg¯Í Dc‡ii ¯Íi `Lj bv K‡i †bq †m Rb¨ †ewk n‡j gv‡S g‡a¨ Z‡j †dj‡Z n‡e|

Qwe : nvD‡R KPix cvbv ¯'vcb

Qwe : nvD‡R †Uvcv cvbv ¯'vcb

4) nvD‡Ri cwb‡Z jeY c‡qvM

gvQPvI Pjv Kv‡j gvQ hv‡Z †ivM e¨wa‡Z Avµvš Í bv nq †m Rb¨ cwZ gv‡m GKevi Miæi LvIqv‡bv jeY 50-100 Mvg cwZ 10,000 wjUvi cwbi Rb¨ c‡qvM Ki‡Z n‡e| jeY G‡ÿ‡Î †ivMRxevY bvkK wnmv‡e KvR K‡i|

5) vfUwgb/wgbv‡ijm wcwg· LvIqv‡bv

nvD‡R gvQPvI †h‡nZ m¤úY Avex× cwi‡e‡k Kiv nq Ges Aci w`‡K m¤úY m¤úiK Lv`¨ wbfi gvQPvI Kiv nq †m Rb¨ gv‡Qi cwói fvimvg¨Zv iÿvi Rb¨ mieivnKZ Lvev‡ii mv‡_ 15-20 w`b cici ¯í cwigv‡Y (1 Mvg/†KwR Lvevi) wfUwgb Ges wgbv‡ijm wgkY wgwk‡q LvIqv‡Z n‡e| Gi d‡j gv‡Qi eab I †ivM cwZ‡iva ÿgZv e"w× cv‡e Ges gv‡Qi is ¯'vfwweK n‡e| cK‡ii gvQPv‡l nqZ PwI fvB‡qiv G KvRwU A‡bK mgq K‡ib bv wKš' nvD‡R gvQPv‡l Aek¨B Ki‡Z n‡e| gv‡Qi †ivM n‡j wPwKrmv Kiv LeB KwVb GRb¨ gv‡Q hv‡Z †ivM bv nq †m we‡q †ewk hZœevb n‡Z n‡e|

3) wks gv‡Qi †cvbv cwien‡b mZKZv t

K) cKi †_‡K †cvbv cwien‡bi Av‡Mi w`b cK‡i †Kvb cK‡i Lvevi †`Iqv hv‡e bv| †cvbv cwien‡bi c‡e Aek¨B †cvbv †UKkB K‡i wb‡Z n‡e| G Rb¨ †cvbv cwien‡bi K‡qK N›Uv Av‡M cwbi †dvqvix h³ nvD‡R ivL‡Z n‡e| G fv‡e †cvbvi †cU m¤úY Lwj Kiv hv‡e| G KvRwU cK‡i nvcvq †i‡LI Kiv †h‡Z cv‡i| †cvbvi †cU Lwj bv Ki‡j cwienb cv‡Î gj Z¨vM K‡i cv‡Îi cwb `wIZ K‡i †d‡j Ges †cvbvi cwienb RwbZ aKj †e‡o †h‡Z cv‡i Ges †cvbvi g"Z¨ nvil †e‡o †h‡Z cv‡i| †cvbv cwien‡bi mgq GKB AvKv‡ii †cvbv cwienb Kiv DËg|

L) wks gv‡Qi †cvbv bwmwi cKi †_‡K aiv ev KwÛkbs nvDR (Cistern) †_‡K aivi mgq we‡kl mZKZv Aej¤b Ki‡Z n‡e KviY G‡`i kix‡ii ZK LeB cvZjv| GRb¨ G †cvbv bvov Pvov (Handling) Kivi mgq †Kvb chv‡q cøwó‡Ki wQ` h³ SvKv e¨envi Kiv hv‡e bv| G ai‡bi SvKv †ek Lm L‡m G‡Z †cvbv bvov Pvov (Handling) K‡i‡j †cvbvi kix‡i ÿZ m"wó n‡Z cv‡i| †mLv‡b cieZx‡Z e¨v‡±wiqv msµwgZ (Infection) n‡q †cvbvi g"Z¨nvi †e‡o †h‡Z cv‡i| wks gv‡Qi †ÿ‡Î e¨v‡±wiqv msµgY `æZ Ab¨vb¨ gv‡Q Qwo‡q c‡o| G ÿ‡Î gm"b bvBj‡bi nvcv ev wó‡ji gm"b Mvgjv e¨envi me †P‡q DËg|

M) †cvbv cwien‡bi mgq AwaK NbZ Aek¨B cwinvi Ki‡Z n‡e| cv‡Îi cwb cwieZ‡bi mgq µgvš‡q bZb cwb h³ K‡i civZb cwb †d‡j w`‡Z n‡e|

4) †cvbv gR` t

gvV chv‡q wks gvQ GKK Pv‡li cvkvcwk AZ¨šÍ mdjfv‡e Ab¨vb¨ cRwZi gv‡Qi mv‡_ wewfb Nb‡Z PvI Kiv n‡"Q| GLv‡b wks gvQ ewYwR¨Kfv‡e Pv‡l AwaK cPwjZ K‡qKwU jvfRbK g‡Wj D‡jøL Kiv nj| wks gv‡Qi †cvbvi AvKvi †KwR‡Z 1500-2500 wU n‡j Pv‡li cK‡i Qvov †h‡Z cv‡i|

(cwZ kZvs‡k †cvbv Qvovi msL¨v)

cRwZi bvg	g‡Wj 1	g‡Wj 2	g‡Wj 3	g‡Wj 4	g‡Wj 5	g‡Wj 6
wks	1000-1200	800-1000	500-800	500-700	700-900	600-800
Kvc RvZxq	5-8		5-8	5-8		20-40
gv¸i		50-100				
†Zjvcqv		10-50				
cve`v			400-600			
¸jmv				500-600		
ˆK					500-800	

g‡Wj 1 t mvaviYZ gvV chv‡q G c×wZ Aej¤‡b AwaK PvI cPwjZ Av‡Q| GLv‡b wks gv‡Qi †cvbv †KwR‡Z 1500-2500 wU AvKv‡ii †cvbv cK‡i Av‡M Qvo‡Z n‡e| wKQ w`b ciZcvj‡bi ci Kvc RvZxq gv‡Qi †cvbv (15-25 †m.wg) we‡kl K‡i wmjfvi ev weM‡nW, iæB Ges g"‡Mj gR` Ki‡Z n‡e| wks gv‡Qi mv‡_ Kvc RvZxq gv‡Qi †cvbv ‡`Iqvi mweav nj c`Ë AwZwi³ Lvevi Giv †L‡q †dj‡e, R‡g _vKv ˆRe `e¨ Ges cK‡ii AwZwi³ cøvsKUb Kgv‡Z mvnvh¨ Ki‡e|

g‡Wj 2 t G c×wZ‡Z wks Ges gv¸i GK mv‡_B PvI Kiv hv‡e| †cvbvi AvKvi Dfq cRwZi †ÿ‡Î GKB AvKv‡ii n‡Z n‡e| cK‡i wks I gv¸i Qvovi 20-25 w`b ci †Zjvcqv (Mono-sex) gv‡Qi †cvbv Qvo‡Z n‡e| G †ÿ‡Î †Zjvcqv gv‡Qi †ewk eo AvKv‡ii †cvbv †`qv hv‡e bv| †Zjvcqv gvQ wks gv‡Qi mv‡_ `Z eo nq| Giv cK‡ii Dw"Qó Lvevi I cK‡ii Zj‡`‡ki ˆRe c`v_ †L‡q cK‡ii cwi‡ek fvj ivL‡Z mnvqZv K‡i| G c×wZ‡Z †Zjvcqvi GKwU evowZ dmj cvIqv hvq| †Zjvcqv †ewk w`‡j wks gv‡Qi msL¨v Kwg‡q w`‡Z n‡e Ges G‡ÿ‡Î wks gv‡Qi Lv`¨ Mn‡Y †Zjvcqv mgm¨v m"wó K‡i| G mgm¨v Gov‡bvi Rb¨ †Zjvcqv‡K weKv‡j chvß Lvevi w`‡Z n‡e| Zvi c‡iI wks gv‡Qi Lvevi †`evi mgq wKQ WešÍ Lvevi wgwk‡q w`‡j †Zjvcqvi wks gv‡Qi Lvevi Mn‡Y weiZ ivLv †h‡Z cv‡i|

g‡Wj 3 t wks Ges cve`v gvQ GKmv‡_ PvI gvV chv‡q cPwjZ Av‡Q| GLv‡b wks gv‡Qi †cvbv gR‡`i wKQ w`b c‡i wks gv‡Qi †cvbvi AvKv‡ii †P‡q †QvU AvKv‡ii cve`v gv‡Qi †cvbv Qvo‡Z n‡e| KviY cve`v ivÿ‡m ¯'fv‡ei gvQ| Dfq cRwZi gv‡Qi Lvevi GKB cwó mg"× n‡Z cv‡i Ges G‡`i I mÜ¨vq Ges †fvi‡ejv Lvevi w`‡Z nq| cve`v gvQ Av·‡R‡bi cwZ LeB `ej| G c×wZ‡Z gvQ Pv‡li †ÿ‡Î cK‡ii cwbi is †Kvb fv‡eB meR bv nq †m w`‡K †Lqvj ivL‡Z n‡e| G †ÿ‡Î cK‡ii MfxiZv Kg n‡j mgm¨v n‡Z cv‡i| cKi 5-6 dU Mfxi nIqv DËg| G g‡W‡j gvQPvI Ki‡j PvI PjvKv‡j †Kvb Kvi‡Y cwb‡Z `eYxq Av·‡R‡bi (DO-Dissolve Oxgen) mgm¨v n‡j Ab¨ Dr‡mi cwb mieivn Ki‡Z n‡e A_ev †mwWqvg cvi Kve‡bU cwb‡Z c‡qvM (5 Mvg/kZvs‡k) Ki‡Z n‡e|

we`t †mwWqvg cvi Kve‡bU cwb‡Z c`v‡bi ci Dnv †f‡½ †mwWqvg Kve‡bU I nvB‡Wv‡Rb cviA·vBW iæcvšÍwiZ nq| c‡i nvB‡Wv‡Rb cvi A·vBW †_‡K Av·‡Rb Drcv`b n‡q cwb‡Z evowZ Av·‡Rb mieivn K‡i|

2 Na2C03.3H202   2Na2C03+3H2024H2024H20 + 202

g‡Wj 4 t wks gv‡Qi mv‡_ cve`vi gZ ¸jmv gvQI PvI Kiv †h‡Z cv‡i| GLv‡b wks gv‡Qi †cvbv gR‡`i wKQ w`b c‡i ¸jmv gv‡Qi †cvbv Qvo‡Z n‡e| Dfq cRwZi gv‡Qi Lvevi GKB cwó mg"× Ges G‡`i I mÜvq Ges †fvi‡ejv Lvevi w`‡Z nq| G gvQ Av·‡R‡b cwZ Le `ej| G c×wZ‡Z gvQ Pv‡li †ÿ‡Î cK‡ii cwbi is †Kvb fv‡eB meR bv nq †m w`‡K †Lqvj ivL‡Z n‡e| G †ÿ‡Î cK‡ii MfxiZv Kg n‡j mgm¨v n‡Z cv‡i| cKi 5-6 dU Mfxi nIqv DËg|

g‡Wj 5 t wks gv‡Qi mv‡_ wf‡qZbvgx ˆK gv‡Qi PvI AZ¨šÍ jvf RbK| G c×wZ Rbwcq nevi cavb KviY G †ÿ‡Î Dfq gv‡Qi †iv‡Mi cv`fe Kg cwijwÿZ nq| ˆK gv‡Q Drcv`‡b †Kvb cfve c‡o bv| wks iv‡Î Lvevi MnY K‡i Avi ˆK gvQ w`‡b Lvevi MnY K‡i| Dfq cRwZi gvQ Av·‡R‡bi ¯í gvÎv mn¨ Ki‡Z cv‡i| cwb wKQUv meR Mvo n‡j I †Zgb †Kvb mgm¨v nq bv| wks gvQ‡K c"_Kfv‡e (mÜ¨vq I †fv‡i) Lvevi w`‡Z n‡e|

g‡Wj 6 t wks gvQ KvcRvZxq gv‡Qi mv‡_I PvI Kiv hvq| G †ÿ‡Î wks gv‡Qi †cvbv Av‡M Qvo‡Z n‡e| Z‡e KvcRvZxq gvQ Qvovi c‡iI Qvov †h‡Z cv‡i †m †ÿ‡Î wks gv‡Qi †cvbvi AvKvi eo (cwZ †KwR‡Z 400-500wU) Qvo‡Z n‡e| GLv‡b wks gvQ‡K mÜ¨vq I †fv‡i Lvevi w`‡Z n‡e| w`‡b KvcRvZxq gvQ‡K c"_Kfv‡e ¯'vfvweK WešÍ Lvevi c`vb Ki‡Z n‡e| Kvc RvZxq gvQ mvaviYZ iv‡Î Lvevi MnY K‡i bv d‡j wks gv‡Qi Lv`¨ Mn‡Y †Zgb mgm¨v m"wó K‡i bv|

we.`t wks gv‡Qi †QvU †cvbv (†KwR‡Z 5000-6000) cwienb wbivc`| G Rb¨ Gai‡bi †QvU †cvbv msMn K‡i wb‡Ri cK‡i wKQUv eo K‡i gR` cK‡i QvovUvB wbivc`| eo †cvbv `i †_‡K cwienb K‡i cK‡i gR` Ki‡j A‡bK mgq †cvbvi bvbwea mgm¨v nq Ges g"Z¨ nvi †e‡o hvq|

5) †cvbv Af¨¯'KiY t

cwienb cv‡Îi cwbi ZvcgvÎv I ivmvqwbK ¸Yv¸Y cK‡ii cwbi ZvcgvÎv I ivmvqwbK ¸Yv¸‡Yi cv_K¨ _v‡K| GRb¨ †cvbv cwienb cvÎ †_‡K cK‡i Qvovi Av‡M cK‡ii cwbi mv‡_ Af¨¯' K‡i wb‡Z n‡e| G D‡Ï‡k¨ cwienb cvÎ n‡Z †cvbv cK‡i Qvovi Av‡M cKi n‡Z cwienb cv‡Î Aci GKwU cvÎ w`‡q cwb wgkv‡Z n‡e| Av·‡Rb e¨v‡Mi †ÿ‡Î e¨vM cK‡ii cwb‡Z fwm‡q ivL‡Z n‡e Ges ax‡i ax‡i evab L‡j c‡ei b¨vq cwi‡e‡k Lvc LvIqv‡Z n‡e|

6) †cvbv Aeg³KiY t

†cvbv Qvovi Av‡M cK‡ii cwb‡Z ZvrÿwbK Av·‡Rb mieiv‡ni Rb¨ †mwWqvg cviKve‡bU 30 kZ‡K 0.50 †KwR nv‡i cwb‡Z wQwU‡h w`‡Z n‡e|

Gi cvkvcwk RxevYbvkK cwigvYgZ cwb‡Z fvjfv‡e ¸wj‡q cK‡i wQwU‡q w`‡j †cvbvi evPvi nvi fvj n‡e| G KvRwU †cvbv Qvovi cil Kiv †h‡Z cv‡i| †cvbv Af¨¯' Kivi ci cv‡Îi gL KvZ K‡i a‡i ewni †_‡K wfZ‡ii w`‡K ‡¯'v‡Zi e¨e¯'v Ki‡j †cvbv †¯'v‡Zi wecwi‡Z ax‡i ax‡i cK‡i P‡j hv‡e| †cvbv mvaviYZ mKv‡j A_ev weKv‡j Qvo‡Z n‡e| †cvbv cK‡i Qvovi 12 N›Uv c‡iI Avi GKevi †mwWqvg cviKve‡bUi †WvR †`qv †h‡Z cv‡i| Gi d‡j †cvbv bZb cwi‡e‡k mn‡R ¯v"Q›`¨ †eva Ki‡e Ges †cvbv evPvi nvi †ewk n‡e|

gR` cieZx e¨e¯'vcbvt

1) Lv`¨ e¨e¯'vcbv t

wks gvQ ev gvQ Pv‡l AwaK djb wbwðZ Kivi Rb¨ cK‡i mIg fvj gv‡bi m¤úiK Lvevi c‡qvM Ki‡Z n‡e| wks gvQ mvaviYZ wKUcZ½ RvZxq Lvevi †L‡q eo nq| m¤úiK Lvevi w`‡q Pv‡li Rb¨ AwaK Awgl mg"× (30% Gi AwaK) Lvevi mieivn Ki‡Z nq| wks gv‡Qi wewfb eq‡m wewfb gvÎvi Awgl mg"× Lvevi c‡qvRb nq|

K) Lv`¨ ˆZix t wks gv‡Qi Lvevi `B fv‡e ˆZwi Kiv †h‡Z cv‡i|

i) wbR¯ Lvgv‡i ˆZwi (Spplementar) t wks gvQ Pv‡li Rb¨ wbR¯ Lvgv‡i ev ewo‡Z m¤úiK Lv`¨ c¯'Z Kiv hvq| wb‡¤ D‡jøwLZ DcKiY e¨envi K‡i Lvgv‡i wks gv‡Qi Lvevi ˆZwi Kiv †h‡Z cv‡i| wbR¯ Lvgv‡i Lvevi ˆZwi K‡i wks gvQ Pv‡li †ÿ‡Î cK‡i gR` NbZ wKQUv Kg w`‡Z n‡e|

µ.bs	DcKi‡Yi bvg	cwigvY (%)	†cwUb Gi cwigvY
1.	wdmwgj ev wgU GÛ †evbwgj	40	22
2.	mwilvi ˆLj	18	5
3.	mqweb ˆLj	5	2
4.	A‡UvKov	20	2.5
5.	fU¨v	10	1,5
6.	AvUv	3	
7.	wPUv¸o	3	
8.	wfUwgb wcwg·	1	33%

6) mvD‡Ri cwb cvieZb t

gvQPvl Pjv Kv‡j cwbi is I MÜ wbqgZ ch©‡eÿY Ki‡Z n‡e| cwbi is wKQzUv meRvf _vKv fv‡jv| cwbi is wKš' MÜ m"wó n‡j mvD‡Ri Zjv †_‡K 0.5 n‡Z 1.0 dzU chšÍ cwb †ei K‡i w`‡Z n‡e| G KvRwU mvavibYZ 15-20 w`b cici Ki‡jB gvQ fvj _vK‡e e‡j AwfÁ Kiv hvq| Zj‡`‡ki GB cwb †ei K‡i w`‡Z n‡e Ggb bq, Z‡e cwbi m‡_ †hb AvZvi³ gqjv †ei nq †m w`‡K ‡Lqvj ivL‡Z n‡e| wks gvQ Zj‡`‡k _v‡K †m Rb¨ mvD‡Ri Zj‡`k GKU gm"Y ev mdU nIqv `iKvi G Rb¨ Zj‡`‡k wKQz gqjv _vK‡j mweav nq| mvD‡Ri Zj †`‡k wKQz Kv`v †`evi c‡qvRb wKbv †mUv Avgv‡`i civÿv K‡i †L‡Z n‡e| gvQPvl Pjv Kv‡j †Kej cwb †ei K‡i w`‡q cwbi AvsikK cwieZ‡bi gva¨‡g cKZcÿ cwbi ¸Y¸Y iÿv Kiv nq|

7) kv‡Zi mgq KiYxq t

kxZ Kv‡jK gvm wks gv‡Qi Rb¨ GKwU Lvivc mgq KviY G mgq cwbi ZvcgvÎv †ek K‡g hvq| wks gv‡Qi Pv‡li mgqKvjU Ggbf‡e wbavi‡Y Ki‡Z n‡e †hb kxZ mvD‡R gvQ bv _v‡K| wks gvQmn Ab¨vb¨ A‡bK gvQ kxZ cwbi ZvcgvÎv K‡g †M‡j LvIqv Kg‡q †`q| kxZ gvQ †Kej Kg Lvq bv wks gv‡Qi bvbv ai‡bi †ivMI msµigZ n‡Z †`Lv hvq| G mgq e‡S bv e‡S A‡bK mgq AvaK Lvevi w`‡j Lvevi Dr"Qó †_‡K †h‡Z cv‡i Ges D³ Dr"Qó Lvevi c‡P mvD‡Ri mweK cvi‡ek bó n‡q gvQ bvbv cKvi mgm"v †`Lv w`‡q _v‡K| G Rb¨ c_gZ Lv`¨ c`‡b mZK n‡Z n‡e Ges mvD‡Ri DòZv evov‡bvi Rb¨ mvD‡Ri Ici w`‡q ¯^"Q cvjv_b w`‡q gvo‡q w`‡Z n‡e| ¯^"Q cvjv_b w`‡q †X‡K w`‡j mvD‡RvU‡Z wMbmvDR m"wó nq Ges wfZ‡ii ZvcgvÎv 5-60†m. †e‡o hvq| G Qvovl h‡`i m‡hvM Av‡Q Zviv mvD‡Ri cwbi ZvcgvÎv e"w×i Rb¨ gvS gva¨ Mfxi bjK‚ci cwb †`qv †h‡Z cv‡i| mvD‡Ri wnUvi e¨envi K‡i cwbi ZvcgvÎv e"w× Kiv †h‡Z cv‡i| ZvcgvÎv Kg _vK‡j wks gvQ Kg Lv‡e †mRb¨ AvaKZi cvóKi Lvevi w`‡Z n‡e, h‡Z Kg Lvev‡i cvó Pvn`v mvKf‡e ciY nq| G mgq gv‡S gva¨ wW‡gi m‡_ wfUvwgb wgk‡q LvIqv‡Z cv‡i‡j fvj nq|

Qwe : ¯^"Q cvjv_‡b gvov‡bv mvDR

wks gv‡Qi †ivM I Zvi cwZKvi t

wks gv‡Qi GKwU cavb †ivM Mv‡q jvj ¯úU ev ÿZ nIqv| G †ivM‡K w`‡bi g‡a¨ A‡bK gvQ gviv hvq| GiU e¨vK‡Uwiqvi msµgbRwbZ †ivM| `-GKwU gv‡Q `vM †`Lv †`evi m‡_ m‡_ e¨e¯'v MnY Ki‡Z n‡e| c_gZ mvD‡Ri A‡aK cwb †ei K‡i w`‡q cwieZb K‡i w`‡Z n‡e Ges cici 2 w`b mvD‡R †ebRvBj †KvivBW (gvB‡µvbj ev mvbvmDi) 10 GgGj cwZ 10,000 wjUvi cwbi Rb¨ c‡qvM Ki‡Z n‡e| GKB m‡_ gvQ‡K Lvevi‡ii m‡_ wfUvwgb ÒmÓ mn Ab¨vb¨ wfUvwgb‡bi wcig· LvIqv‡Z n‡e| KviY wks gvQ‡K GbUevqwUK wPiKrmv w`‡j A‡bK mgq A‡bK gvQ weKjv½Zv †`Lv †`‡Z cv‡i|

Av‡jvP¨ c×wZ‡Z gvQPv‡li K‡qKwU `"óvšÍ t

ewoi m‡_ mvDR ˆZvi K‡i G c×wZ‡Z wks gvQPv‡li †ek K‡qKwU ch©‡eÿY Avgiv K‡iwQ Zvi K‡qKwU‡Z gvQ AvniY m¤úb Kiv n‡q‡Q Avi‡iv K‡qKwU‡Z GLbI AvniY Kiv nqwb, gvQPvl Pjgvb Av‡Q| wb‡¤œ mvD‡R wks gvQPv‡li K‡qKwUi djvdj D‡jøL Kiv nj|

NUbv 1 t

Rbve kvn‡bIqvR, ewo e¸ov m`i, wZwb 10dU x 8dU x 3.5 dU mvD‡R (8700 wjUvi) wks gvQ †Qvo‡jb 5000wU, †cvbvi AvKvi wQj 280 wU ‡Z †KwR, †cvbv gR‡`i ZwiL 17/07/2020 wL.| Lvevi w`‡qwQb c_g 20 w`b cvDWvi, w`‡b wZb evi Ges c‡i `vbv`vi fvmgvb Lvevi e¨envi K‡i‡Q| gvQPvl wbivc` ivLvi Rb¨ wZwb 7-10 w`b ci ci 100 Mvg jeY, wUgvmb 1 Mvg Ges 50 Mvg Pb c‡qvM K‡i‡Qb Ges 15-20 w`b cici mvD‡Ri Zjv †_‡K 6-7 BwÂ cwb †ei K‡i w`‡qwQb Ges Avevi †d"k cwb w`‡q Lwj ¯^vb ciY K‡i w`‡qwQb| PvI PjvKv‡j †Zgb †Kvb †ivM‡i mgm"v nq nvB| wZwb gvQ a‡i‡Qb 12/12/2020 wL. ZwiL Ges †gvU gvQ †c‡q‡Qb 138 †KwR, weµq K‡i‡Qb 195/- †KwR `‡i| †gvU Lvevi e¨envi n‡q‡Q 80 †KwR| me LiP ev‡` Zvi wbU jvf n‡q‡Q 10,000/- UvKv|

NUbv 2 t

Rbve gvbvb, bv‡Uvi m`i, wZwb 30 dU e¨v‡mi (78000 wjUvi) e"ËvKvi mvD‡R wks gvQ †Qvo‡jb 10,000wU, †cvbvi AvKvi wQj 6000wU‡Z †KwR, †cvbv gR‡`i ZwiL 07/09/2020 wL.| Lvevi w`‡qwQb c_g 30 w`b cvDWvi, w`‡b wZb evi Ges c‡i `vbv`vi fvmgvb Lvevi e¨envi K‡i‡Q|

gvQPvl wbivc` ivLvi Rb¨ wZwb 15-20 w`b ci ci 200 Mvg jeY, wUgvmb 3 Mvg Ges 100 Mvg Pb c‡qvM K‡i‡Qb Ges 15-20 w`b cici mvD‡Ri Zjv †_‡K 6-12 BwÂ cwb †ei K‡i w`‡q‡Qb Ges Avevi †d"k cwb w`‡q Lwj ¯^vb ciY K‡i w`‡q‡Qb| PvI PjvKv‡j b‡f¤^i gv‡m gv‡Q †ivM‡i m¤§LxY nq Ges †ek wKQz gvQ gviv hvq| G mgq gv‡Qi Mo IRb wQj cvq 60 wU‡Z †KwR| gv‡Qi wPwKrmv †`evi Rb¨ mvD‡Ri cwbi 50% cwieZb K‡i †`qv nq Ges JIa wnmv‡e †mb‡mDi 30 GgGj K‡i cici ` w`b e¨envi Kiv n‡q‡Q| Gi c‡iI Av‡iv ` evi G JIa e¨envi Kiv n‡q‡Q| kxZ gv‡Qi Lvevi MnY †ek K‡g hvq| G mgq mvDRwU‡K cvjv_b w`‡q †X‡K †`qv nq Ges iv‡Zi †ejv mvD‡Ri Ici 200 IqvUi evj Rwj‡q wKQzUv DÂZv †`evi †Póv Kiv n‡q‡Q| kxZi G mg‡q gvQ‡K wW‡gi m‡_ wfUvwgb wcig· wgk‡q LvIqv‡bv n‡q‡Q| kxZi G mgm¨ Qvov cieZ‡Z Avi †Zgb †Kvb mgm¨v †`Lv †`q wb| wZwb gvQ a‡i‡Qb 28/4/2021 ZwiL Ges †gvU gvQ †c‡q‡Qb 149 †KwR| †gvU Lvevi e¨envi n‡q‡Q 163 †KwR| me LiP ev‡` Zvi wbU jvf n‡q‡Q 10,000/- UvKv| PvI Kv‡j †ivM‡i mgm¨vi KviY‡Y Drcv`b wKQzUv Kg n‡q‡Q| wKš' cK‡ii m‡_ Zjbv Kiv‡j Drcv`b A‡bKvs‡k †ewk n‡q‡Q| mvDRwUi AvqZb 2 kZ‡Ki gZ, mvaviYZ G AvK‡ii cK‡i m‡ev"P 60 †KwR gvQ Drcv`b Kiv m¤e nq| †mLv‡b G c×wZ‡Z Drcv`Z n‡q‡Q 149 †KwR, hv `I Av‡iv †ewk Drcv`‡bi m‡hvM wQ e‡j g‡b nq|

NUbv 3 t

Rbve ingvb, KvoMvg m`i, wZwb 14 dU x 11 dU x 3.5 dU AvK‡ii (15,000 wjUvi) GKwU mvD‡R gvQ †Qvo‡jb 3000wU, †cvbvi AvKvi 4500wU‡Z †KwR| Qvovi ZwiL 29/8/2020 wL.| c_g wKQz w`b Lvevi w`‡qwQb cvDWvi, c‡i e¨envi K‡i‡Qb fvmgvb `vbv`vi Lvevi w`‡b 3-4 evi| kxZi g‡a¨ gvQPvl, gvQ †Zgb Lv`¨ MnY K‡i bvB| mvDRwU Ab¨ K‡R e¨env‡ii Rb¨ wZwb 01/03/2021 wL. ZwiL gvQ a‡i †d‡jb| G mgq gv‡Qi AvKvi wQj 75wU‡Z †KwR| †gvU Lvevi e¨envi n‡q‡Q gvÎ 15 †KwR| wZwb †Kvb †ivM‡i mgm¨v †gvKv‡ejv K‡ib bvB| wZwb gvQ wbivc` ivLvi Rb¨ 10 w`b ci ci 100 Mvg Pb I 100 Mvg jeY Ges 20 w`b ci ci 1 dU cvwbiY cwb cwieZb K‡i‡Qb| PvI PjvKv‡j gvQ †Zgb †Kvb †ivM-e¨vwa †`Lv †`q bvB|

mweavbZv t

†h‡nZ mvD‡R AvaK Nb‡Z gvQ _v‡K †m Rb¨ gvQ h‡Z fvj _v‡K †m Rb¨ mvD‡Ri cwb‡Z hLb ZLb mZ †`qv h‡e bv| †Kn gvQPvl †`L‡Z Avm‡j Z‡K gvQ a‡i †`L‡bv h‡e bv| gv‡Qi Lv`¨ c`v‡bi mgq mZ‡Z bv a‡i GKwU mvZj-IqvjvgM e¨envi Kiv fvj| c‡qvRb Qvov mvD‡Ri g‡a¨ bvgv h‡e bv| ¯^c †bU e¨envi Ki‡j cUvk cwb‡Z a‡q e¨envi Ki‡Z n‡e| Ab¨vb¨ DcKiY RxevYy g³ K‡i e¨envi Kiv fvj|

Dcmsnvi t

wks gvQ Ab¨vb¨ gv‡Qi Zjbvq AvaK cvó mg"× gvQ| cvói AvaK¨Zvi Rb¨ ‡ivMxi c_¨ wnm‡e cwiPZ Av‡Q| Av‡jwPZ gvQPv‡li c×wZU AbmiY Kiv †ek mnR Ges ¯^í cvR e¨envi K‡i Le mn‡RB GKwU mvDR ˆZvi K‡i Avgiv gvQPvl Ki‡Z cwi| Avgv‡`i N‡ii cv‡ki †`qvj‡K KvR jwM‡q ev Lwj ¯^vb _v‡K‡j Avgiv †mLv‡b mvDR ˆZvi K‡i G c×wZ‡Z gvQPvl Ki‡Z cwi| cwieZ‡ii mKj †Qv‡U-eo m`m¨ G Kv‡R h³ n‡Z cv‡i, Zv‡`i we‡bv`‡bi Gi GKwU AvKlYxq gva¨g n‡Z cv‡i GiU Ges G Kvhµ‡gi gva¨‡g evoZ Av‡qi ms¯'v‡bi cvkvcwk gvQ eo n‡j cwieZ‡ii c‡qvR‡b mvDR †_‡K gvQ a‡i LvIqv m‡hvM m"wó n‡e| Avgvi wekvm GKwU 4-5 m`m¨ wekó cwieZ‡i 10,000 wjUv‡ii GKwU U¨vsK _vK‡j Zv‡`i c‡qvRbxq gv‡Qi 50% Le mn‡RB ciY Ki‡Z cv‡i|

DcKiY mgn AvbcwZK n‡i wgk‡q n‡Z ej ˆZvi K‡i cK‡i wbi`ó ¯^v‡b †`qv †h‡Z cv‡i| A_ev †QvU AvK‡ii wc‡jU †gwkb Øviv wgkZ DcKiY Øviv wc‡jU Lvevi ˆZvi Kiv †h‡Z cv‡i| Lvevi ˆZv‡ii 12 NÈv Av‡M mvilvi ˆLj wfwR‡q ivL‡Z n‡e| wfRv Lvevi ˆZvi K‡i †ewk mgq N‡i ivLv h‡e bv| Lvgv‡i Lvevi ˆZvi Ki‡j Lv`¨i DcKiYmgn wbi`ó ZvcgvÎvq dvU‡q wm× K‡i ewb‡j Lv`¨ gv‡Qi kiv‡i †ewk KvR jvM‡e| A_ebr DcKiYmgn wm× K‡i Lvevi ˆZvi Ki‡j Lvevi Gi nRg nvi (Digestibilit) e"w× cvq|

we.`t Lv`¨ ˆZvi‡Z mvilvi ˆLj e¨envi Ki‡Z n‡j Aek¨B 12 NÈv wfwR‡q ivL‡Z n‡e| KviY ˆL‡j gv‡Qi eа‡b cvZeÜKZv m"wóKvix Dcv`vb (Alll Isocanide C?N=CH2) Av‡Q hv cwb‡Z wfwR‡q ivL‡j ÿvZKi Dcv`vb ckigZ nq|

ii) evwYwR¨K Lvevi (Artificial) t

AvaKvsk PvlI eRvi †_‡K wefb †Kv¤úvbi evwYwR¨K Lvevi µq K‡i wks gvQ Pv‡l e¨envi K‡i _v‡Kb| eRv‡i wefb Lv`¨ DcKiY (Gvg‡bv GmW, wfUvwgb, wgbv‡ij mnn) mmgf‡e wgk‡q evwYwR¨Kf‡e Drcv`Z wefb K¤úvbi DbZ gv‡bi wks gv‡Qi Lv`¨ cvIqv hv‡"Q| wks gv‡Qi eq‡mi Pvn`v‡i m‡_, g‡Li AvKvi I Avg‡Zi c‡qvRb Abhvqx wefb AvK‡ii fvmgvb Lvevi weµq K‡i‡Q| G ai‡bi Lvev‡ii GdmAvi Gi gvb †ek fvj|

evwYwR¨K Lvevi Avevi `B ai‡bi t K) WeŠÍ I L) fvmgvb

me mgq gv‡b ivL‡Z n‡e WeŠÍ Lvev‡ii †P‡q fvmgvb Lvevi AvaK fvj| WeŠÍ Lvevi cK‡i c‡qvM Ki‡j Zv mivmwi cK‡ii Zj‡`‡k P‡j hvq| G Lvev‡ii KZ Ask gvQ †L‡q‡Q Avi KZ Ask cK‡ii Zjvq Af³ve¨vq i‡q †M‡Q Zv †evSv hvq bv| Af³ Lvevi c‡P †Kej cK‡ii cvi‡ek bó K‡i bv A‡_iI AcPq NU‡q| fvmgvb Lvevi LvIqv‡j Lvev‡ii AcPq †iva Kiv hvq Ges gv‡Qi Zß gvÎv (Satisfied level) Abhvqx Lvevi mieivn Kiv hvq| wks gv‡Qi Lv`¨ mvaviYZ w`‡b `evi w`‡Z n‡e, Le †fv‡i GKevi Ges mÜvi c‡i GKevi| †gvU Lv‡`¨i 60% mÜ¨vq Ges 40% †fv‡i w`‡Z n‡e|

**L) Lv`¨ c‡qvM t** cK‡i †cvbv gR‡`i ci bmwi Lvevi 0.5 wgwg. (gv‡Qi IR‡bi 25-30% n‡i) cwb‡Z fwm‡q w`‡Z n‡e| †gvU Lvevi †f‡i Ges mÜ¨vq wef³ K‡i cK‡ii GK cvo eivei wQUv‡q w`‡Z n‡e| eo cKi n‡j mKj cvo eivei w`‡Z n‡e| Z‡e †Lqvj ivL‡Z n‡e gv‡Q Lvevi me Lv‡"Q wK bv|

me Lvevi bv †L‡j Lvev‡ii cwigvY Kwg‡q w`‡Z n‡e| Gf‡e 10 †_‡K 15 w`b ci †cvbvi AvKvi eo n‡j 0.8 wgwg. Gi `vbv`vi fvmgvb bmwi Lvevi w`‡Z n‡e| µgvš‡q gvQ eo nIqvi m‡_ m‡_ Lvev‡ii AvKvi I eo n‡e| gv‡Qi AvKv‡ii m‡_ Lvev‡ii AvKvi wK n‡e Zv wb‡¤œi ¯^wYZ‡Z †`Lv‡bv nj;

gv‡Qi AvKvi (cwZ †KwR‡Z †cvbvi msL¨v)	Lvev‡ii AvKvi (wgwg)	gv‡Qi AvKvi (cwZ †KwR‡Z †cvbvi msL¨v)	Lvev‡ii AvKvi (wgwg)
800-600	0.5	100-60	2.0
600-300	0.8	60-30	2.5
300-200	1.0	30-15	3.0
200-100	1.5		

bmwi Lvev‡ii ci, wc-÷vUvi, ÷vUvi, †MÖvqvi Ges †k‡l wdbmvi Gf‡e gvQ PvI Pjv Kv‡j µgš‡q Lvevi cwieZb Ki‡Z n‡e| gv‡Qi ^`wnK IR‡bi wfwË‡Z wb¤œiJc n‡i cK‡i Lv`¨ c‡qvM Kiv †h‡Z cv‡i|

gv‡Qi AvKvi (cwZ †KwR‡Z †cvbvi msL¨v)	Lv`¨ †`evi nvi (%)	gv‡Qi AvKvi (cwZ †KwR‡Z †cvbvi msL¨v)	Lv`¨ †`evi nvi (%)
3000-2000	50-40	110-80	14-12
2000-1200	40-30	80-60	12-10
1200-800	30-25	60-45	10-8
800-450	25-20	45-35	8-7
450-300	20-18	35-28	7-6
300-220	18-16	28-20	6-5
220-160	16-15	20-15	5-4
160-110	15-14	15-10	4-3

wks gv‡Qi eab fvj cvevi ivLvi Rb¨ gv‡Qi Lv‡`¨i m‡_ gv‡S g‡a¨ MU cewqwU· (2 Mvg/†KwR Lv`¨) wgk‡q gvQ‡K LvIqv‡bv †h‡Z cv‡i| G Qvov 10-15 w`b cici gv‡Qi Lvev‡ii m‡_ wfUvwgb wcig· I wgbv‡ij wg·vi wgk‡q LvIqv‡j gv‡Qi †ivM cwZ‡iva ÿgZv e"w× cv‡e, gv‡Qi eab fvj n‡e Ges gv‡Qi ¯^vfvK is cvIqv hv‡e|

M) bgbvqb (Sampling) t

mvaviYZ gv‡Qi bgbvKiY ej‡Z cK‡ii gvQ n‡Z wKQz gvQ a‡i gv‡Qi Mo IRb cwigvc K‡i mg¯Í gv‡Qi IRb (Biomass) †ei Kiv‡K †evSvq| bgbvq‡bi D‡Ïk¨ nj :

❖ gv‡Qi Lv‡`¨i cwigvY mgšq Kiv;
❖ gv‡Qi ¯^v¯'¨ ch©‡eÿY Kiv;
❖ gv‡Qi e"w× nvi Rvbv;
❖ gv‡Qi cwigvY m¤úK avibv †bqv|

wks gv‡Qi ZK cvZjv nIqvq †eo Rvj ev SvK Rvj w`‡q gvQ a‡i bgbvq‡b gv‡Qi †ivM msµg‡Yi SvK m"wó nq| KviY Rvj w`‡q gvQ ai‡j Z‡K ÿ‡Zi m"wó nIqvi m¤¢vebv _v‡K Ges †mLv‡b msµg‡Yi (Seconder Infection) m"wó n‡Z cv‡i Ges †m msµgY `ªæZ Ab¨ gv‡Q Qov‡q c‡o gvQ Pv‡l e¨vcK †ivM‡i m"wó n‡Z cv‡i| G Qvovl gvQ AbvKvsLZ wco‡bi m¤§LxY n‡q IRb nviv‡q Ges gvQ fvZmšÍ¯' n‡q gv‡Qi eab mgm¨v m"wó n‡Z cv‡i| wks gv‡Qi ÿ‡Î gv‡Qi bgbvqb bv K‡i fvmgvb Lvev‡ii cvZ mvov †`‡L ev gvQ KZ mg‡q wK cwigvY Lv"Q Zv ch©‡eÿY K‡i ev gvQ hLb Lvevi MnY Ki‡Z n‡e Z‡e cK‡ii DcixZ‡j Av‡m ZLb ¯^Pÿ †`‡L gv‡Qi eab ch©‡eÿY K‡i Lvevi †`evi cwigvY wbaiæcY Ki‡Z n‡e|

N) Lvevi c`v‡bi †K¸‡j t wbavwiZ mg¯Í Lvevi GKev‡i cK‡i wQUv‡bv bv w`‡q K‡qK ev‡i c‡qvM Ki‡Z n‡e Ges Lvevi c`v‡bi GKU mgq wb‡q w`‡Z n‡e| cwZ ev‡ii Lvevi K‡qK fv‡M wef³ K‡i cqvM Ki‡Z n‡e| gv‡Qi Lvevi MnY‡Yi nvi ch©‡eÿY K‡i c‡ii Lvevi w`‡Z n‡e| Avi gv‡Q memgq mgvb Lvq bv| GRb¨ mweaKf‡e gv‡Qi Lvevi MnY AvPiY ch©‡eÿY K‡i Lvevi mgšq Ki‡Z n‡e|

O) gv‡Qi Lv`¨ c‡qvM mZKZv t gvQ Pv‡l Lv`¨ e¨e¯'vcbv GKwU AZ¨šÍ ¸iæZcY KvR| KviY gvQ Pv‡li SvK mgm¨ GLvb †_‡K m"wó n‡Z cv‡i|
❖ cK‡i Lvevi c‡qvR‡bi AvZvi³ †`qv h‡e bv|
❖ wks gv‡Qi ÿ‡Î Pvn`vi wKQzUv Kg Lvevi (Under Feeding) †`IqvB wbivc`|
❖ Lvevi cvZ‡`b GKB ¯^v‡b GKB mg‡q Ges cwigvZ cwigvY Lvevi w`‡Z n‡e|
❖ ewó cY w`‡b Lvevi Kwg‡q w`‡Z n‡e|
❖ cPÛ Ges †gqv` DËY Lvevi cK‡i †`qv h‡e bv|
❖ Lv`¨ msiÿY ¯^v‡b chß Av‡jv evZvm c‡e‡ki e¨e¯'v _vK‡j fvj nq|
❖ cK‡i cvZv`b GKB ¯^v‡b GKB mg‡q Ges cwigvZ cwigvY Lvevi w`‡Z n‡e|
❖ GKU †ewk mgq wb‡q gvQ‡K Lvevi w`‡Z n‡e|
❖ Lvevi AcPq n‡j Zv cK‡ii cwbi cvi‡ek bó K‡e Ges cvwYZ‡Z gv‡Qi bvbv cKvi mgm¨v mó K‡e|
❖ wks gv‡Qi m‡_ Ab¨ cRvwZi gvQ _vK‡j fvmgvb Lvev‡ii m‡_ wKQ WeŠÍ Lvevi †`qv †h‡Z cv‡i| Ab¨_vq wks gv‡Qi AvaK g‡j¨i Lvev‡i Zviv fvM emv‡e|

we.`t cK‡i m¤úiK Lvevi e¨envi Ki‡j cK‡i G‡ik‡bi e¨e¯'v ivLv c‡qvRb| KviY m¤úiK Lvev‡ii h_vh_ nRg Ges AwZKiY (Assimilation) Gi Rb¨ evoZ Aw·‡R‡bi c‡qvRb nq| cK‡ii cvi‡ek GB evoZ Aw·‡R‡bi mieivn bv _vK‡j ibie Aw·‡R‡bi (Silent Deficienc) Afve †`Lv w`‡e Ges gv‡Qi Lvevi Kg KvR jvM‡e| gv‡Qi Lvev‡ii GdmAvi fvj n‡e bv| cvqLvbv ckv‡ei m‡_ nRg nqwb Giæc Lv`¨vsk †ei n‡q cK‡ii cwbi cvi‡ek bó Ki‡e| µgvš‡q cK‡i Aw·‡R‡bi msKUvcb (Critical level Deficienc) Afve †`Lv w`‡e| gvQ cvoY Ae¯'vi m¤§LxY n‡e| cvi‡k‡l gvQ Pv‡li SvK †e‡o hv‡e|

wks gv‡Qi cK‡ii cvi‡ek e¨e¯'vcbv t

evwYwR¨K wfwË‡Z wks gv¸i gvQ Pv‡li ÿ‡Î cvZ w`b wbqwgZ n‡i Avgl mg"× Lvevi c‡qvM Kivq gv‡Qi gj ZvM Ges Lvev‡ii Dr"Qó cwb‡Z c‡P cK‡ii cvi‡ek bvB‡U‡Rb NUZ ˆRe c`v‡_i Dcw¯'wZ †e‡o hvq| Lv‡`¨ ‡cwU‡bi cwigvY hZ †ewk n‡e Zvi e‡R ZZ †ewk cwigvY bvB‡U‡Rb NUZ ˆRe c`v_ cvqLvbv m‡_ †ei‡q Avm‡e| d‡j cwb‡Z G‡gwbqv I bvB‡UU †hšÍMi Dcw¯'wZ †e‡o hvq Ges gvQ Pv‡l bvbv cKvi mgm¨v m"wó nq| GK wnmv‡e †`Lv hvq 25 fvM Avgl mg"× fvj gv‡bi 1 †KwR Lv`¨ n‡Z cwb‡Z cvq 2.49 Mvg G‡gvwbqv h³ nq| cK‡ii cwb‡Z wcGBP †Kvb KviY †e‡o †M‡j G‡gvwbqvi Av‡qvwbZ G‡gvwbqv‡Z cviYZ nq hv gv‡Qi Rb¨ gviæZK ÿwZKi| mvaviYZ cK‡ii cwb‡Z Gi gvÎv 0.02 wcwcGg Gi †ewk n‡j gvQ we‡` cto hvq|

Amino Group in Protein Rich Feed
Deaminated

$NH_4 \quad H^+ + NH_3^-$ Harmful For Fish
$NH_4 + 1.5\,O_2 \quad H^+ + NO_2$ Harmful For Fish (Nitrite)
$NO_2 + 0.5\,O_2 \quad NO_3$ Useful For Aquatic Plant (Nitrate)
cwb‡Z NO_2 Dcw¯'Z _vKvi A_ cwb‡Z O_2 NÛZ RvbZ mgm¨v n‡Z cv‡i|

g‡b ivLv `iKvi †h Avgiv gvQ Pv‡l †h cwigvY Lvevi c‡qvM Kwi Zvi 80 % eR¨ wnm‡e cK‡ii cwb‡Z wd‡i Av‡m Ges cwbi cvi‡ek bó‡K bq cK‡ii Zj‡`‡ki gwUi ¸Y¸Y bó K‡i gwUi MVb I is cwieZb NU‡q _v‡K| cK‡ii mweK cvi‡ek bó n‡j gvQ cv_wgKf‡e cvoY (Stress) Ae¯'vi m¤§LxY n‡e| cwb‡Z ÿwZK M¨vm‡i cvPhZv e"w× cv‡e, c‡qvRbxq Aw·‡R‡bi Afve n‡e, gv‡Qi Lv`¨ MnY nvi Kg h‡e, Lv‡`¨i Gd wm Avi FvZKf‡e cfweZ n‡e, cvi‡k‡l gv‡Qi bvbv cKvi †ivM n‡q gvQ goK †`Lv w`‡e| G Rb¨ cK‡ii cwbi mweK cvi‡ek fvj ivLvi Rb¨ wb¤œ iæc Kvhµg MnY Kiv †h‡Z cv‡i|

cK‡i wks gv‡Qi Pvl e¨e¯'vcbv

wks gv‡Qi cRbb ev †iY Drcv`b †KŠkj 1987-88 m‡bi w`‡K D™¢veZ n‡j I G gv‡Qi Pv‡li mdjZv Av‡m 2010-11 mv‡ji w`‡K hLb evRv‡i wks gv‡Qi Dc‡hvMx cwó mg"× Lv‡`¨i cvc¨Zv mnR nq| GK `kK Av‡M G gv‡Qi Pvl ïiæ n‡jI †`‡ki mKj AÂ‡j mgfv‡e m¤úümvwiZ nqwb| †`‡ki A‡bK †Rjvq wks gvQPvl †ek Rbwcq n‡q D‡V‡Q Ges G gvQPvl m¤úümvwiZ n‡"Q †ek `æZZvi mv‡_| wKš' mwVK Pvl c×wZ I Gi cwiPh©v fvj fv‡e bv Rvbvi Kvi‡Y AbvKvwOLZ †ivM e¨vwai Kvi‡Y A‡bK gvQPvwl‡K ÿwZM¯' n‡Z †`Lv hv‡"Q| mZivs gvQPvwl Ges gvQPvl m¤úümvi‡Y wb‡qvwRZ Kg©‡`i wbivc` wks gvQPv‡li mwVK wel‡q aviYv c`v‡bi Rb¨ G c‡Póv|

wks gv‡Qi cwiwPwZ t

❖ wks gvQ Avgv‡`i †`‡k wRIj gvQ bv‡g cwiwPZ Gi Bs‡iwR bvg Stinging Cat fish|

❖ G gv‡Qi †`n j¤v, mvgv‡bi w`K bjvKvi, wcQ‡bi w`K Pvcv, AvBkwenxb Ges gv_vi Ask Dci-wb‡P P¨vÞv|

❖ †`‡ni is †QvU Ae¯'vq ev`vgx jvj Ges eo Ae¯'vq ami Kvj‡P|

❖ g‡L Pvi †Rvov †Mvd (Barbel)I gv_vi `B cv‡k welv³ `wU KvUv (Spine) _v‡K|

❖ c"ô cvLbv (Dorsal fin) †QvU I †MvjvKwZ, cvq cvLbv (Pelvic fin) †ek j¤v, c"Q cvLbv (Cadal fin) †MvjvKwZ|

❖ wks gv‡Qi wc‡Vi `B cv‡k `wU AwZwi³ kmbhš (Accessor respirator organ) i‡q‡Q, hv Øviv cwZKj cwi‡e‡k evZvm n‡Z Aw·‡Rb MnY K‡i kmb KvR Pvjv‡Z cv‡i|

❖ Giv mwaviYZ: 20-30 †mwg. j¤v nq Ges IR‡b 300 Mvg chšÍ n‡q _v‡K| Avevm¯'j t

❖ wks gv‡Qi cavb Avevm¯'j n‡"Q Lvj-wej, nvIi-evIo I wbgw¾Z avb‡ÿZ|

❖ G gvQ K`gv³ gwUi Zjvq, M‡Z, wbgw¾Z Mv‡Qi ¸woi Zjvq ev mo‡½ emevm K‡i _v‡K|

❖ wks gvQ AvMvQv, `j, KPzwicvbv, cPv jZv-cvZv, Wvj-cvjv h³ Rjvk‡q ¯'v"Q‡›` emevm Ki‡Z cv‡i|

❖ ‡mvZnxb Ave×cwb‡Z G‡`i †ewk †`L‡Z cvIqv hvq|

Lv`¨ I Lv`¨vf¨vm t

wks gvQ wbkvPi (Noctral) cvYx| Giv iv‡Î Lvevi Mn‡Yi Rb¨ wePiY K‡i| G gvQ mefK (Omnivoros), cvKwZK Dr‡m mvaviYZ Rjvk‡qi Zj‡`‡ki Lv`¨ Lvq| GQvov wks gvQ Zv‡`i RxebP‡µi mKj chv‡q ˆZix Lvevil †L‡q _v‡K| Z‡e Zv‡`i RxebP‡µi wewfb chv‡q Lv`¨ Mn‡Y wKQUv cv_K¨ jÿ¨ Kiv hvq|

†iY chv‡q t ÿ` RjR cwYKYv (??-???????????) I †cvKv-gvKo, Av‡Uvgqv, wUDwe‡d· BZ¨w`I G‡`i AvKIYxq Lv`¨|

wK‡kvi chv‡q t R-cø¨v¼Ub I ÿ` RjR †cvKv-gvKo, Av‡Uvgqv, wUDwe‡d· BZ¨w`|

e‡qvtcvß Ae¯'vq t RjR †cvKv-gvKo, †eb‡_vm, ÿ` wPswo I gvQ, cPv ˆRe `e¨w`|

cvic°Zv I cRbb t

❖ wks gvQ GK eQ‡iB cwicKZv jvf K‡i Ges cRbbÿg nq| ¯¿x gvQ ciæl A‡cÿv AvKv‡i eo nq|

❖ mvaviYZt 40 †_‡K 100 Mvg IR‡bi GKwU wks gv‡Qi wWg aviY ÿgZv 8000-10000 wU|

❖ wks gvQ eQ‡i GKevi cRbb K‡i| G gv‡Qi cRbb †gŠmg †g †_‡K †m‡Þ¤i Z‡e Rb-RjvB gv‡m m‡ev"P gvÎvq cRbb K‡i _v‡K|

❖ Giv cvKwZK cwi‡e‡k AMfxi †Svc-Svo RvZxq Dw™`h³ GjvKv, avb‡ÿ‡Z, cvU‡ÿZ BZ¨w` GjvKvq cRbb K‡i|

❖ cwic° wWg nvjKv meR †_‡K Zvgv‡U e‡Yi nq|

❖ G gv‡Qi wbwl³ wWg AvVv‡jv nq Ges wbgw¾Z AvMvQv, ZY, Wvj-cvjv BZ¨w`‡Z †j‡M _v‡K|

❖ eZgv‡b wewfb n¨vPvwi‡Z KwÎg cRb‡bi gva¨‡g wks gv‡Qi †cvbv Drcvw`Z n‡"Q|

wks gv‡Qi cvPh¨Zv n"v‡mi KviYt

❖ †`‡k wewfb ai‡bi DbqbgjK KgKvÛ †hgb- eb¨v wbqšY eva wbgvY, AcwiKwíZ Rbc_, †mP Lvj, hÎ-ZÎ b`-b`x I Lvj-wej fivU K‡i M"n wbgvY BZ¨w` bvbwea gbl¨ m"ó Kvi‡Y Avevm¯'j n"vm I Aeÿq|

❖ cwi‡ekMZ cwieZ‡bi d‡j cvj gwU R‡g b`-b`x, Lvj-wej fivU nIqvq G gv‡Qi Avevm¯'j, wePiY I cRbb GjvKv ms‡KwPZ n‡q‡Q|

❖ Kwl Rwg‡Z KxUbvk‡Ki e¨vcK e¨envi I Gi wel¸µqvi cfv‡e cøvebfwg I g³ Rjvk‡q gv‡Qi wWg, †iY, †cvbv BZ¨w` webó nIqvqi cvkvcvwk cRbb, wePiY †ÿÎ I Avevm¯'j `wlZ|

❖ RbmsL¨vi AwZwi³ e"w×‡Z g³ Rjvkq n‡Z ÿwZKifv‡e gv (Brood) I †cvbv gvQ AvniY|

❖ wkí KjKviLvbvi eR¨ c`v_ b`-b`x I g³ Rjvk‡q †djvi d‡j GmKj c`v‡_i wel¸µqv Rjvk‡qi cwi‡ek Aeÿq|

❖ D"P djbkxj dmj Drcv`‡bi w`‡K bRi c`vb Ges Ab¨vb¨ bvbwea Kvi‡Y G gv‡Qi cvKwZK cRbb †ÿÎ I cRbb mweav n"vm|

❖ cKi, Lvj, wej BZ¨w` †m‡P wks gvQ AvniY Kivi Rb¨ G gv‡Qi cvKwZK cRbb e¨vcKfv‡e e¨vnZ n‡"Q|

❖ wej-evIo I Ab¨vb¨ wbP GjvKvq km¨ Avev` m¤úümvi‡Yi d‡j Avevm¯'j ms‡KvPb BZ¨w`|

wks gv‡Qi cvc¨Zv e"w×‡Z j‡ÿ¨ KiYxq t

❖ G gv‡Qi cvKwZK cRbb †ÿ‡Î Afqvkg ˆZwi I msiÿ‡Yi Rb¨ mvgwRK m‡PZbZv e"w× Kiv|

❖ RjR cwi‡e‡ki mô e¨e¯'vcbvi gva¨‡g G gv‡Qi esk we¯Í‡ii m‡hvM m"wó Kiv|

❖ cvKwZKfv‡e G gv‡Qi esk e"w×i Rb¨ cRbb †gŠm‡g gvQ aiv I weµq wbwl× Kiv|

❖ ˆeÁvwbK c×wZ‡Z cwiKwíZfv‡e m¤ve¨ mKj Rjvk‡q G gvQ Pv‡li AvIZvq Avbv|

❖ miKvwi †emiKvwi D‡`¨v‡M wks gv‡Qi KwÎg cRbb I †cvbvi mieivn wbwðZ Kiv|

❖ m¤úümviY Kvhµ‡gi gva¨‡g †`‡ki wewfb GjvKvq wks gvQ Pv‡li Kjv-†KŠkj c`kbx I cwkÿ‡Yi e¨e¯'v Kiv|

wks gv‡Qi cvóMZ ¸iæZ t

wks gv‡Qi cvó¸Y Ab¨vb¨ gv‡Qi Zjbvq A‡bK †ewk Ges †L‡Z LeB m¯^v`| †ivM g³i ci ¯^v‡¯'¨i DbwZi Rb¨ †ivMxi c_¨ wn‡m‡e G gvQ mgv`"Z| G gv‡Qi Awgl mnR cvP¨ I KvUv big nIqvq mn‡RB nRg nq Ges kixi MVb I iÿYv‡eÿ‡Y mnvqZv K‡i| wewfb mgxÿvq †`Lv †M‡Q wfUvwgb ÔGÕ Gi Afv‡e cwZ eQi 30 nvR‡ii AwaK wkï ivZKvbv †iv‡M AvµvšÍ nq| MvgxY gvb‡li kZKiv 57 fvM c‡qvRbxq wfUvwgb ÔGÕ, 89 fvM ÔAvqibÕ, 80 fvM ÔK¨vjwkqv‡giÕ, Afv‡e Ges 53 fvM i³ kb¨Zvq fM‡Q| gvbe †`‡n c‡qvRbxq cwó Pvwn`vmn wfUvwgb Ges LwbR Dcv`v‡bi Afve ci‡Y †QvU cRvwZi gv‡Qi ¸iæZ Acwimxg| †`kxq †QvU cRvwZi gvQ we‡kl K‡i gjv, †Xjv, ˆK, wks, gv¸i gvQ †Pv‡Li Rb¨ LeB DcKvix Ges i³ ¯íZv †iv‡a mnvqZv K‡i|

cwó¸b we‡ePbvq wks gv‡Qi cwó¸b eo gv‡Qi Zjbvq A‡bK †ewk| G gv†Q DÓP gvÎvq Awgl, wfUvwgb, K¨vjwkqvg I Ab¨vb¨ gvB†µv-wbDwU†q›U _v†K| gv†Qi g†a¨ wks gv†QB m†evÓP cwigv†Y dmdivm cvIqv hvq| cwó¸b we‡kłY Ki‡j †`Lv hvq †h, cwZ 100 Mvg f¶Y‡hvM¨ wks gv‡Q †cwUb- 22.80 Mvg, †mn- 0.60 Mvg, AvqiY- 0.80Mvg, K¨vjwmqvg- 0.172Mvg Ges dmdivm- 0.30Mvg i‡q‡Q| wks gv†Qi mv†_ Ab¨vb¨ gv†Qi cwói ZjbvgjK wPÎ wb†¤ D†jøL Kiv n†jv|

cvZ 100 Mvg f¶Y‡hvM¨ gv‡Q:

gv‡Qi cRvZ		†cwUb (Mvg)	†¯n (Mvg)	Avqib (Mvg)	K¨vjwkqvg (Mvg)	dmdivm (Mvg)
†QvU gvQ	wks	23.00	0.60	0.80	0.67	0.65
	ˆK	14.80	8.80	1.31	0.42	0.39
	gv¸i	23.10	2.00	0.70	0.17	0.30
	cve`v	19.20	2.10	1.30	0.31	0.21
	†Usiv	19.20	6.50	0.30	0.27	0.17
	Gjv	15.80	4.10	0.007	1.071	
	cwU	18.90	2.40	0.96	1.06	0.95
eo gvQ	i"B	16.6	1.40	0.001	0.68	0.15
	g‡Mj	19.5	0.80	0.90	0.35	0.28
	wmjfvi Kvc	16.3	1.10	0.011	0.268	0.382
	Bwjk	21.80	19.40	0.002	0.18	0.28
	†evqvj	15.40	2.70	0.62	0.16	0.49
	AvBo	15.10	1.30	0.36	0.38	0.18

cwó¸b we‡ePbvq wks gv‡Qi cwó¸b eo gv‡Qi Zjbvq A‡bK †ewk| G gv†Q D"P gvÎvq Awgl, wfUvwgb, K¨vjwkqvg I Ab¨vb¨ gvB†µv-wbDwU†q›U _v†K| gv‡Qi g‡a¨ wks gv‡QB m‡ev"P cwigv‡Y dmdivm cvIqv hvq| cwó¸b we‡kłY Ki‡j †`Lv hvq †h, cwZ 100 Mvg f¶Y‡hvM¨ wks gv‡Q †cwUb- 22.80 Mvg, †mn- 0.60 Mvg, AvqiY- 0.80 Mvg, K¨vjwmqvg- 0.172 Mvg Ges dmdivm- 0.30 Mvg i‡q‡Q| wks gv‡Qi mv‡_ Ab¨vb¨ gv‡Qi cwói ZjbvgjK wPÎ wb‡g D‡jŁ Kiv n‡jv|

wks gvQPv‡li ¸i"Z t

❖ wks gv‡Qi cwó¸b A‡bK †ewk Ges‡L‡Z LeB m¯^v`|

❖ KvUv Kg _vKvi Kvi‡Y †QvU-eo mKj gvb‡li cQ›`|

1) cwb mieivn

gvQPvl Pjv Kv‡j cK‡i gv‡S g‡a¨ ewni †_‡K cwb mieivn K‡i AvswkK cwb cwieZb Ki‡j gvQ fvj _vK‡e, gvQ fvj cwi‡ek cvIqvq ¯^v"Q›`¨ †eva Ki‡e, gv‡Qi Lvevi MnY nvi evo‡e Ges MnYKZ Lv`¨ mn‡R nRg n‡e| †Lqvj ivL‡Z n‡e cK‡i AwaK Avqib h³ cwb e¨envi bv KivB fvj| mieivnKZ bZb cwb‡Z cK‡ii cwbi ÿwZKi M¨vm cvZjv (Diltion) n‡e|

2) jeY c‡qvM

gvQPvl Pjv Kv‡j 15-20 w`b cici cwZ cK‡i kZK cwZ 200 Mvg nv‡i jeY c‡qvM Kiv †h‡Z cv‡i| mg¯Í cK‡ii jeY fvj fv‡e wQwU‡q w`‡j cwbi cwi‡ek I cwbi ¸bv¸Y fv‡jv _v‡K|

3) gvQ Pvl PjvKvjb Pb c‡qvM

gvQ Pvl PjvKv‡j cwi‡ek fvj ivLvi Rb¨ cwZ 15-20 w`b ci ci kZvsk cwZ 150 Mvg nv‡i mv`v PvKv †cvov Pb cwb‡Z fvj fv‡e ¸wj‡q mg¯Í cK‡i wQwU‡q w`‡Z n‡e| cK‡i chvqµ‡g GKevi Pb Ges GK evi wRIjvBU (100 Mvg cwZ kZvs‡k) e¨envi Kiv †h‡Z cv‡i| wRIjvBU cK‡ii ÿwZKi M¨vm †kvlY K‡i cwi‡ek Dbq‡b fwgKv iv‡L|

we.`t gvQ Pvl Pjv Kv‡j cK‡i †Kvb mgq GKev‡i kZvs‡k 1 †KwR nv‡i Pb c‡qvM Kiv hv‡e bv Ges †Kvb Kvi‡Y c‡qvM Ki‡Z n‡j 2 w`b weiwZ‡Z `B fv‡M fvMK‡i c‡qvM Ki‡Z n‡e| gvQ cK‡i _vK‡j cK‡i Pb me mgq mKv‡ji w`‡K c‡qvM Kiv gv‡Qi Rb¨ wbivc`, KviY mKv‡j cK‡ii wcGBP mvaviYZ Kg _v‡K|

4) RxevYbvkK c‡qvM (Sanitier)

cK‡i wks I gv¸i gvQ Pvl PjvKvjb cK‡i wewfb ÿwZKi †ivM RxevYi AwaK¨ †`Lv w`‡Z cv‡i hv gv‡Q †iv‡Mi m"wó Ki‡Z cv‡i| G Rb¨ mZKZvgjK e¨e¯'v wn‡m‡e gvQ Pvl PjvKv‡j wbqwgZ weiwZ‡Z (gv‡m GKevi) cK‡ii cwi‡e‡ki Rxevb aŸsk Kivi Rb¨ evRv‡i cvß †h ‡Kvb GKwU RxevY bvkK (Bactricide) c‡qvM Kiv †h‡Z cv‡i| G‡Z gvQ wbivc` _vK‡e|

5) Zj‡`‡ki eR¨ †kvab

gv‡Qi eR¨ †_‡K cK‡ii Zj‡`‡k †h ÿwZKi M¨vm R‡g Zv `i Kivi Rb¨ wbqwgZ weiwZ‡Z evRv‡i cvc¨ Ycca wbRvm mg"× DcKiY (2 gm/Dec.) e¨envi Kiv †h‡Z cv‡i| G Qvov I gvQ Pvl Pjv

Kv‡j cwZ gv‡m GK †WvR †cvev‡qvwU· e¨envi Kiv †h‡Z cv‡i| G‡Z ÿwZKi M¨vm `i Kivi cvkvcvwk DcKvix e¨v‡±wiqvi cwigvY e"w× cv‡e| d‡j ÿwZKi e¨v‡±wiqvi cwigvY K‡g hv‡e| evRv‡i †ek K‡qKwU †cvevqwU· cvIqv hvq| †h †Kvb GKwU †cvevqwU· cwigvY gZ wb‡q 200 Mvg wPwb Ges 20 wjUvi cwb‡Z 12 N›Uv wfwR‡q †i‡L cK‡i c‡qvM Ki‡Z n‡e| G wgk‡Y 10 Mvg Aw·‡Rb mieivnKvix †mvwWqvg cvi Kve‡bU e¨envi Kiv †h‡Z cv‡i| m"ó DcKvix e¨v‡±wiqv cK‡ii Zj‡`‡ki ˆRe c`v_ AcmviY K‡i ÿwZKi ivmvqwbK †hŠ‡Mi iæcvšÍi NwU‡q cK‡i mweK cwi‡e‡ki Dbqb NUv‡e|

we.`: gwmK wbqwgZ KvR t cK‡ii mweK ˆRe wbivcËvi (Bio-Secrit) Rb¨ c_‡g RxevbbvkK, Zvi GK w`b c‡i M¨vm `wiKviK Ges Zvi I 2 w`b c‡i †h †Kvb GKwU †cvevwU· cwZ gv‡m iæwUb gwdK e¨envi Ki‡Z n‡e| gvQ Pv‡l †Kvb cKvi mgm¨v bvB, Zvi c‡il gv‡Qi Pvl wbivc` ivLvi Rb¨ G Kvhµg Pvwj‡q †h‡Z n‡e|

GKwU fvj gv‡bi †cvevqwU‡· wb‡¤ wjwLZ DcKvix e¨v‡±wiqvi mgšq _v‡K| Z‡e evRv‡i cvß †cvevqwU· †Kbvi Av‡M †`‡L wb‡Z n‡e †h Zv‡Z †Kvb †Kvb e¨v‡±wiqvi mgšq Av‡Q| AwaK e¨v‡±wiqvi mgšq h³ †cvevqwU· †Kbvi †Póv Ki‡Z n‡e Zvn‡j ‡ewk DcKvi cvIqv hv‡e|

❖ *Alcaligenes denitrificans*	❖ *Pediococcus acidilactici*
❖ *Bacillus licheniformis*	❖ *Pseudomonas denitrificans*
❖ *Cellulumonas cartae*	❖ *Rhodobacter sphaeroides*
❖ *Nitrosomonas eutropha*	❖ *Rhodococcus sp*
❖ *Nitrobacter winogradskyi*	❖ *Sacchromyces cerevisiae*

†cvevqvUKm c‡qv‡Mi DcKvwiZv t

❖ cK‡ii Zjvq Rgv nIqv ˆRe `e¨ ˆRweK cwµqvq †f‡½ †d‡j|

❖ ÿwZKi `lY Gi wel wµqv Ges Lvivc MÜ `i K‡i|

❖ Zj‡`‡k ˆRe¨ `e¨ Rg‡Z †`q bv|

❖ DcKvix e¨v‡±wiqvi we¯Ívi NwU‡q ÿwZKi e¨v‡±wiqvi esk we¯Ív‡i cwZeÜKZv m"wó K‡i|

❖ m‡ewcwi gv‡Qi ¯^v¯'¨ miÿv K‡i|

6) hwšK G¨v‡iUi ¯'vcb

eZgv‡b A‡bK gvQ Pvwl cK‡i Aw·‡Rb NvUwZ †gvKv‡ejv Kivi Rb¨ c¨v‡Wj ûBj G‡iUi e¨envi Ki‡Qb| G e¨e¯'v wKQUv e¨qeûj n‡jI wbivc`| mvaviYZ cK‡i Aw·‡Rb mieivn e"w× Kiv †M‡j AwaK nv‡i gvQ Pvl Kiv hvq Ges AwaK Drcv`b jvf Kiv qvq| G ai‡bi e¨e¯'v Mn‡Y cK‡ii cwbi wewfb ¯Í‡ii cwói wgkY N‡U Ges cK‡ii Drcv`bkxjZv e"w× cvq| we‡kl K‡i kx‡Z cwbi Dc‡ii ¯Íi mn‡R Mig nq Ges G¨v‡iUi cwiPvjbv Ki‡j cwbi Dc‡ii ¯Í‡ii DÂZv mKj ¯Í‡i mÂvjb NUv‡bv hvq| G‡iUi e¨envi Ki‡j cK‡ii cwbi cwó Dcv`vb mIgfv‡e cK‡i wgkb NU‡e, cwbi ZvcgvÎv mn `weZ Aw·‡Rb e"w× cvq Ges mvgwMKfv‡e gv‡Qi Drcv`b e"w× cvq|

gv‡Qi †ivM evjvB e¨e¯'vcbv t

†ivM evjvB gvQ Drcv`‡b Ab¨Zg AšÍivq| KwoLZ Drcv`b †c‡Z n‡j gv‡Qi ¯^v¯'¨ e¨e¯'vcbv I mô RjR cwi‡ek eRvq ivLv GKvšÍ c‡qvRb| wewfb Kvi‡Y gv‡Qi †ivM n‡Z cv‡i| G mKj KviY mg‡ni Ab¨Zg cavb n‡"Q cK‡ii cwbi MYMZ gv‡bi cwieZb I `lY Ges gv‡Qi cwói Afve RwbZ Kvi‡Y †ivM cwZ‡iva ÿgZv n"vm| gv‡Qi Pv‡li †ÿ‡Î gv‡Q hv‡Z †ivM bv nq †m e¨e¯'vcbv MnY wPwKrmv c‡q‡Mi †P‡q AwaK KvhKi| KviY gv‡Q †ivM †`Lv w`‡j Zvi mwbwðZ wPwKrmv AZ¨šÍ RwUj Ges e¨qeûj| gvQ cwbi wb‡P emevm K‡i, Zvi ewn¨K cwieZb mn‡R †evSv hvq bv, mg¯Í gvQ a‡i †Kvb ai‡bi wPwKrmv c‡qvMI Kiv hvq bv| †ivM n‡j mKj cwYi gZ gvQ I Lvevi MnY Kwg‡q †`q, d‡j Lvev‡ii mv‡_ Jla c‡qvM K‡i gv‡Qi wPwKrmv c`vbI mnR bq| wks gv‡Q mvaviYZ wb¤ wjwLZ †ivM ‡ewk †`Lv hvq t

1) e¨v‡±wiqv RwbZ †ivM

mvaviYZ AwaK Nb‡Z gvQ Pvl Ki‡j Ges c‡qvR‡bi AwZwi³ Lvevi c‡qvM Ki‡j Ae¨eüZ Lvevi I ˆRe c`v_ cK‡ii Zj‡`‡k R‡g cP‡bi d‡j cwb `wlZ nq| `wlZ cwi‡e‡k e¨v‡±wiqv `æZ esk we¯Ívi K‡i| mvaviYZ e¨v‡±wiqvRwbZ †ivM msµvgK|

j¶Y

❖ †jR I cvLbvq mv`v `vM †`Lv hvq

❖ †jR I cvLbvq cPb a‡i Ges a‡i a‡i ÿq cvß nq|

❖ is d¨vKv‡k n‡q hvq|

❖ djKv d‡j hvq, d¨vKv‡k nq I c‡P hvq|

cvZKvi

cK‡i †d"k cwb w`‡Z n‡e|

cwZ kZ‡K 50 Mvg weøwPs (30%) cvDWvi †`qv †h‡Z cv‡i|

Bnv QvovI wUg‡mb, mvbwkDi A_ev gvB‡µvwbj e¨envi Kiv †h‡Z cv‡i|

Gi cvkvcvwk Lvev‡ii mv‡_ wfUvwgb wm c‡qvM Ki‡Z n‡e|

2) wks gv‡Qi g‡L I KvUvq mv`v `vM †ivM

wks gvQ Pv‡l G †ivM †`Lv w`‡j gvQ Dj¤Kfv‡e cwbi Dc‡ii ¯Í‡i †f‡m _v‡K| Le fvj K‡i ch‡eÿY Ki‡j gv‡Qi g‡L Ges ` cv‡ki KvUvi †Mvovq mv`v `vM †`Lv hvq| cwZ w`b wKQ gvQ gviv hvq Ges cK‡ii Zj†`‡k Rg‡Z _v‡K|

cwZKvi

cK‡i †d"k cwb w`‡Z n‡e|

cwZ kZ‡K 50 Mvg weøwPs (30%) cvDWvi †`qv †h‡Z cv‡i|

Bnv QvovI wUg‡mb, mvbwkDi A_ev gvB‡µvwbj e¨envi Kiv †h‡Z cv‡i|

Gi cvkvcvwk Lvev‡ii mv‡_ wfUvwgb wm c‡qvM Ki‡Z n‡e|

cvZKvi t Lvev‡ii mv‡_ OTC (Oxtetracclene) 4-5 w`b w`‡Z n‡e| Gi cvkvcvwk Lvev‡ii mv‡_ wfUvwgb wm c‡qvM Ki‡Z n‡e| cK‡i cwb‡Z RxevYbvkK c‡qvM Ki‡Z n‡e| GLv‡b D‡jøL¨ †h, †Kvb G›Uev‡qvwUK c‡qv‡Mi ci Zvi DB_‡Wvj wcwiqW cvi K‡i gvQ evRv‡i cvVv‡Z n‡e| G †ÿ‡Î 21 w`b c‡i gvQ evRv‡i cvVv‡Z n‡e| Z‡e we‡klfv‡e D‡jøL _v‡K †h gv‡Qi †ÿ‡Î G›Uev‡qvwU‡Ki †WvR h_vh_fv‡e gvbv hvq bv| GRb¨ DbZ †`‡k gvQ Pv‡l †Kvb cKvi G›Uev‡qvwUK e¨envi Kiv nq bv| G›Uev‡qvwU‡Ki c‡qvM gvÎv Kg †ewk n‡j cwi‡e‡k G›Uev‡qvwUK †iwRó¨vÝ e¨v‡±wiqvi cv`fe †`Lv †`q hv Rb ¯^v‡¯'¨i Rb¨ AZ¨šÍ ÿwZKi|

we.`t G›Uev‡qvwUK gvQ‡K Lvlqv‡j Zv ev‡qvGKg‡jkb (Bioaccmlation) cwµqvq kix‡i Rgv nq| G‡ÿ‡Î e¨eüZ Jl‡ai wbt‡kwlZ mgq (Withdrawal Period) _v‡K| GUv D³ Jla ev wKUbvk‡K `fv‡e †jLv _v‡K| 1) H Jla e¨env‡ii GZ w`b ci gvQ evRv‡i weµq Kiv hv‡e| 2) wWwM w`b wnmv‡el †jLv _v‡K| †hgb 250 wWwM w`b, A_ H Jla e¨env‡ii mgq w`‡bi Mo ZvcgvÎv †ei K‡i H msL¨v w`‡q †gvU wWwM w`b‡K fvM Ki‡j hZ DËi n‡e ZZ w`b c‡i gvQ evRv‡i †`qv hv‡e| A_vr H G›Uev‡qvwU‡Ki wbt‡kwmZ n‡Z me‡gvU ZZ w`b jvM‡e|

❖ Am¯ I †ivMgy³ ci ¯^‡¯'¨i DbœZi Rb¨ †ivMgy³ Lv`¨ mn‡m‡e wksgvQ mgv`Z|
❖ Aí ¯'v‡b AwaK Nb‡Z PvI Kiv hvq weavq ¯í mg‡q AwaK gybvdv ARb m¤e|
❖ ewYwR¨K PvIev‡` wks gvQjvf RbKcY¨|
❖ Pvwn`v †ewk _vKvq evRvi gj¨ †ewk|
❖ †`‡ki cvkvcvwk we‡`‡k I e¨vcK Pvwn`v Av‡Q|
❖ wks gv‡Qi †ivM evjvB Kg|
❖ Aí mg‡q AwaK Drcv`b|
❖ Kgms¯'vb m„wói gva¨‡g `wi` we‡gvPb m¤e nq|

wks gvQ PvI c×wZ t
wks gv‡Qi cixÿvgjK PvI cv_wgKfv‡e cvsMv‡ki mw_ dmj wnmv‡e ïiæ nq| G awivevwnKZvq G gv‡Qi ewYwR¨Kfv‡e PvIev` m¤úmwiZ n‡q‡Q| cv_wgKfv‡e gqgbwms‡n G gv‡Qi †cvbv Drcv`b ïiæ n‡j I eZgv‡b e¸ov, h‡kvi, biwms`x †Rjvq G gv‡Qi †cvbv Drcv`b ïiæ n‡q‡Q Ges G gvQ Pv‡li e¨vcK m¤úmviY N‡U‡Q| A‡bK GjvKvi 60-70% cK‡i wfb wfb AvsiM‡K n‡j I wks gv‡Qi PvI n‡"Q †ek jvfRbK fv‡e| PvI jvfRbK nIqvq cwZwbqZ G gvQ Pv‡li cK‡ii msL¨v e"w× cv‡"Q| †Kej Pv‡li cK‡ii msL¨vq †h e"w× cv‡"Q Zv bq, Pv‡li wbweoZvI (Intensification) evo‡Q| DbZ gv‡bi Lv‡`¨i mieivn mnR jf¨ nIqv G gvQ Pv‡li m¤úmvi‡Y mnvqK fwgKv ivL‡Q| G gv‡Qi †cvbv Drcv`b c×wZI †ek mnR nIqvq †emiKvix chv‡q ¯'vbxq n¨vPvwi gwjKMY chwß cwigv‡Y †cvbv gvQ Drcv`b K‡i G gvQ Pv‡I wekvj fwgKv ivL‡Q| †cvbvi mnR cvc¨Zv, Pv‡li c×wZ, D"P evRvi gj¨ m‡evcwi G cRwZi ^Re ^ewkô¨ (Biological Character) we‡ePbv K‡i wks gvQ Pv‡li A_‰bwZK mieav A‡bK|

ewsjv‡`‡k eZgv‡b wewfb c×wZ‡Z wks gvQ PvI n‡"Q| h_vt
❖ cK‡i Kvc RvZxq gv‡Qi mv‡_ wks gv‡Qi wgk PvI ;
❖ cK‡i wks gv‡Qi GKK PvI ;
❖ cK‡i ¸jkv, cve`v, †Usiv gv‡Qi mv‡_ wks gv‡Qi wgk PvI ;
❖ ev‡qvd‡K wks gvQ PvI ;
❖ nvD‡R wks gv‡Qi GKK PvI ;
❖ eUgwKb †imI‡q chw³‡Z wks gvQ PvI |

wks gvQ Pv‡l cK‡ii cwbi †fŠZ I ivmvqwbK ¸Yv¸Y t
- cwbi MfxiZv: 3.5 n‡Z 4.5 dU ;
- cwbi ZvcgvÎv: 25-32 wWMÖx †mjwmqvm, 28-30 wWMÖx †mjwmqvm DËg ;
- cwbi ¯'"QZv: 20-30 †m.wg.; 25 †m.wg. DËg ;
- wcGBP: 6.5 n‡Z 9.0; DËg 7.5 n‡Z 8.5 ;
- LiZv (Hardness): 80-200 wg. Mv/wjUvi; 70-100 wg. Mv/wjUvi ;
- `ªexfZ Aw·‡Rb (Disolved Oxgen or DO): 3-8 wg.Mv/wjUvi; Av`k 5 wg.Mv/wjUvi
- Kveb WvB-A·vBW: 5-10 wg.Mv/wjUvi; Av`k 5 wg.Mv/wjUvi ;
- A¨v‡gvwbqv: 0.05 wg.Mv/wjUvi Gi Kg ;
- bvBUvBU bvB‡Uv‡Rb: 0.1 wg.Mv/wjUvi Gi Kg ;
- bvB‡UU bvB‡Uv‡Rb: 20 wg.Mv/wjUvi Gi Kg ;
- nvB‡Wv‡Rb mvjdvBW M¨vm: 0.05 wg.Mv/wjUvi Gi Kg ;
- AvqiY: 0.2 wg.Mv/wjUvi Gi Kg ;
- dmdivm: 0.2 wg.Mv/wjUvi Gi Kg ;
- jeYv³Zv: 3 wcwcwU A‡cÿv hZ Kg ZZ fv‡jv|

cKi wbevPb t
gvQ Pv‡li Rb¨ c_‡g hv c‡qv‡Rb Zv nj cKi| cKi wbevP‡bi Dci wks gvQ Pv‡li mdjZv A‡bKvs‡k wbfi K‡i| jvfRbK fv‡e wks gvQ PvI Ki‡Z n‡j cKi wbevP‡bi †ÿ‡Î Ab¨vb¨ gvQ Pv‡li cKi wbevP‡bi b¨vq bx‡Pi welq¸‡jvi cwZ †Lqvj ivL‡Z n‡e t
❖ cKi AvqZvKvi Ges cK‡ii Zj‡`k GK w`‡K Xvj n‡j fvj nq|
❖ cKi †h †Kvb AvKv‡ii n‡Z cv‡i| Z‡e ewYwR¨K Pv‡li Rb¨ ev e¨e¯'vcbvi mieavi Rb¨ 50-100 kZvsk nIqv fvj| †ewk eo AvKv‡ii cKi n‡j Lv`¨ c`vb Ges †ivM cwZ‡iva e¨e¯'vbvq mgm¨v nq|
❖ civZb cK‡i wks gvQ fvj nq Z‡e bZb cK‡ii Zj‡`‡k ^Re c`v_ e"w×i Rb¨ mwilvi ˆLj w`‡q PvI w`‡q gwU big K‡i w`‡j fvj nq|
❖ cK‡ii MfxiZv 1.5 -2.0 wg., cK‡ii Xvj 1t1.5 †_‡K 1t2 Abcv‡Z n‡j fvj nq|
❖ cK‡ii gwUi MVb †`v-Avk ev †e‡j †`v-Avk nIqv DËg|
❖ wks gv‡Qi cK‡i Zjvq wKQUv Kv`v (10-15 †m.wg) _vKv c‡qvRb Z‡e AwaK Kv`v fvj bq|
❖ cK‡ii ^`wbK mhv‡jv‡Ki †gqv` Kvj 6-8 N›Uv n‡j fvj nq|
❖ cv‡o Qvqv c`vbKvix eo MvQ ev †Svc Svo bv _vKvq fvj|

❖ cKiwU eY¨vg³ DP cvo weikô n‡j fvj nq|
❖ cKiwU‡Z c‡qvR‡b cwb †`evi e¨e¯'v _vK‡j fvj nq|
❖ AwZwi³ cwb wb¯'vk‡bi mieav _vK‡j fvj nq|
❖ cK‡ii mv‡_ fvj †hvMv‡hvM e¨e¯'v _vK‡j PvI DcKiYmn gv‡Qi Lv`¨, Drcvw`Z gvQ cwien‡b mieav nq|
❖ e¨e¯'vcbvi mieavi Rb¨ cK‡ii Ae¯'vb ewoi KvQvKwQ n‡j fvj nq|

Pv‡li mgq Kvj t
Pwli wbR¯ bvmwi‡Z †cvbv gR` _vK‡j kx‡Zi c‡i gvP gv‡mi ïiæ‡ZB †cvbv gR` K‡i †m‡Þ¤i chšÍ jvjb cvjb Ki‡j gv‡Qi Mo IRb 70 Mvg n‡q hvq| Avevi bZb †cvbvi cvc¨Zvi Dci wbfi K‡i PvI †g gv‡m †cvbv gR` Ki‡j evRvi `‡ii Dci wbfi K‡i kx‡Zi c‡i gvP gv‡mi †k‡l weµq Gi Rb¨ †i‡L †`qv †h‡Z cv‡i| kx‡Zi K‡qK gvm gvQ †K mvaviYZ Kg Lvevi w`‡Z nq| †h me cK‡i kx‡Zi mgq chwß †iŠ`c‡o ev Mfxi bjK‡ci cwb wbqwgZ mieivn Kiv nq †m me cK‡ii gvQ ¯'vfwe‡Ki gZ Lvevi MnY K‡i| kx‡Zi c‡i 1 gvm fvjfv‡e Lvevi c‡qvM K‡i gvQ evRviRvZ Ki‡j gv‡Qi AvKvi eo nq Ges fvj `vg I cvIqv hvq| Gfv‡e wks gvQ Pwliv eQ‡i GK ev GKwaK gv‡Qi djb jvf K‡i _v‡Kb|

wks gvQ Pv‡li gR` ce e¨e¯'vcbv t

wks gvQPv‡li cKi c¯'wZ t Pv‡li cKi e¨e¯'vcbvq cKi c¯'ZKvjxb mg‡q cKi ms¯'vi Kiv AZ¨šÍ Riæix| gvQ Pv‡li mdjZv A‡bKvs‡k Gi Dci wbfi K‡i| cKi ms¯'v‡ii †ÿ‡Î wb¤wjwLZ KvR ¸‡jv Ki‡Z n‡e|

cvo †givgZ t cK‡ii cvo Ggb DP Ki‡Z n‡e hv‡Z ¯'vfwveK eb¨vq W‡e bv hvq| cvo fvsMv _vK‡j k³ K‡i †e‡a w`‡Z n‡e| hv‡Z ewn‡ii ivÿ‡m I AevÂZ gvQ cK‡i c‡ek Ki‡Z bv cv‡i| cv‡o MZ _vK‡j Zv f‡i w`‡Z n‡e| hv‡Z ewn‡ii cwb P‡q cvo †f‡½ †dj‡Z bv cv‡i|

cv‡oi Xvj †givgZ t cKi cv‡oi Xvj fv½v _vK‡j ev Xv‡ji Mv‡q MZ _vK‡j †givgZ Ki‡Z n‡e Zv n‡j cvo mn‡R fv½‡e bv| cv‡oi Xvj 1t2 Abcv‡Z ivLv `iKvi| G‡Z cvo fv½‡ebv, Rvj Uvbv mnR n‡e Ges mwVKfv‡e gvQ AvniY Kiv hv‡e| m‡hi Av‡jv KvhKifv‡e cK‡ii cwb‡Z co‡j cvKwZK Lv`¨ Drcv`‡b mnvhK n‡e|

**Zjvi AwZwi³ Kv`v AcmviY t** cK‡ii Zjvq 10-15 †m.wg. Gi †ewk Kv`v _vK‡j Zv Z‡j †dj‡Z n‡e|Zjvq AwZwi³ ^Re c`v_ _vK‡j wel³ M¨vm m"wó n‡Z cv‡i, mn‡R niiv Uvbv hvq bv I Aw·‡Rb mgm¨v n‡Z cv‡i| cK‡ii Zj‡`‡ki gwU cK‡ii cv‡oi Dc‡i w`‡Z n‡e| Xv‡j Kv`vi Zjvi gwU †`qv fvj, Ab¨_vq cK‡i cwb †`evi ci Xv‡ji gwU µgvš‡q cbivq cK‡ii Zj‡`‡k P‡j hv‡e Ges cwi‡ek bó Ki‡e| GLv‡b D‡jøL _v‡K †h wks gv‡Qi cK‡i wKQUv Kv`v _vK‡j fvj nq|

gvQ Avni‡Yi Rb¨ Mfxi Ask (FishCatch Pit) †givgZ t wks gvQ mn‡R aivi Rb¨ cK‡ii Zj‡`k GKw`‡K Xvj n‡Z n‡e Ges cK‡ii AvqZ‡bi Dci wbfi K‡i (10 x 10 eMdU AvKv‡ii) †hw`‡K cKiwU Xvj †mw`‡K GKwU ZjbvgjK Mfxi Ask m"wó Ki‡Z n‡e| Giæc e¨e¯'v MnY Ki‡j cwb †mP w`‡q gvQ aivi mgq mg¯Í gvQ cwbi mv‡_ J M‡Zi gv‡S Rgv n‡e Ges gvQ mn‡R AvniY Kiv hv‡e| wks gvQ †h‡nZ Rv‡j me Av‡m bv Ges cwb †mP w`‡q ai‡Z nq †mRb¨ cK‡ii Xvj As‡k Gai‡bi e¨e¯'v AZ¨šÍ mnvqK| cK‡i G ai‡bi Mfxi Ask _vKvq cK‡i cwb mn‡R †mP w`‡q wbt‡km Kiv hvq|

cv‡oi eo Mv‡Qi Wvjcvjv QvUvB t hw` cK‡ii cv‡o eo MvQ _v‡K Ges cK‡ii cwb‡Z Qvqv m"wó K‡i Z‡e, Mv‡Qi Wvjcvjv †K‡U †dj‡Z n‡e| G‡Z m‡hi Av‡jv mn‡R I KvhKifv‡e cK‡ii cwb‡Z co‡e, hv cvKwZK Lv`¨ Drcv`‡b mnvqK n‡e| cv‡oi Mv‡Qi Wvj bv QvU‡j Mv‡Qi cvZv cK‡i c‡o gvQ Pv‡I weN NUvq| A‡bK mgq cK‡ii Zj‡`‡k cPvcvZv R‡g ÿwZKi M¨v‡mi m"wó K‡i _v‡K| Z‡e Qvqv h³ ¯'v‡b wks gvQ PvI Kiv hvq|

cKi cv‡oi †SvcSvo cwi¯'vi Kiv t cKi cv‡oi †SvcSvo †K‡U cwi¯'vi Ki‡Z nq| G‡Z grm¨fK cvYx †hLv‡b †mLv‡b jwK‡q _vK‡Z cvi‡e bv| cKi †_‡K cwó †kvlY K‡i cK‡ii cv_wgK Drcv`bkxjZvq e¨vNvZ m"wó Ki‡Z cvi‡e bv|

cKi ïKv‡bv t wks gvQ PvI mdjfv‡e Kivi Rb¨ Aek¨B cKi ïKv‡Z n‡e| cKi ïKv‡j cK‡ii Zj‡`k Dbqb Kiv hv‡e Ges mKj ai‡bi gvQ AcmviY NU‡e| cK‡ii Zj‡`‡k R‡g _vKv mKj ai‡bi ÿwZKi M¨vm `i n‡e Ges †ivMRxevb aŸsk n‡e| cK‡ii Drcv`b ÿgZv †e‡o hv‡e| cK‡ii cvo †givg‡Z gwU cwß‡Z mieav n‡e|

gv‡Qi †ivM cwZ‡iv‡a KiYxq t
gvQ †h‡nZ cwbi wb‡P evm K‡i †m Rb¨ Zvi †ivM n‡j mn‡R wbYq Kiv ev wPwKrmv c`vb Kiv hvq bv| ev¯ÍweKc‡ÿ gv‡Qi wPwKrmv RwUj I e¨qeûj| mwVK †ivM wbYq Kiv †hgb KwVb A‡bK †ÿ‡Î h_vh_ wPwKrmv c`vb KivI KwVb| G Rb¨ gv‡Q hv‡Z †ivM bv nq †m Rb¨ m`v m‡Pó _vK‡Z n‡e| gvQ Pv‡li ïiæ †_‡KB G wel‡q we‡kl g‡bv‡hvM ivL‡Z n‡e| gv‡Qi †ivM hv‡Z bv nq †mRb¨ wb‡¤ D‡jøwLZ Kvhµg MnY Kiv †h‡Z cv‡i t
❖ cKi ïwK‡q, Pb Ges weøwPs cvDWvi c‡qvM K‡i DËg i|‡c cKi c¯'Z Ki‡Z n‡e|
❖ cK‡i ewni †_‡K ^Re c`v‡_i c‡ek m¤úYfv‡e eÜ Ki‡Z n‡e|
❖ DbZ gv‡bi m¯' mej †cvbv gR` Ki‡Z n‡e|
❖ †cvbv cwien‡b ev Ab¨ †Kvb fv‡e wks gv‡Qi Z‡K ÿZ bv nq Zv wbwðr Ki‡Z n‡e|
❖ cwbi †fŠZ ivmvqwbK ¸YMZgvb Dch³ gvÎvq ivL‡Z n‡e|
❖ gvQ †Kvb mgq cvoY Ae¯'vq bv c‡o †m wel‡q we‡kl fv‡e bRi ivL‡Z n‡e|
❖ gv‡Qi wbqwgZ cwigZ I cwóKi Lvevi w`‡Z n‡e|
❖ gvQ PvI PjvKv‡j gv‡S g‡a¨ 10-15 w`b cici wbqwgZ c`vbKZ Lvev‡ii mv‡_ wfUwgb I wgbv‡ijm Gi wcwg· wgwk‡q gvQ‡K LvIqv‡Z n‡e|
❖ Dch³ Nb‡Z gvQ PvI Ki‡Z n‡e| AwaK Nb‡Z gvQ PvIB gv‡Qi †iv‡Mi cavb KviY|
❖ c‡e Av‡jwPZ cwi‡ek e¨e¯'vcbv Kvhµg wbqwgZ AbmiY Ki‡Z n‡e|

wks gvQ Pv‡li SwK e¨e¯'vcbv
wks I gv¸i Pv‡l FZ wfwËK SwK _v‡K| mwVK e¨e¯'vcbv bv wb‡j ÿwZM¯' nevi m¤vebv _v‡K, GgbwK A‡bK mgq mg¯Í PvI e¨e¯'v ûgwKi gv‡S cwZZ n‡Z cv‡i|

K) elvKvjxb SwK t elvKv‡j AwZe"wó‡Z ev eY¨vq mg¯Í gvQ †f‡m †h‡Z cv‡i| nvjKv ¸wo ¸wo e"wói mgq cwicK wks I gv¸i gvQ cKi cvo †e‡q Ab¨Î P‡j †h‡Z cv‡i| G Kvi‡Y cK‡ii cv‡oi Pwiw`‡K ev‡ki evbv ev bvB‡jv‡bi †b‡Ui mvnv‡h¨ 3-4 dU DP K‡i †eóbx †`qv †h‡Z cv‡i|

L) ï¯‹ †gŠm‡gi SwK t ï¯‹ †gŠm‡g cK‡ii cwb ïwK‡q cwbi MfxiZv K‡g †h‡Z cv‡i| G‡Z cwbi ZvcgvÎv †e‡o cwb‡Z `ªefZ Aw·‡Rb ¯íZvi m"wó n‡Z cv‡i| cwbi MfxiZv K‡g †M‡j m‡hi Av‡jv cK‡ii Zj‡`‡k †cŠQ‡j wks gvQ A¯'w¯'‡Z c‡o hvq Ges †iv‡M AvµvšÍ n‡Z cv‡i| GRb¨ cwb †m‡Pi gva¨‡g cK‡ii cwbi MfxiZv evov‡Z n‡e| mvaviYZ wks gv‡Q Aw·‡R‡bi Afve nq bv KviY G gvQ evZvm †_‡K mivmwi Aw·‡Rb wb‡Z cv‡i|

M) kxZKvjxb SwK t kx‡Z ZvcgvÎv †ewk K‡g †M‡j wks gv¸i gvQ Pv‡I †iv‡Mi cv`fe †ewk nq| G Rb¨ kx‡Z G mKj gv‡Qi Rb¨ we‡klfv‡e hZ wb‡Z n‡e| cwZw`b †fv‡i Mfxi I AMfxi bjK‡ci cwb w`‡q cwbi ZvcgvÎv evwo‡q ivL‡Z n‡e| Lvevi c`vb Kivi †ÿ‡Î mZKZv Aej¤b Ki‡Z n‡e| †Kvb fv‡eB Pvwn`vi †ewk Lvevi c‡qvM Kiv hv‡e bv|

N) ÿwZKi M¨vm t Lv‡`¨i Aewkóvsk Ges gv‡Qi gjg‡Îi Kvi‡Y cK‡ii Zj‡`‡k ÿwZKi M¨vm R‡g e`e‡`i m"wó K‡i Ges cwb‡Z `MÜ m"wó n‡Z cv‡i| wks gv‡Q Pv‡I AwaK Awgl mg"× Lvevi e¨env‡ii Kvi‡Y cK‡ii Zj‡`‡k †ewk cwigv‡Y bvB‡Uv‡Rb NwUZ †hŠM m"wó nq hv gv‡Qi g"Z¨i KviY m"wó n‡Z cv‡i| gvQ PvI PjvKv‡j g‡Sg‡a¨ cwb cwieZb Ki‡Z n‡e| M¨vm `iK‡i Giæc Jla e¨envi Ki‡Z n‡e| cK‡ii Zj‡`‡k M¨vm n‡j A‡bK mgq Pb †`qv nq Zv me mgq mwVK bq| G‡gvwbqvg NwUZ M¨v‡mi m"wó n‡j Pb w`‡j wc GBP †e‡o hv‡e Ges Dëvdj n‡e| KviY Gmgq wcGBP Gi gvb †ewk n‡j G‡gvwbqvg (NH4), Av‡qvwbBRW G‡gvwbqv‡Z (NH3¯) cwiYZ n‡e cK‡ii cwb‡Z hvi Dcw¯'wZ gv‡Qi Rb¨ LeB ÿwZKi|

M) gv‡Qi ¯'vfweK is bv Avmv t AwaK Nb‡Z wks I gv¸i gvQ PvI Ki‡j gv‡Qi Mv‡qi A‡bK mgq ¯'vfweK is Av‡m bv| G‡Z †fv³vi Kv‡Q gv‡Qi MnY †hvM¨Zv K‡g hvq| d‡j gv‡Qi evRvi `i A‡bK mgq Kg cvIqv hvq| G mgm¨v `i Kivi Rb¨ cK‡ii AvKvi Abhvqx cK‡ii K‡qKwU ¯'v‡b KPzixcvbv/KjvgjZv/gvjÂ-†njvÂ cfwZ jZv RvZxq RjR Dw™¢`i Avkq¯'j †`qv †h‡Z cv‡i| wks-gv¸i †mLv‡b jywK‡q _vK‡e Ges Zvi Mv‡qi is ¯'vfweK iæc aviY Ki‡e| G KvR gvQ weµ‡qi 15-20 w`b Av‡M Ki‡jB Pj‡e| GQvovI evRviRvZKi‡Yi Av‡M wks gv‡Qi cwZ †KwR Lvev‡ii mv‡_ G‡fjv wRbK 3-4 Mvg wgwk‡q 4-6 w`b LvIqv‡j gv‡Qi ¯'vfweK is wbwðZ Kiv hv‡e|

gvQ AvniY I evRviRvZKiY t
gvQ Dc‡i ewYZ c×wZ‡Z wbqwgZ Lv`¨ Ges cwiPhv Pvwj‡q †M‡j 4-6 gvm eq‡m M‡o gv‡Qi AvKvi 70 Mvg n‡q hv‡e| G AvKv‡ii gvQ evRviRvZ Kivi Rb¨ Dch³ nq| gvQ Avni‡Yi ce w`‡b †Kvb cKvi Lv`¨ c‡qvM Kiv hv‡e bv| wks gvQ AvniY Kivi Dch³ mgq n‡jv iv‡Î †eo Rvj w`‡q †U‡b gvQ a‡i nvD‡R gR` K‡i ivLv| Z‡e cY Avni‡Yi Rb¨ cKi †m‡P m¤úY cwb AcmviY Ki‡Z nq| wks gvQ wel³ KvUv_vKvq gvQ GRb¨ G gvQ aivi mgq we‡kl cš'v Aej¤b Ki‡Z n‡e| mvaviYZ cK‡ii cwb m¤úY †mP †`Iqvi c‡i GK nv‡Z gvQ ivLvi cvÎ Ab¨ nv‡Z †QvU GKwU ewU Øviv gvQ Kv`vi wfZi †_‡K a‡i nv‡Z aiv cv‡Î gR` Ki‡Z nq| nv‡Z aiv cvÎwU gm"b Ges wQ` h³ nIqv fvj| wks gv‡Qi wel³ KvUvi KviY gvQ mivmwi nv‡Z w`‡q aiv hvq bv| gvQ ewU Øviv a‡i cøwó‡Ki nvcv ev e¨v‡M‡j ivL‡Z n‡e|

K¨v‡i‡U ev LmL‡m cv‡Î bv ivLvB fvj| AvniZ gvQ evRvi cvVv‡bvi AvM chšÍ cwbi †dvqvivh³ nvB‡R ev nvcv‡Z ivL‡Z n‡e| cKi †_‡K gvQ AvniY ïiæ Ki‡j 2-3 w`‡bi wfZ‡i †kl Ki‡Z n‡e Ges G mgq †Kvb cKvi Lvevi e¨envi Kiv DwPr n‡e bv|
AvniYcieZx gv‡Qi cwiPhv (Post Harvest Care) t Avni‡Yi ci Avgv‡`i †`‡k gv‡Qi mwVK h‡Zi Afv‡e gv‡Q ¸YMZ gv‡bi ÿwZ nq, gv‡Qi mwReZv `æZ bó n‡q hvq| GRb¨ wks gvQ Avni‡Yi ci GKwU nvcvi wfZ‡i ev wm‡g‡›Ui wm÷v‡Y Rgv K‡i ivL‡Z n‡e Ges cwbi †dvqvivi †`evi e¨e¯'v Ki‡Z n‡e| cwbi mvIqv‡ii gva¨‡g gv‡Qi mv‡_ Avmv Kv`v cwi¯'vi n‡q hv‡e| memgq gvQ Ggbfv‡e ai‡Z n‡e †hb gv‡Qi Mv‡q `v‡Mi m"wó bv nq| gvQ cKi †_‡K gvQ aivi ci gvQ cwienb cv‡Î AwaK cwigv‡Y Pv‡c gvQ nvcv‡Z ev wm÷v‡Y Avbv hv‡e bv| wm÷v‡Yi g‡a¨ I aviY ÿgZvi AwaK ivLv hv‡e bv ev †ewk mgq a‡i gR` ivLv hv‡e bv| evRv‡i †ci‡Yi mgq cwienb cv‡Î AwaK Nb‡Z cwienb bv KivB fvj, KviY gvQ AvNvZ cvß n‡j †ewk mgq mwReZv _v‡K bv Ges gv‡Qi Mv‡qi is bó n‡q hvq|

wks gvQ Pv‡li jvf ÿwZ we‡køIY t
ewYwR¨Kfv‡e gvQ Pv‡li cavb jÿ¨ n‡"Q Aí e¨‡q AwaK gybvdv ARb Kiv| Kv‡RB †h †Kvb cKvi gvQ Pv‡li †ejvq Avq e¨‡qi wnmve wbiæcY Kiv AZxe Riæix KvR| wKš' Avgv‡`i †`‡ki AwaKvsk PvlI Avq e¨‡qi wnmve mwVKfv‡e K‡ib bv| mvaviYZ PvI †k‡l †gvU weµ‡qi Dci AvbgwbK wnmve wbYq K‡i _v‡K| G‡Z cKZ jv‡fi wPÎ cvIqv hvq bv| GQvov wbR¯ Lvev‡ii Rb¨ e¨eüZ, AvZ¥xq mRbmn Ab¨vb¨‡`i weuj-e›UbKZ gvQI wnmv‡e AšÍf³ nq bv| Kv‡RB gvQ Pv‡li Avq e¨‡qi wnmve mwVKfv‡e wbYb‡qi Rb¨ wnmve LvZv msiÿY Kiv Aek¨K|
wks gv‡Qi GKK Pv‡li Avq e¨v‡qi bgbv wnmve (RjvqZb 30 kZvsk) t

µ. bs	DcKi‡Yi weeiY	cwigvY	GKK `i	†gvU LiP	gše¨
1.	ms¯'vi			10,000/-	
2.	Pb	60 †KwR	20/-	1200/-	
3.	wUGmwc	6 †KwR	20/-	120/-	
4.	BDwiqv	6 †KwR	30/-	180/-	
5.	gv‡Qi †cvbv wks	30,000wU	60	18,000/-	†KwR‡Z 2000-2500 AvKv‡ii
	Kvc	150wU	5/-	750/-	
6.	Lv`¨	1500 †KwR	54/-	81,000/-	Lv‡`¨i GdwmAvi 1.5t1 a‡i wnmve Kiv n‡q‡Q
7.	wewea			15,000/-	
†gvU LiP				1,26,250/-	

Drcv`b
wks gvQ (evPvi nvi 80%, 20wU‡Z †KwR) = 1200 †KwR, †gvU gj¨ 1200 x 250 = 3,00,000/-
Kvc RvZxq gvQ (100 % evPvi nvi) = 150 †KwR, †gvU gj¨ 150 x 150 = 22,500/-
----
me‡gvU = 3,22,500/-
bxU jvf = (†gvU Avq - †gvU LiP) = 3,22,500/- - 1,26,250/- = 1,96,250/- UvKv|

gvQ Pv‡li †iKW msi¶Y
wks gvQ Pv‡li cKi c¯'wZ, †cvbv msMn, Lv`¨ c‡qvM, Jla c‡qvM, bgbvqb, AvniY, evRviRvZKiY mn cwZwU a‡ci †iKW wjwLZfv‡e msiY Kiv DËg| DËg grm¨PvI Abkxjb (Good Aqacltre Practice) Gi Rb¨ †iKW msiÿY AwZe c‡qvRb| GKwU †iKW eB‡q cKi gwj‡Ki bvg, wVKvbv, cK‡ii Ae¯'v, AvqZb, Pb, mvi, Jl‡ai bvg, c‡qv‡Mi cwigvY, ZwiL, gR` msL¨v, AvKvi, gR‡`i ZwiL, PvIKvjxb mvi I Lv`¨ c‡qv‡Mi ZwiL I gvÎv, µqgj¨, gvQ Pv‡li bgbvqb I gv‡Qi kvixwiK e"w×i nvi, AvniY I weµqgj¨ BZ¨w` Z_¨ wbqwgZ wjwce× Kiv c‡qvRb| Gme wjwLZ Z_¨ msiY Ki‡j Zv hMcZfv‡e Pwli fwel¨Z Pv‡li cwiKíbv Mn‡Y Ges bZb eQ‡ii Pv‡l Dbqb I AMmi NUv‡Z mnvqZv Ki‡e| mweK PvI e¨e¯'v gj¨vq‡b Ges Zjbv gjK wePvi we‡køl‡Y mnvqZv Ki‡e|