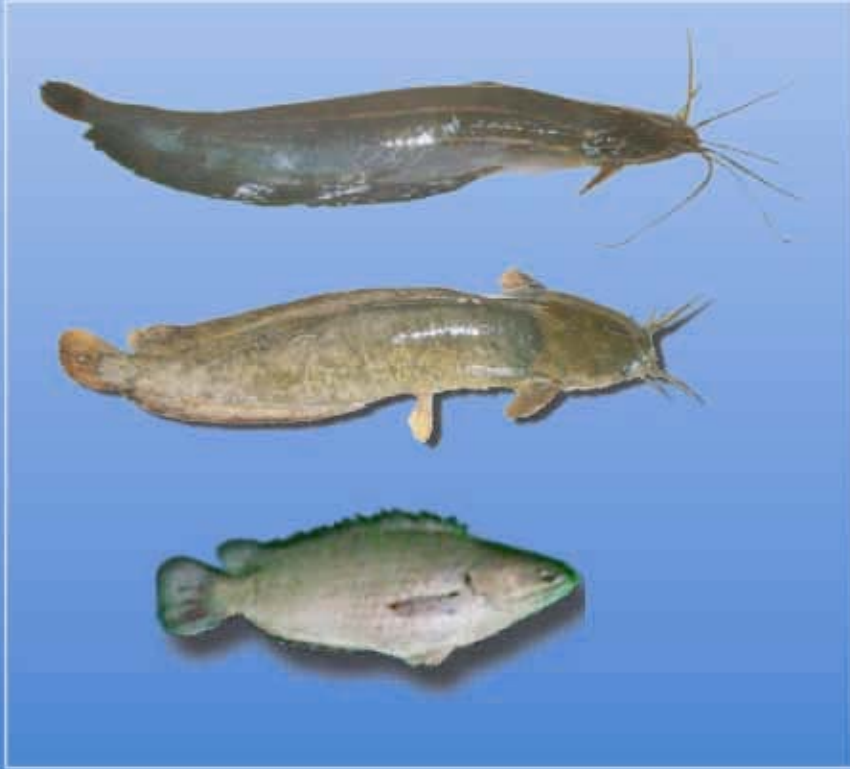


প্রশিক্ষণ মডিউল

কৈ, শিং ও মাগুর মাছচাষ ব্যবস্থাপনা কোর্স



মৎস্য অধিদপ্তরের প্রাতিষ্ঠানিক দক্ষতা জোরদারকরণ প্রকল্প
মৎস্য অধিদপ্তর, বাংলাদেশ

cik`Y gvWDj

^K, wks I gv_s i gvQPvI e`e`vcbv

Rb, 2009 wL^a

**Strengthening Institutional Capacity of DoF Project
ASPS II: DoF-Danida
Department of Fisheries, Bangladesh**

ejsj v` tki mmeR A_`wZK Dbq b AMhv`vq grm` tm±i „i“ZcY`Ae`vb cvj b Kti Avm`Q | AvZ`Kgn`s`vb
 m`p`Z, A_`wZK Dbq b, `et` wkK gy` AR` Ges c`YxR Avig`ti Pwn`v wgv`vbi t`t` G tm±ti i fvgKv
 Acwimxg | wKš` c`KwZK I gbl`m`p` wewfbæc`ZKj Zvi KvitY grm` tm±i wji m`æ`Zv evavM` n`Q | A_P
 t` tki m`vaviY gvb`ti Kv`Q Avig`ti Drm wntmte gvQ GLbl c`vbZg `vbw`Lj Kti Av`Q | w`b w`b evotQ
 RbmsL`v- wKš` gv`Qi Drcv`b tm nvti evotQ bv | wKš` Drcv`b bv evotZ cvi`j fivel`tZ t`tki gvb`ti
 Avig`ti NvUwZ ciY Kiv AZ`š`-`in n`q cotel c`YxR Avig` Z_v gv`Qi Drcv`b ew`xi Rb` Ave`w`K w`el`qul
 n`Q c`qvRbxq Kw`i Mix `Avbm`úbe``q Rb`Mw`mn wewfbæD`P dj b`xj gv`Qi Pvl`ev` ch`y`³ i e`vcK
 m`c`hviY | Dbz` Kj v`Kš`k`j i m`b`ek Nw`tq Kw`LZ j`t`q` tc`Sv`tZ n`j Zv Dch`³ c`k`q`tiYi gva`tgB AR`
 Kiv m`æ | ejsj v` tki `v`y`cwbi 260 wJ grm` c`RwZi gta` cy`y` wetePbvq wks, gv`i I `K gv`Qi
 M`b`thvM`Zv I A_`wZK „i“Zi Ab`vb` gv`Qi Zj b`vq A`b`K te`w | Gt` tki wewfbæRj`vq w`tkl Kti c`Ki,
 t`W`ev, avb t`qZ I Ab`vb` Rj`v`k`q wks, gv`i I `K gvQ P`v`ti GK w`i`v m`æ`bv w``gvb | G m`Kj c`RwZi
 gv`Qi esk`w`v`ti Rb` m`nvqK Ave`m`j m`st`Kv`p`bi d`j c`KwZK Drm n`Z Gt` i c`w`B fivel`tZ úg`Kxi
 m`y`x`b | Gm`Kj c`RwZi gv`Qi e`vcK Pwn`v I evRvi w``gvb `v`vq` i`agv`l Dbz`i ch`y`³ i m`st`k`-Nw`tq
 cwi`tek m`nvqK Dcv`q Gi m`j`g Pvl m`c`hviY NUv`Z cvi`j GKw``k thgb Drcv`b ew`x` c`te m`v`_ m`v`_
 e`vcK Rb`Mw`oi AvZ`Kgn`s`v`bi m`thvM` m`p` n`te | Avi Gi Rb` c`qvRb Dbz`i ch`y`³ i Dci c`k`q`Y tmev
 w`w`Zi cvkvcw`k D`j L`thvM` m`L`K D`t`v`³v m`p` Kiv |

Avig t`R`b L`p`B Avbw` Z n`tq`Q th `grm` Awa` Bti i c`wZ`w`bK `qZv t`Rvi `vi KiY c`k`i`0` KZ`R` ``K, wks I
 gv`i gv`Qi Pvl e`e`vc`bv` w`el`qK c`k`q`Yi gw`Dj c`k`v`k Ki`Z hv`Q | Av`iv t`R`b Avbw` Z n`tq`Q th, D`³
 gw`Dj grm` Pvl`x`-Lvgvix` i Pwn`v ci`Y c`qvRbxq wewfbæj`vM`B ch`y`³ AS`³ Kiv n`tq`Q hv` gw` ch`q`
 Kg`PZ Kg`R`Z` i Awf`AZvi dmj |

Avig w`ek`m Kw`i th, Lvgvix` ch`q` `K, wks I gv`i gv`Qi ch`y`³ w`f`P Pvl c`x`wZ B`Zv`gta`B j`v`f`R`b`K dmj
 w`m`v`te c`g`w`YZ n`tq`Q | Z`te Pvl`thvM` Ab`vb` Rj`v`k`q Gi Pvl ch`y`³ i `² m`c`hviY Kiv t`M`j cy`y` m`úbe
 t` kxq G gvQ` t`j vi Drcv`b K`q`K`Y ew`x` Kiv m`æ n`te | Gi Pvl m`c`hviY Kivi t`q`t` GB gw`Dj wJ AZ`š`-
 Dc`thvM`x` c`k`q`Y MvBW wntmte wete`PZ n`te etj Avig `p`f`v`te w`ek`m Kw`i | G gw`Dj wJ wks, gv`i I `K gv`Qi
 Drcv`b ew`xi gva`tg AvZ`Kgn`s`vb m`p` I `wi`^`^`ix`Ki`Yi t`q`t` m`nvqK Ae`vb ivL`te etj Avig c`Z`v`kv
 Kiw`Q | gw`Dj wJ `grm` Awa` Bti i c`wZ`w`bK `qZv t`Rvi `vi KiY c`k`i`i`i Aw`_K`m`nvqZvq c`k`w`kZ nI`qvq H
 c`k`i` KZ`e`q`k` RvbvB Av`š`w`K ab`ev` | gw`Dj wJ c`b`q`Y Ki`Z th m`Kj Kg`R`Z` I Kg`Pvix` AKv`š`-cwi`k`g
 Kti`Q`b Z`v` i m`Kj`k` Av`š`w`K ab`ev` RvbvB | G gw`Dj wJi gva`tg wks, gv`i I `K gvQ P`v`ti ch`y`³ i w`v`i
 NU`te Ges gv`Qi AwZwi`³ Drcv`b m`æ n`te, hvi `v`iv` `wi`^`^`w`et`gv`p`b G ch`y`³ GKw` BwZev`PK fvgKv ivL`te |

(tgv` i w`k`j Bmj`vg)
 gnvcwi`Pj`K
 grm` Awa` Bi, ejsj v` k

mWp

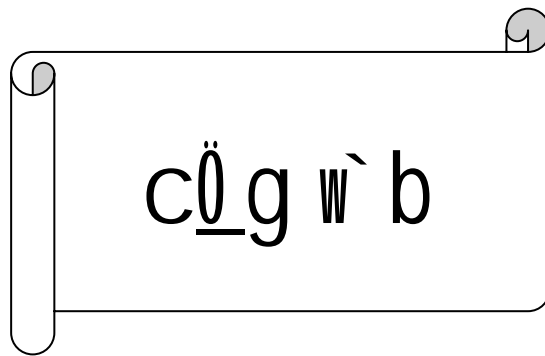
welq cØv
 cØg w`b 9-42
 wbeÜb I tKvmQfØvab
 cØK gj`vqb, tKvm`cwi vPwZ, cØky`Y cØ`vkv I bwiZgvj v
 cØK gj`vqb cØeT
 %K, wks I gv, i gvQ PwI i m`æbv I , iæZ;
 %K wks I gv, i gvtQi RxeweAvb
 gvQi PwI cwi b i , Yv, Y

wØZxq w`b 43-68
 cØi v t j v Pbv , cØZ fve I Dc`vcbv
 %K, wks I gv, i PwI `vb wbePb I cØk i i `enkØ`
 gvQ PwI gwiUi , Yv, Y
 cØ`u g K Drcv` b k i j Zv e p x
 Drm t`_ t K tcvbv msMØ, cwi enb I tkrab

ZZxq w`b 69-92
 cØi v t j v Pbv , cØZ fve I Dc`vcbv
 %K gvtQi tcvbv gRj` I Lv` e`e`vcbv
 %K gvQ PwI cwi b e`e`vcbv, ti vM I S w K w b Y Ø
 %K gvtQi Avni Y, evRvi RvZKi Y I Aw`_ R w e t k Ø I Y
 wks I gv, i gvtQi tcvbv gRj` I Lv` e`e`vcbv

PZ`_ w`b 93-98
 cØi v t j v Pbv , cØZ fve I Dc`vcbv
 wks I gv, i gvtQi Avni Y, evRvi RvZKi Y I Aw`_ R w e t k Ø I Y

cÅg w`b 99-116
 cwi t e t k i I c i w b w e o I Avav w b w e o c x w Z t Z, `K, wks I gv, i gvQ PwI i cØfve
 ` t h M e`e`vcbv



MYCÖRVZŠx evsj v`k mi Kvi
 grm" Awa`Bi, evsj v`k
 †Kvfm® mgqmP

cök¶Y tgv` t 05 w`b |
 †Kvm®`K, wks I gv, i gvQ Pvl e`e`vcbv |

w`b/Zwi L / mgq	8:00-9:00	9:00-10:00	10:00-11:00	11:00-11:15	11:15-12:15	12:15-13:15	13:15-14:00	mvÜ"Kvj xb KvR	
w`b - 1	wbeÜb I D†0vabx Abp̄vb	cök gj`vqb, †Kvm®cwi wPvZ, cök¶Y cZ`vkv I bwiZgvj v	`K, wks I gv, i gvQ Pv†li m`vebv I A_`bwiZK ,i`Zi	Pv weiwZ	`K, wks I gv, †ii Rxe%ewP†` I eZgvb †c¶vvcU	`K, wks I gv, †ii RxeveAvb	gvQ Pv†li cwi bi , Yv, Y e`e`vcbv		
w`b - 2	cpiv†j vPbv, cöZfve I Dc`vcbv	`K, wks I gv, i Pv†li `vb wbevPb I cK†ii `enkó`	`K, wks I gv, i Pv†li gwU I cwi bi †fSŠ, i vmiqvobK I `RveK , Yv, Y	Pv weiwZ	`K, wks I gv, i Pv†li cK†i ms`vi, cwi †ek Dbq̄b I wbi vcvEv teobv `vcb	cö_wgK Drcv`bkxj Zv ewx	Drm †_†K †cvbv mSMh, cwi enb	mvÜ"Kvj xb KvR	
w`b - 3	cpiv†j vPbv, cöZfve I Dc`vcbv	`K gv†Qi †cvbv gRj I Lv` e`e`vcbv	`K gv†Qi cwi b e`e`vcbv, †ivM I SmK wbbq̄	Pv weiwZ	`K gv†Qi AvniY, evRvi RvZKiY I Aw_℞ we†k†Y	wks I gv, †ii †cvbv gRj I Lv` e`e`vcbv	wks I gv, i Pv†li cwi b e`e`vcbv, †ivM I SmK e`e`vcbv	mvÜ"Kvj xb KvR	
w`b - 4	cpiv†j vPbv, cöZfve I Dc`vcbv	wks I gv, i gvQ AvniY, evRvi RvZKiY I Aw_℞ we†k†Y	gw cwi`k						gv cwi`k cöZ†e`b `Zwi
w`b - 5	cpiv†j vPbv, cöZfve I Dc`vcbv	cwi †e†ki I ci wbeo/Avaniwbeo Pv†li c†ve I `†hM e`e`vcbv	†Kvm®cpiv†j vPbv	Pv weiwZ	†Kvm®gj`vqb I cök¶Y cieZ® gj`vqb	mgvcbx Abp̄vb I mb`c† weZiY			

Awa`tekb cwi Kí bv

w` b t 01

mgq t 08:00- 09:00

tgqv` Kvj t 60 ugubU

<p>wk`ti vbvgtwbeÜb I tKvm`Df`0rab</p> <p>Awfó `jt grm` Awa` Bti i KgRZ`e,` Ges Ab`vb`</p> <p>j`¶ t c`k`¶Yv_x`¶ i wbeÜb I Avb`pmbKfvte `K, wks I gv`i Pvl e`e`vcbv tKvm`Df`0rab Kiv hv`tZ c`k`¶K, c`k`¶Yv_x`¶ AvgwšZ AwZw_`f` i gv`S cwi vPwZ NtU tKvm`m`u`K`BwZevPK g`bvfvt`ei m`p`o nq </p> <p>Df`i`k` t G Awa`tekb t`k`¶I c`k`¶Yv_x`¶MY</p> <ul style="list-style-type: none"> • c`k`¶Yv_x`¶MY wbw` 0 di`tg w`b`f`R`f` i bvg I wKv`bv wj` tL tKv`tm`wbeÜb Ki`teb • c`k`¶K, c`k`¶Yv_x`¶Ges AvgwšZ AwZw_`f` i gv`S cwi vPwZ NU`te • AvgwšZ AwZw_MY tKvm`m`u`K`msw`¶B e`3`e` i vL`teb • c`k`¶Yv_x`¶ Dcw`Z Ab`vb`f` i gv`S tKvm`m`u`K`BwZevPK g`bvfvt`ei m`p`o nte 	
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wel qm`P	Av`tj vP` wel q	c`x`wZ	mgq
f`w`gKv			5 ugubU
	<ul style="list-style-type: none"> • `vMZg • i`f`v`Qv wewbgq • cwi Pq ce` • tKvm`m`u`K`Z c`0`ugK avi Yv 	e`3`Zv I Av`tj vPbv	
wel qe`v`			50 ugubU
	<ul style="list-style-type: none"> • c`k`¶Y Avb`pmbKfvte Df`0rab • wbw` 0 di`tg c`k`¶Yv_x`¶ i bvg wbeÜb • GKRB c`k`¶Yv_x`¶ GKRB AvgwšZ AwZw_KZ`R tKv`tm`P I ci` msw`¶B e`3`e` c`0`vb • c`0`vb AwZw_KZ`R tKvm`Df`0rab 	e`3`Zv I GKK KvR	
mvi -mst`¶c			5 ugubU
	<ul style="list-style-type: none"> • c`k`¶K KZ`R AvgwšZ AwZw_ I c`k`¶Yv_x`¶ i ab`ev` Ávcb • cieZx` Awa`tekb mweRfvte tKv`tm`P tgšuj K KvVvtgv Ges wKQy Avbj vswMK wel qw` wbtq Av`tj vPbv Kiv • cieZx`Kv`tm`P Rb` ci`vgk`c`0`vb 	e`3`e`	
c`k`¶Y mnvqK mvgMtt e`v`bvi, wbeÜb dig, c`k`¶Y mvgM0, BZ`w`			

As†Ki †Lj v

wb†Pi AsK, †j vi Rb` we†Kl wb†` Rbv n†j v th, 0+0 wPý Øviv we†qm, 0Ñ0 wPý Øviv fVM, 0×0 wPý Øviv thvM | 0=0 wPý Øviv
Y eS†bv n†qtQ|

mgq t 20 tm†KÙ

1. $7 + 4 =$

2. $4 - 2 =$

3. $6 \times 3 =$

4. $3 \div 3 =$

5. $6 \times 2 =$

6. $3 \div 2 =$

7. $4 + 2 =$

8. $6 - 2 =$

9. $4 \times 3 =$

10. $6 \div 3 =$

11. $1 \div 2 =$

12. $2 \times 3 =$

13. $5 + 2 =$

14. $4 \times 2 =$

15. $8 + 4 =$

cġZ'wK cpi vġj vPbv

GKK/\ j xq Abġxj b

G Abġxj bxi Dġ'k' ntġv ceġ ħbi Kvġġg cpi vġj vPbv Ges cġ Ē mvŪ'Kvj xb KvR Dc'vcġbi mġġwM mġó Kiv ħvġZ AskMŲYKvi xMY AwRZ AwfĀZvi wewbgq KiġZ cvġib|

K. cpi vġj vPbv




- cġg w`b e'ZxZ cġZ'w`b Awatekġbi 'i'ġZB j Uwi i cpi vġj vPbv Awatekb Dc'vcġbi Rb' GKRb cġZwba wbeġPb KiġZ nġe| wbeġPZ cġkġYv_ġAvġMi w`ġbi Dc'wcz me,ġjv Awatekb t_ġK_ i'ZcYġGKUw wġġYxq wġġġi L l ci 5 wġwU e³e' ivLġeb| e³e'i ġġ wġq nte wġqU Kx, tKb_ i'ZcYġGes Kxfvġe Zv fweġ'ġZ KvġR j vMġeb|
- GKBfvġe cġkġYK Avi GKRb cġkġYv_ġK j Uwi i ġva'ġġ wbeġPb Kiġeb whub MZ w`ġbi mg`-wġq,ġjv mKġj i AskMŲġYi ġva'ġġ 15 wġwU mgq aġi cpi vġj vPbv Kiġeb|
- Dcġiv³ `ġRb cġkġYv_xġ mweġ Dc'vcġbi l ci 10 wġwU mgġq cġġġ me cġkġYv_ġ l cġi cġkġYK fvġ l ġv` cġZfve t'ġeb|
- tKvb AskMŲYKvi xi MZ w`ġbi Avġj vPbvq tKvb wġġq RvbġZ ev eġġZ Amġeav ntġ Zv mġġkrab Kġi wbb|

L. mvŪ'Kvj xb KvġRi Dc'vcġb

- ceġ ħb cġ Ē mvŪ'Kvj xb Abġxj b mWVKfvġe tRġb wbb|
- Kxfvġe Dc'vcġb Kiġeb Zv wbaġġ Y Ki"b|
- tK Dc'vcġb Kiġeb Zv wbaġġ Y Ki"b|
- wbr`ġ mgġqġ ġġa' Dc'vcġb, Avġj vPbv l cġkġDEi ceġkl Ki"b|

ġW wġUvi

cġZ'w`ġbi Awatekb tkġl cġkġYv_ġMġYi ġġbrfve A_ġ' Zuiw cġZ w`ġbi Awatekbmn mġġwMKfvġe tKvmġmġúġKġZvġ' i mġġó i wġqU šġW wġUvġi iš ġva'ġġ Dc'vcġb Kiġeb| mġvqZv`vbKvi x AvUġccvi wġġU Qmei ġva'ġġ wZb aiġbi mġġó i wġq Dc'vcġb Kiġeb| cġkġYv_ġMY cġZ'ġK cġZ'w`b Awatekb tkġl wġK (v) wġġġi ġva'ġġ Zv cġY Kiġeb|

w`b			
1g			
2q			
3q			
4_©			
5g			

^K, wks I gv, i gvQ Pvl e`e`vcbv

c0K-gj`vqb c0k0I

me c0k0e gvb mgvb | mWVK DEti i cvtk0UKwPy (v) w`b

cY0vb - 100

mgq - 25 wgvbU

bvg t c`ex t

Kg0j t

01. ejsj vt`k SIS gv0Qi c0RwZ msL`v KZwU?

- K) 145 wU
- L) 150 wU
- M) 143 wU
- N) Dcti i tKvbwUB bq|

02. wbt0b wj wLZ tKvbwU wRI j gvQ ?

- K) tZj wvcqv
- L) cvsMvm
- M) gv, i
- N) Dcti i tKvbwUB bq|

03. tKvb gv0tK Climbing Perch etj ?

- K) gv, i
- L) `K
- M) Uwk
- N) Dcti i tKvbwUB bq|

04. tKvb gv0 Avqi tbi cwi gvY metPtq tewk?

- K) tZj wvcqv
- L) cvsMvm
- M) gv, i
- N) wks|

05. wbtP wj wLZ tKvbwU K`vU wdk ?

- K) wks
- L) AvBo
- M) gv, i
- N) Dcti i me, tj vB|

06. tKvb ai tbi gwU gvQ Pvl i Rb` DcthvMx?

- K) t`vqwk
- L) j vj gwU
- M) GtUj
- N) tetj t`vqwk|

07. gvQ Pvl i metPtq AbKj wGBP gv1 v tKvbwU?

- K) 3.5-8.5
- L) 7.5-8.5
- M) 4.0-10.0
- N) 7.0-9.0|

08. tKvbwU gwU i c0vb Dcv`vb bq ?

- K) LwbR c`v_0

- L) Re c`v_°
M) cwb
N) bvBtUtRb|
09. tKvb Gj vKvi gwUtZ c0KuZK Drcv`bkxj Zv Kg?
K) htKvi
L) bvtUvi
M) gapcj Mo
N) Kugj vt
10. gvQ Pvl i metPtq AbKj bvBtUtRtbi gvIv KZ?
K) 15-20mg.M0./100 M0g
L) 8-10mg.M0./100 M0g
M) 20-25mg.M0./100 M0g
N) Dcti i tKvbUJB bq|
11. mks, gv, i I`K gvQ Pvl m0uK Lv`" AwgtI i gvIv KZ nI qv fvj ?
K) 30-35%
L) 20-25%
M) 40-50%
N) 12-15%|
12. Lv` I Lv` DcKiY mKi jc`vfb msi qY Kiv DvPZ?
K) cwi`vi I chfB Avtj v evZvmh3`vfb
L) Av`ev vFRv`vfb bq
M) mivmwi mthP Avtj vtZ bq
N) Dcti i me,tj vB|
13. mks gvQ GKK Pvl gRj NbZ;KZ?
K) 200-250mU
L) 100-150mU
M) 400-500mU
N) 250-350mU|
14. AYRxe tKvb&ZvcgvI vq fvj RbWq?
K) 26-37°
L) 20-25°
M) 38-40°
N) Dcti i tKvbUJB bq|
15. tKvbU Rxe%avP1` msi qItYi Rb` c0qvRb?
K) mnbkxj gvI vq gvQ Avni Y
L) KvItU Rvtj i e'vcK e'envi
M) Acwi Kur Z grm` Pvl m0c0vi Y
N) Dcti i me,tj vB|
16. tKvb DcvqU gvQ Pvi tivta mnvqK?
K) Abt` i mvt_ c0ZthwMZvq Ask vbtq cKai vj R tbqv
L) mgvtRi mKtj i mvt_ DEg m0uK0eRvq bv ivLv
M) mvqWRK 0t0 Rvotq cov
N) Dcti i tKvbUJB bq|
17. tKvb KvRvU Ki tj evRvti gvQ i`vg tenk cvl qv hvq?
K) tQvU eo gvQ evQvB Kti evRvti bv cVvtj
L) evRvti cvVvtbvi AtbK AvtM t_tK gvQ ati ti tL
M) RxeS-gvQ evRvi RvZ Ki tj
N) evRvi` i bv tRtb evRvi RvZ Kiv|

18. wks gvQ wbtP wj wLZ tKvb MtYi AŠf?
K) Perciformes
L) Cypriniformes
M) Siluriformes
N) Clupeiformes
19. Walking Cat Fish tKvbwJ?
K) ^K
L) wks
M) gv, i
N) Uwk|
20. tKvb gvQi AwZwi 3 kjm hš;AvtQ?
K) ^K
L) wks
M) gv, i
N) Dcti i me, tj vB|
21. wfUwgb OGÓ Gi Afvte wK ti vM nq ?
K) tewi tewi
L) Mj MĒ
M) i vZKvbr
N) Dcti i tKvbwJB bq|
22. cwi entbi mgq tcvbr wK Kvi tY gvi v hvq?
K) Aw tRb ^f Zv
L) G vtgvbqv i gvĀ v ewx
M) ZvcgvĀ v ewx
N) Dcti i me, tj vB|
23. cKti i cwbi ZvcgvĀ v 1°tm. tefo tMtj gvQi Lv` MbtY wK cwi eZĒ nq?
K) Ktg hvq
L) w, Y tefo hvq
M) cwi eZĒ nh br
N) w, Y Ktg hvq|
24. ti Ytcvbr Qvovi AvtM cKti num tcvKv gvi vi Rb` mrvavi YZt tKvb wKUbvkK cĒqvM Kiv nq?
K) wvWwWJ
L) WvBGj wVb
M) wVcUwvi .
N) Dcti i tKvbwJB bq|
25. cKti GKevi wbeo fvte gvQ PvĀ i ci cptivq gvQ PvĀ i i`i AvtM wK Kiv DvPZ?
K) cpivq ^K/gv, i/wks PvĀ Kiv DvPZ
L) tZj wicqv PvĀ Kiv DvPZ bq
M) KvĀj v Kv` v DvWtq mewR tĀtZ t`qv
N) Dcti i tKvbUvB bv|

`j MVb

`j MVtbi chiq

th tKvb KvRi Df'ik" `j MVb KvTj `tj i m`m'f' i gta" wBR wBR `wofwz, wfbawfbagtbvive l Atb'i gZvgZ c0ZnZ Kivi B'Qv we`"gvb _vtK, dtj mgfSvZvcY© j MVtb RvUj Zvi mwo nq|

`j MVtbi mgq mvavi YZt Pvi wU chiq cwij w'jZ nq t

1. c0'wZKvj (Forming)

- ♦ c0'Z'fK wfbawfbagtbvive wbtq Ae'vb Kti |
- ♦ c0'Z'fKB wBR wBR `wofwz c0'Zw0Z Kivi c0'P0v Pvj vq|
- ♦ AskM0Y AZ"š-mxgve× _vtK|
- ♦ c0'Z'KB i aywBR wBR KvR wbtq wPŠ+ fvebv Kti |
- ♦ `j fwe l' r wmxvš-ev'evqfbi wfwE wntmte wbgvej x MVtbi wPŠ+ Kti |

2. c0'Zev` Kvj (Storming)

- ♦ ZKweZK©cKU nq l GKZv _vtKbv|
- ♦ c0'wgKfvte c0'Z wbgvej x, tbZZj l AvPi Ywewa aYsm nq|
- ♦ m`m'iv GfK Atb'i c0'Z kµ fvevcbnq, tKvb Avtj vP" welfq wbtRi wmxvš-`pZv c0'k0 Kti |
- ♦ 00 evotZ _vtK, `j MVtbi wbgvej x gvbv nq bv, hwp3 c0'vb evotZ evotZ DEB evK" wewbgq i i" nq|
- ♦ hw` G Ae'vtK mdj fvte c0'ZnZ Kiv hvq, Zv ntj `j MVtbi ev`e m0SZ Df'ik", wbgq l i wZbwxZ wbaŋY Kiv m0e nq|

3. i wZbwxZKvj (Norming)

- ♦ Ab'fK c0'ZnZ Kivi B'Qv `gb nq, `j fK m'p l HK"ex nl qvi j 'j" i wZbwxZ c0'Z0v jvf Kti |
- ♦ `j xq m`m'iv `j fK Avšw K fvte M0Y Kti l GfK Atb'i wPŠ+ev AvPi YfK `fweK fvte M0Y Kti |
- ♦ `j fK `vqxifc t' l qvi B'Qv tcvl Y Kti |
- ♦ `j c0'Veš-nq|

4. ev'evqbKvj (Performing)

- ♦ `j cYZvjvf Kti l c0'wKZ dj t`q|
- ♦ i ayDctiv3 wZbw `t cvi nl qvi ci G `fi Avmv m0e nq|
- ♦ G `fi m`m'iv GfK Atb'i c0'Z Zvt' i KvRi m0cK©stZ cvti, ZvB mnRfvte wBR wBR `wqZj cvj b Ki fZ cvti |
- ♦ `tj wBR wBR fvgKv l `wqZj bgbxq ntq Avtm, dtj `j xq kw3 KvR i fcvšw Z nq|
- ♦ bZb bZb wPŠ+ fvebv l mgvavb cKvk cvq|

GKwU fvj `tj i m`m'f' i bqU fvgKv

mgfSvZvcY©fvj `tj mvavi YZt wbt0ev3 bqU Pwi f'f i m0vb cvl qv hvq t

1. mgšqKvix (The Co-ordinator)

wZwb `j tbZv wntmte KvR Kti b| AvZewekjmx, mvej xj fvte K_y ej fZ cvti b, fvj tk0Zv, wmxvš-M0Y Zji wšZ Ki fZ cvti b, `j xq m`m'f' i KvR Ae'vb ivL fZ mgfvte mrvh" Ki fZ cvti b|

mvavi Y `pZv t wKQfjv wbtRi ct'j m'p0av M0YKvix|

2. epxi Sj K c0'vbKvix (The Spark)

wZwb `tj i GKRb Acwi nvh`m` m` whwb weifb`bZb bZb avi Yv ` b, mRbKxj , tMvovxg` I Kí bv kw³ai |
mvavi Y `p`Zv t avi Yv c`qvtM epx`i NvUwZ, Aev`e avi Yv |

3. ev`evqbKvi x (The Implementor)

wZwb `tj i KvRi enb I AvbM`Z`i mv`_ h`³ i gva`tg avi Yv`K ev`evqb mrvh` Kti b |
mvavi Y `p`Zv t `i agv` hLbB wRÁmv Kiv nq tKb KvRwU Ki te ZLbB `i ayZv e`vL`v Kti | Kí bv Ki tZ A`lg |

4. `wó wbe`Kvi x (The Fixer)

wZwb `tj i ewng`x `wó c`vbKvi x, eÜfvevcb`A`b`i mv`_ thvMv`hvM i`vq `v, bZb m`hvM m`wóKvi x |
mvavi Y `p`Zv t w`bqg k`LLj v weewR`Z, A` ` k`m`cb`

5. w`kIÁ (The Specialist)

`tj i gj`evb Ávb I `vZv c`vb w`tq g` e`w³, GKK w`S`Kvi x, w`R t`K KvR GwM`q th`Z cvti, w`R`K
KvR DrmM`Kvi x Ges tKvb tKvb mgq cui Kí bv/ev`evqb e`vZ n`j ZLb bZb cui Kí bv/`K`Kj c`vbKvi x |
mvavi Y `p`Zv t w`c` i mgq mrvqZv `v`b A`lg |

6. ifc`vbKvi x (The Shaper)

wZwb mvavi YZt `tj i `wbe`PZ tbZv, MwZKj , wbsmskqx, ewng`x, h`³ev`x, c`fve m`wóKvi x, evav KwU`q DVvi
c`eYZv |
mvavi Y `p`Zv t A`b`i AcO` b`q, `p`j i c`Z ej c`qvmKvi x, w`ivax` i t`vctq tZv`b |

7. cwi ex`Y-gj`vqbKvi x (The Monitor - Evaluator)

wZwb `tj i cv`_i ev w`f`E, tK`Kj w`b`f`YKvi x AvZ`wbq`S`Z, w`k`YKvi x, A`sg`x `wó c`vbKvi x, c`bi Z`K `vZvi
mv`_ m`wK f`ve w`k`Y Ki tZ cvti b |
mvavi Y `p`Zv t Av`eM ewR`Z axi -w`i, Kí bv Ki tZ A`lg |

8. `j xq Kgr` (The Team Worker)

wZwb `tj i Dc`óv I w`iva w`gysmvKvi x, m`v`w`RK, Dcj w`Kvi x, cui w`vZi mv`_ Lvc Lvl qvtZ cvti b | mgvavb
m`c`K`m`PZb, `j xq m`c`wZ i`vKvi x, `tj i `hvM`Kv`j AZ`Š-c`qvr`bxq e`w³ |
mvavi Y `p`Zv t w`c`w`Kvi K bb |

9. mgv`B`Kvi x (The Completer/Finisher)

`tj i mgq m`w` w`b`f`Y I KvRi w`w`i Z e`vL`vq `tj i KZ`Kvi x, c`avb f`j m`g` I ev` cov w`lq w`v`yZKvi x |
mvavi Y `p`Zv t GwM`q hvL qvi e`vcv`i w`vj BZv, Kg `i`Zc`Y`ev tQvU w`lq `w`Šv |

wdεPvU^cawi Kí bv

<p>^K , wks I gv_sti i Pvl m^εεbv I_si"Zi</p>	<p>Pvl m^εεbv t</p> <ul style="list-style-type: none"> • t`tk AmsL" MōgxY cKai i tqtQ th_stj vtZ `K, wks I gv_si gvQ Pvl Kiv m^εε • ^K Gi Drcv`bkxj Zv cōq- 6 tgvUK Ub/ tn. Gi teuk • wks I gv_si Pvl i Drcv`bkxj Zv cōq 5-6 tgvUK Ub/ tn. • Pvl vev` w`b w`b evotQ • Avti v e`vck m^εcθvi Y m^εε 																												
<p>^K, wks I gv_si Pvl i m^εεav t</p> <ul style="list-style-type: none"> • tWvev, tPšev" Pv ev LuPvtZ Pvl Kiv hvq • eisj v`k i gwU, AvenvI qvl Rj evqyGt` i Pvl DcθhvMx • GKK I w^gk^aPvtI DcθhvMx • c^og^ovb teuk, tL^tZ m^y v`y • AwaK Nb^tZi Pvl m^εε • cōZKj cwi t^tkI evP^tZ cvti • t` mg^tq evRvi RvZ Kiv hvq 	<p>A_εbwZK_si"Zit</p> <ul style="list-style-type: none"> • Aí mg^tq AwaK g^ov^odv m^εε • t`k-wet`tk evRvi Pwn`v i tqtQ • ewYwR`K fite Pvl m^εεbv e`vck • Avav-wb^oeo I w^oeo c^wZ^tZ Pvl AwaK Drcv`b I e`vck Kg^os^ov^obi m^oθhvM i tqtQ • `wi`^a wet^gvP^tb D^tj L^oθhvM" Ae`vb ivL^tQ <p>c^og^oMZ_si"Zit</p> <p>G^t i c^og^ovb Ab`vb" gv^tQi Zj bvq teuk</p> <ul style="list-style-type: none"> • c^og^ovb w^og^oεfc (cōZ 100 Mōtg) <table border="1" data-bbox="767 1003 1380 1171"> <thead> <tr> <th>c^oRwZ</th> <th>t^ocōUb</th> <th>t^om^o</th> <th>Avqi b</th> <th>K^ovj w^oq^og</th> <th>dmd i vm</th> <th>wfUwgb</th> </tr> </thead> <tbody> <tr> <td>^K</td> <td>14.8</td> <td>8.8</td> <td>1.35</td> <td>0.42</td> <td>0.39</td> <td>32.0</td> </tr> <tr> <td>wks</td> <td>22.8</td> <td>0.60</td> <td>0.8</td> <td>0.67</td> <td>0.65</td> <td></td> </tr> <tr> <td>gv_si</td> <td>32.0</td> <td>2.0</td> <td>0.70</td> <td>0.172</td> <td>0.30</td> <td></td> </tr> </tbody> </table>	c ^o RwZ	t ^o cōUb	t ^o m ^o	Avqi b	K ^o vj w ^o q ^o g	dmd i vm	wfUwgb	^K	14.8	8.8	1.35	0.42	0.39	32.0	wks	22.8	0.60	0.8	0.67	0.65		gv _s i	32.0	2.0	0.70	0.172	0.30	
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ĀK, ũks | gv, i gvĀQi Pvl mæŋebv | ũ, i"Z;

Pvl mæŋebv

evsj vĀ k ũgvv cŵbi grm Pvl i tĀĪ ũntmte cŵ_exi cĀg mwii tĀ k, tj vi gĀ AbZg | mæcĀZKKvtj evsj vĀ tki grm LvtZ cĕŋxi nvi Pxb | fvi tZi mĀ_ Zj bxq | wekvj Rj i ũktZ mgx GĀ tk gvQPvl i AdĀš-mæŋebv we'gvb | mĀ Ā AZĀZ cĀKŵZKfvteB tĀ kxq ũewfbæcRwZi cĀi gvQ cvl qv thZ | ZLb tĀ kxq gvQ Pvl Kivi ũelĀq fvevi cĀqvRb ũQj bv | ũKŠ' KĀqK Ā kĀK tĀ kxq cRwZi tQvU gvĀQi AvevmĀj mĀKvPb, RbmsL'vi AwaK', tĀP AcwiŋZ cŵbi e'envi, Kŵ KvĀR KŵUvktĀki hĀ_Q e'envi, Awzi³ grm AvniY Ges cwi tĀtki fvi mvg'nxbZvi Kvi tY gvĀQi cĀKŵZK esk ũe'vi e'vNZ nĀ"Q |

evsj vĀ tki grm mæŋ cRwZMZ eŵPĀĪ i ũ K tĀK Abb' tĀtki Avf'š+xY gy³ Rj vktq 260 cRwZi tĀ ycvbi gvQ ũe'gvb hvi gĀ 150 cRwZ nĀ"Q tQvU gvQ | Gme tQvU gvĀQi gĀ 50ŵ cRwZ mPivPi Avf'š+xY Rj vktq cvl qv hvq; hvi DĀj EĀhVM' Ask ũtgB msKŪvctbĀe ũ tĀK GŵMĀq hvĀ"Q | A_P Gme tĀ kxq cRwZi gvĀQi cĀy_Y I evRvi gj' AĀbK teŵ | D³ cRwZ, tj vi gĀ ĀK, ũks | gv, i gvQ LpB ũ, i"ZcYĀ AvgvĀ i ũcĀ Gme gvQ AvR GĀ k tĀK nŵi tĀq thĀZ eĀmĀQ | Ace³Ā, cĀy_Y I D'P evRvi gj' ũetePbvq Gme gvQĀK eŵPĀZ nte Ges GĀ i Pvl mæcĀŵi tYi cĀqvRbxq DĀ ũM MĀY Ki tZ nte |

evsj vĀ tki MĀg Gj vKvq AmsL' cĀKi-ŵ ũN i tĀqQ | Gme cĀKi-ŵ ũNi AwaKvskB ĀK, ũks | gv, i gvQ Pvl i DchĀ³ | Gme cĀKi Dbz mbvZb cŵiZ ũKsev Avav-ũbŵeo cŵiZĀZ gvQ Pvl Kiv hvq | Gme cĀKi Dbz cĀŋ³ e'envi i gĀ tĀg Drcv'bkj Zv eŋxi cvkvcŵk ũeAvbmæZfvte ĀK, ũks | gv, i Pvl Kiv mæ | MĀelYvq tĀ Lv tĀMĀ th, Avav-ũbŵeo cŵiZĀZ eŵi'Kfvte ĀK gvĀQi Drcv'bkj Zv tŵi cĀZ 6-7 tĀŵK Ub Ges tĀ kx ũks | gv, i Drcv'bkj Zv 5-6 tĀŵK Ub |

ĀK, ũks | gv, i gvQ AvgvĀ i tĀtk RbŵcĀ ũRĪ j gvQ ũntmte cŵiŵPZ | AvevmĀj mĀKvPb, cwi tĀkMZ ũechĀ, cĀKŵZK Rj vktq mĀ fivU Ges Lvj ũej cŵb i' b' nĀ qvq Gme gvQ ĀZ nŵi tĀq hvĀ"Q | AZĀZ Gme tĀ kxq cRwZi gvĀQi Pvl mæcĀŵi Y I msi ŋĀYi ũelĀq tĀKDB tZgb ũ, i"Z; tĀ qŵ | Pvl cŵiZĀZ Gme gvQ AšfĀ³ KĀi Drcv' b evotbv GLb mĀtĀi vĀx | D'P evRvi gj', e'vcK Pwŵ v I AZ'š-j vRbK nĀ qv mĀZ; tĀcvbi AcĀZj Zvi Kvi tY Gme gvĀQi Pvl Avkvbjfc cĀŵi jvf Ki tĀQ bv | Z'ŵi evsj vĀ tki ũewfbæGj vKvq Gme gvQ Pvl Pwŵ MY tĀk Drmŵx I AvMĀn nĀq DĀVĀQb | cĀŋ³MZ I ũewfbæKj v-ĀKškj mæŋtĀK³ZwĒĀ I e'envi K cĀkĕŋYmn civgk³cĀvb Ki tZ cvitj GmKj gvQPvl AvĀiv e'vcKfvte mæcĀŵi Y jvf Ki tĀ |

DĀj E' th, RbŵcĀ ĀK gvĀQi AvĀi KŵU bZb RvZ tĀtk GĀmĀQ hv ŀ_vB ĀKĀ bvtg cŵiŵPZ | GLb AvgvĀ i tĀtk ũ_vB ĀK mŵgZ chĀq Pvl Kiv nĀ"Q | ũ_vBj vĒ tĀK Avg' ũbKZ G gvĀQi KŵĀg cĀRbb I tĀcvb Drcv' b evsj vĀ tĀk mdj fvte Kiv nĀ"Q | tĀ kx ĀK gvQ AĀcĀŋ v ũ_vB ĀK-Gi Mo Drcv' b teŵ I AwaK j vRbK nĀ qv Pwŵ iv G gvQ Pvl tek Drmŵn nĀ"Qb | Ab'ŵ tĀK ũks | gv, i tĀĀĪ LpB mŵgZ AvKvĀi temi Kŵi chĀq KŵĀg cĀRbb, tĀcvb Drcv' b I Pvl vev' Kiv nĀ"Q hv DrmŵnRbK | ũKŠ' Gme gvĀQi KŵĀg cĀRbb, tĀcvb Drcv' b I Pvl e'e'vcbvi I ci grm Pwŵ tĀ i DcĀŵMx tĀKv cĀK bv ũ_vKvq Pwŵ iv ĀK, ũks | gv, i gvĀQi Pvl e'e'vcbvq ũewfbæmĀŵi mæŋLb nĀ"Q |

ĀK, ũks | gv, i gvQ Pvl i mĀeav

- th tĀKv b ai tbi Rj vktq GgbŵK tPšev'Pvq ev LuPĀZĪ Gme gvĀQi Pvl Kiv hvq |
- evsj vĀ tki gwĀ, Avenl qv I Rj evqy Gme gvQ Pvl i AZ'š-DcĀŵMx |
- tgšmĀg cĀKi, eŵl R cĀKi, AMfxi Rj vktq I Gme gvQ Pvl Kiv hvq |
- tĀ Mfxi Zv mæŋbæcĀKi AwaK NbĀZ; mĀĀRB Pvl Kiv hvq |
- ũeĀc cwi tĀtki cŵbĀZ Giv tĀPQĀ emevm Ki tZ cĀi | Aw ũRĀbi Afve, cŵb tĀY, cŵb AZ'ŵaK Mig ntj I Giv eŵPĀZ cĀi |
- ĀK gvQ GKK Pvl Ges ũks | gv, i ũgkPvl Pvl DcĀŵMx |
- ĀK gvQ 4 gvĀm Ges ũks | gv, i gvQ 7-8 gvĀm Lvevi DcĀŵMx I evRvi RvZ Kiv hvq |
- ĀK, ũks | gv, i gvQ eŵŵR'Kfvte Pvl KĀi AwaK j vfev b nĀ qv hvq |
- Gme gvĀQi Pwŵ v I evRvi gj' AĀbK teŵ |

ĀK, ũks | gv, i gvQ Pvl i ũ, i"Z;

- `K, uks I gv_s i gvtQi cjo_s Y AfbK teuk Ges tLtz LpB my`v`y |
- Amy`I ti vM gy³ i ci `v`i DbwZi Rb` ti vMxi c`_s wntmte Gme gvQ mgv`Z |
- Af`v`b AwaK NbtZj Gme gvQ Pvl Kiv hvq weavq `f mgtq AwaK gpvdv AR⁸ m^{ae} |
- AwZwi³ kphb A½_v Kvq Gme gvQ evZvm t`fK Aw` fRb wbtq tetP_v Ktz cvti ; dtj RxeS-Ae`vq evRvi RvZ Kiv hvq |
- Ab`vb` gvtQi Zj bvq Pwin`v I evRvi gj` AfbK teuk |
- Gme gvQ Kg ti vM evj vB nq I AwaK mnbkxj Zv m^{au} b^o |
- t`kxq I AvSR⁸ ZK evRvti Gme gvtQi e`vcK Pwin`v itqtQ |
- Gme gvtQi ewYwR`Kfvte e`vcK Pvl m^{ae} bev itqtQ |
- Avav-wbweo I wbeo c_x wZtz Pvl t`f¹ AwaK Drcv`b Ges e`vcK Kg⁸ s`v`bi mthvM itqtQ |
- Gme gvQ Pvl Kti `wii`^a wetgvPb I Kg⁸ s`v`bi mthvM mjo Kiv hvq |

cjoMZ_s i`Zj

cWYR Awgtli gta` grm"-AwglB DEg | G Awgl mnRcvP` | gvtQi nvo I KuLv big nlqvq mnfRB nRg ntq kixi MVtb I i`fYvte`fY mnvqZv Kti | eZgvtb eisj vt`ki RbmsL`vi GKw Dtz LthvM` Ask tcWub I cjo mgm`vq fM¹Q | weifbæmgy`fYq t`Lv tM¹Q th, wFuwgb OG⁰ Gi Afvte cW eQi 30 nvrvti i AwaK uki ivZKvbv ti vM Av^us-nq | MgxY gvb¹ i kZKiv 57 fM c⁰qvRbxq wFuwgb OG⁰ Gi Afvte, 89 fM Avqi tbi Afvte, 80 fM K`vj wmqvtgi Afvte Ges 53 fM i³ i`b`Zvq fM¹Q | weifbæZ`_s m¹ Rvbv hvq th, gvbet`_n c⁰qvRbxq cjo Pwin`v mⁿ wFuwgb Ges LubR c`vt`P Afve c¹Y tQvU gvtQi_s i`Zj Acwi mxg | t`kxq tQvU cRwZi gvQ wetkl Kti gj v, tXj v, `K, uks I gv_s i gvQ tPvtLi Rb` LpB DcKvix Ges i³ `f Zv ti vta mnvqZv Kti |

cjo_{gvb} wetepbvq `K, uks I gv_s i gvtQi cjo_s Y eo gvtQi Zj bvq AfbK teuk | Gme gvtQ tcWub, wFuwgb, K`vj wmqvg I Ab`vb` gvBt_μv-wbDwU¹qU c⁰ cwi gvY itqtQ | cjo_s Y wetk¹Y Kij t`Lv hvq th, cW 100 Mlg f`fYthvM` uks gvtQ tcWub- 22.80 Mlg, tme- 0.60 Mlg, Avqib- 0.80 Mlg, K`vj wmqvg- 0.67 Mlg Ges 0.65 Mlg dmdivm itqtQ | gv_s i gvtQi t`f¹ tcWub- 32 Mlg, tme- 2.00 Mlg, tj vnv- 0.70 Mlg, K`vj wmqvg- 0.172 Mlg Ges dmdivm- 0.30 Mlg itqtQ | `K gvtQ AwaK cwi gvtY wFuwgb G, LubR c`v`^o thgb- AvqiY I Kcvi itqtQ | hv i³ wntgvMweb `Zwi tZ AZ`vek`K | G Qvovl mnfR c⁰ bthvM` Pw^o Ges AfbK G`v^o gvBt_μv GmW we`^o gvb | cW 100 Mlg f`fYthvM` `K gvtQ tcWub- 14.80 Mlg, tme-8.80Mlg, AvqiY-1.35 Mlg, K`vj wmqvg- 0.42 Mlg, dmdivm - 0.39 Mlg Ges wFuwgb itqtQ- 32.00 Mlg |

`K, uks I gv_s i gvtQi mvt`_s KwZcq Ab`vb` eo gvtQi cjo_{gv}tbi Zj bvgj K wP¹
(cW 100 Mlg f`fYthvM` Astk)

cRwZ	tcWub (Mlg)	tme (Mlg)	Avqib (Mlg)	K`vj wmqvg (Mlg)	dmdivm (Mlg)	wFuwgb (gvBt _μ v Mlg)
`K	14.8	8.8	1.35	0.42	0.39	32.0
uks	23.0	0.60	0.80	0.67	0.65	-
gv _s i	32.0	2.0	0.70	0.172	0.30	-
i`B	16.6	1.4	0.0009	0.68	0.15	-
g ¹ Mj	19.5	0.80	0.90	0.35	0.28	-
wmj fvi Kv ^e	16.3	1.10	0.011	0.268	0.382	17.0
Bij k	21.8	19.4	0.0021	0.18	0.28	-
tevqvj	15.4	2.7	0.62	0.16	0.49	-
AvBo	15.1	1.3	0.36	0.38	0.18	-

Awaŕekb cwi Kí bv

w`b t 01

mgq t 11.15-12.15

tgqv` Kvj t 60 ŕgvbU

wkŕıvbg	t ıK, ŕks ı gv, ı gvŕQi Rxe`erPŕı ı eZŕvb tĉŕıvcU
Afxó`j	t grm` Awa`Bŕı ı KgŕZıe,` Ges Abıv`
jŕı	t Rxe`erPŕı ıK, ŕks ı gv, ı gvŕQi eZŕvb Ae`ı, cŕPhŕZı nŕŕmi KviY ı DŕEıv b tKŕkj mŕúŕK cĕkŕŕıYv_ŕı ı aviYv cŕıv
Dŕıık`	t G Awaŕekb tŕŕı cĕkŕŕıYv_ŕıY- <ul style="list-style-type: none"> • Rxe`erPŕı ıK, ŕks ı gv, ı gvŕQi eZŕvb Ae`ı mŕúŕK ej ŕZ cvi ŕeb • ıK, ŕks ı gv, ı gvŕQi cŕPhŕZı nŕŕmi KviY mŕúŕK ej ŕZ cvi ŕeb • ıK, ŕks ı gv, ı gvŕQi cŕPhŕZı nŕŕmi DŕEıv ŕıYı Dcvq mŕúŕKŕej ŕZ cvi ŕeb

wel qmŕP	Avŕj vP` wel q	cĕkŕŕY tKŕkj	mgq
fıgKv			5 ŕgvbU
	<ul style="list-style-type: none"> • ıMzg • eZŕvb Ávb hvPvB • eZŕvb Awaŕekŕbi mŕŕ_ mŕŕhvM ıvcb • Awaŕekŕbi Dŕıık` e`ıL`ı • DŕııKıY 	e ³ Zı ı cĕkŕŕı	
wel qe`ı			45 ŕgvbU
	<ul style="list-style-type: none"> • Rxe`erPŕı ıK, ŕks ı gv, ı gvŕQi eZŕvb Ae`ı Rıvb • ıK, ŕks ı gv, ı gvŕQi cŕPhŕZı nŕŕmi KviY • ıK, ŕks ı gv, ı gvŕQi cŕPhŕZı eııŕŕZ KıYxq c`ŕıc 	e ³ Zı, cĕkŕŕı, gv ³ ıPŕŕı So, `j xq KıR Ges ıdePıU ^ŕ	
mvi -mŕŕıc			10 ŕgvbU
	<ul style="list-style-type: none"> • gj wel qmŕŕı cŕıvŕj vPıv • Dŕıık` hvPvB • nıvEAvDU ıeZıY • cıeıZ`Awaŕekŕbi mŕŕ_ mŕŕhvM • ab`er` Ávcb 	cĕkŕŕı	
cĕkŕŕY mŕıvqK mıgMŕı teWŕgvKŕı, ıbDRııcŕı, ıdePıU ^ŕ , cĕkZ e`ı, nıvEAvDU BZ`ıı			

wdcPvU`cwi Kí bv

<p>^K, wks I gv, i gvQi cPhZv nvtmi Kvi Y I DtEvi tYi Dcvq</p>	<p>cPhZv nvtmi Kvi Ymgat</p> <ul style="list-style-type: none"> • Avevm` t j i mstKvPb I AeTq • AviaK Avni Y • Kvti>U Rvtj i e`vcK e`envi • cRbb I wePi Y tTt Ktg hvl qv • b`-b` xtZ cij Rgv • cwb/cwi tek ` t Y • TtZti vM • weI cTqvM gvQ vbab
<p>DtEvi tYi Rb` tKSkj MZ c` tTcmgn</p> <ul style="list-style-type: none"> • Pvl cxwZtZ ^K, wks I gv, ti i `Z; Abaveb, cTKwZK cRbb I Lv` MhY ` fve • cRbb I Lv` i mpeavt` cKti wqvsZ gvTq Rj R DvM ivLvi e`e`v • grm` msi TTY AvBb ev` evqtB KtWi Zv Ae j ab • Rj vKq/ cKi m`uY qm tP gvQ Avni Y eU Kiv • mgvRwfvEK e`e`vcbvi gra`tg msi TTYi e`e`v 	<ul style="list-style-type: none"> • mi Kwi I temi Kwi chTq KwTg cRbb, tcvbv Drcv` vb I Pvl m`cDviti tYi e`e`v Kiv • cU kBx cKi ` vcb • PvtI i cKti avb tTt ev tWvev -byj v t` tK Gme gvQi cTeti mthvM ` vb • ivTtm I AewAZ gvQ ` ixKi tY weI cTqvM cxwZ vbi` rmmwZ Kiv • Avevm` t j i cpi` xvti i gra`tg gP Rj vktq Gt` i wePi tYi cwi wa evotZ nte • Afqvktg ` vcb

ĀK, ũks l gv, i gvġQi cĀPh^QZv nġtmi KviY l DġEviġYi Dcvq

evsjġġ k ġepĲġgq Rj R cwiġek l RxeġepĲġġ mgx | myġ ĀZxZ t_ġKB Gġġki cĀKĲZK Rj vġġq Lvc tLġq ũġĲ AvġQ eŭ cĀRwZi grmĲj | Avi ZvB AvengvbKvj t_ġKB Gġġki b`-b`x, Lvj -vej, cĲi -w ġN Ges cvebfġġZ t` kxq cĀRwZi AmsLġ gvġQi mvġ_ ĀK, ũks l gv, i gvQ cĀKĲZKfvġeB cĲi cwi gvġY cvlqv thZ | ũKSġ Kvġġi weeZĲb cwiġekMZ KviġY, Avevmġj mġġKvPb, evowZ RbmsLġvi Rbġ AwaK AvniY, Acwi Kwi Z eva ũbgĲY, Rj vġġq fi vU, Rj vġġq mġŭYġmġP gvQ AvniY, gvġQi ĲZġivM, ĲĲZKi Rvj (Kvġiŭ Rvj) l Abġvbġ mi Āvgwġ Ővi v gvQ AvniY Ges mġevewi Kwl RġġZ KxUbvġġKi hġ_ "Q e'envġi dġġ t` kxq cĀRwZi Abġvbġ gvġQi mvġ_ ĀK, ũks l gv, i gvQ AvR cĀq vej ũBi w ġĲ GwMġġ hġ_ "Q | G ġġġZĲ Avevmġġi AeĲĲġiva l RxeġepĲġġ msi ĲġYi cĀqRbxq c`ġĲc MġY KiġZ bv cwiġġ Abġvbġ t` kxq cĀRwZi gvġQi mvġ_ Gme gvQ l GKmgq nwiġġġ thġZ cvġ |

ĀK, ũks l gv, i gvQ Gġġġ LpB Rbġġġ l myġ ygvQ ũġmġe cwiġPZ | ĀZxZ cĀKĲZK Rj vġġq weġġl Kġi nvl i -evl o, vej -ŭSj l tWvev-bij vq ĀK, ũks l gv, i gvġQi cĀPh^Zv ũQj ĀġĲK teġġ | ũKSġ Kvġġi cwiġġgvq cĀKĲZK l gblġmġ bvbwea KviġY Gme gvġQi cĀPh^Zv w b w b Kġġ hġ_ "Q | BġZvcġeĲGme gvQ msi ĲĲY, esk weġġ l Pvl mġcġġviġY tKvb Dġ_ "M tġqv nqġb Ges G e'vcvġi tKvb ũPŠv fvebv l Kiv nqġb | Abġw ġĲ i "BRvZxq gvġQi ũKQz cĀRwZ l weġġ kx ũKQy gvQġKB Pġli Avl Zvq Avbv nġġQ | dġġ GKwġĲ Gme Pġli Avl ZvfĲ bv Kiv, Avevi Abġw ġĲ cĀKĲZK Rj vġġq ġġġZ Gme gvQ msi ĲĲY l mġcġġviġYi Dġ_ "M bv ũKvq ġġġġġ G gvQ ġġv mskUvcġġe w ġĲ GwMġġ hġ_ "Q | Gme gvġQi DĲP evRviġġ, cĲĲY Ges ġġ i K_v ũPŠv fvebv Kġi Gme gvQ Pvl mġcġġviġY mġPZb gġġġ i ġġ AvKġ nġġQ weavq AwZmġcĲ e'w³MZ chĲġġ temi Kwi ũKQz Dġ_ "v³v mġġZ chĲġġ tcvb Drcv`b l Pġli Dġ_ "M MġY KġiġQ |

ĀK, ũks l gv, i gvġQi cĀPh^QZv nġtmi KviYmgġ

cĀKĲZK, cwiġekMZ l gblġmġ bvbwea KviġY ġĲ Rj vġġq t` kxq cĀRwZi gvġQi cĀPh^QZv w b w b Kġġ hġ_ "Q | G Aeġvq thme KviY cĲ_ "Ĳ l cġivĲfvġe Gme gvġQi cĀPh^QZv nġtmi l ci cĲve weġġ KiġQ Zv ũġġ Avġġ vPbv Kiv nġġv |

Avevmġġi mġġKvPb l AeĲĲġ t` ġĲ weġġbġiġi Dbġġġ K KgRvĲ thgb- ebġv ũbgĲ_ Y eva ũbgĲY, Acwi Kwi Z Rbc_ l ġmP Lvj ũbgĲY, hĲ-ZĲ b`-b`x fi vU Kġi Mġ ũbgĲY BZġw bvbwea KviġY Avevmġġi mġġKvPġi dġġ Gme gvġQi cĀRbb weġġ nġ_ "Q Ges gvġQi Drcv`b l Kġġ hġ_ "Q | ZvŐvov cvebfġġ, Lvj -vej mn Abġvbġ ũPz ġġvKv gġŭ fi vU Kġi Kwl RġġZ i fcvġġ nġ_ "Q; dġġ gvġQi Avevmġġi AvqZb l Kġġ hġ_ "Q | AwaKSġ Gme gvġQi cĀKZ Avevmġġi Z_v cĀKĲZK Rj vġġġi BĲKwmġġġġ ġivZĲK cwi eZĲ mvab thgb- Rj R Dġ^{mc} aġsm nġġ hvl qv, Rj vġġq cĲivcġi i ũĲġġġġ dġġġ dġġ teġġ_ ũmn cĲġi i Zġġ ġĲ emewmKvix Abġvbġ Rġġei mslġv nwm cvl qvq Gme gvQ w b w b Kġġ hġ_ "Q |

RbmsLġv epġxi dġġ AwaK AvniYt RbmsLġvi gvĲwZwi³ epġxġZ ĲfweKfvġe ġĲ Rj vġġq ĀK, ũks l gv, i gvQmn Abġvbġ t` kxq gvQ AvniY cĲYZv epġx tġġġQ | dġġ GKwġĲ thgb Rj vġġġi ġRĲ nwm cvġ_ "Q; Abġw ġĲ bvbwea KviġY Gme gvQ AvkvbġĲc Drcv`b nġ_ "Q bv |

Kwl RġġZ KxUbvġġKi hġ_ "Q e'envġ eZġvġb Kwl KvġR weġġl Kġi DĲP dj bkġġ avb Drcv`ġb KxUbvġġKi e'vcK e'envġ nġ_ "Q | e'eŭZ KxUbvġġKi weġġġqvġi cĲve cvebfġġ l ġĲ Rj vġġq cotQ; dġġ ĀK, ũks l gv, i gvġQi wePiY l Avevmġġi ĀġbKvġġk webġ nġ_ "Q | GgbġK KxUbvġġKi weġġġqvq cĀRbb tĲĲmn tŐvU tŐvU tcvb, ũWg tcvb BZġw bġ nġ_ "Q |

cĀRbbġĲĲ Kġġ hvl qvġ cĀKĲZKfvġe cĀRbb ġġġġġ ĀK, ũks l gv, i gvQ ġġ Zt ũbR Avevmġġi AvbvġP-KvbvġP ũbgĲ⁴Z AvMvŐv l Dġ^{mc}, MġġQi Wġġ -cvjv, avbġĲZ, cvĲĲZ BZġw ġZ cĀRbb KvġĲġ mġŭbĲĲi | GgbġK ũbR Avevmġġi Gme mġġvM mġeav bv ũKġġ Zviv cĀRbb mġŭbĲĲi Rbġ AbĲ gvBĲMĲb Kġi | RbmsLġvi PĲc DĲP dj bkġġ weġġbĲmġ Drcv`ġbi w ġĲ bRi t` qvi dġġ Ges Abġvbġ bvbwea KviġY Gme gvġQi cĀRbbġĲĲ ġġġġġ Kġġ hġ_ "Q | dj kĲZġZ cĀKĲZKfvġe Gme gvġQi cĀRbb KvġĲġġi mġġvM w b w b mġġKwPZ nġġ cotQ |

b`-b`xġZ cġġ Rġvġ Lvj -vej l b`-b`xġZ e'vcKvġi cġġ Rġvi dġġ GKwġĲ thgb tmġġġ vi DrmgĲ eŭ nġġ hġ_ "Q, Abġw ġĲ nvl i -evl o l weġġi Mfxi Zv nwm tġġġ chĲġġġ tmġġġ avbġĲġZ i fcvġġ Z nġġQ | ZvŐvov `xNĲ b`-b`x Lbb bv Kivq Ges weġġbĲeġi KviġY i Kġbv ġġġġġ cĀq me tŐvU tŐvU b`x i ũĲġġ hġ_ "Q | dġġ weġġbĲeġ -b`xġZ cġb cĲvġ Kġġ hġ_ "Q Ges cġġ Rġvi cwiġġv w b w b epġx cvl qvq Abġvbġ t` kxq tŐvU gvQmn ĀK, ũks l gv, i gvġQi cĀRbb l wePiYĲĲĲ Kġġ hġ_ "Q |

cwiġek t`Ĳt ũĲĲ Kġ KviLvbi eR`c`v`Ĳ`-b`x l ġĲ Rj vġġq tġġ vi dġġ eR`c`v`Ĳ weġġġqvq ġĲ Rj vġġġ cwiġek bġ nġ_ "Q, GgbġK D³ weġġġqvq gvQ ġvi l hġ_ "Q |

gvġQi ĲZġivM t` kxq cĀRwZi cĀq me gvQ Kġġ hvl qvi AbĲZg KviY nġ_ "Q gvġQi ĲZġivM | Avġġġ i t` ġĲ 1988 mġġ cĀq G ġivġMi cĀqve t` Lv hvq | tm mgq t` ġĲi cĀq me aiġbi Rj vġġq ĲZġivM dġġ t` kxq cĀRwZi gvQ thgb- ĀK, gv, i, ũks, ũwK, ġġb, tġġ, cĲ, tŐsiv BZġw gvQ e'vcKvġi ġvi v hvq Ges cĀKĲZK ġRĲ ĀġbKvġġk nwm cvq |

wbePZ wKQy gvQ Pvl w el c0qvM Ab`vb` gvQ w bab t Kvc`I Ab`vb` wet` kx wKQy gvQ Pvl i t`fj t cK i c0wZi Ask wntmte Ab`vb` tQvU gvQ tgi tdj vi Kv iY t` kxq cRvZxi c0q me gvQB e`vcKfvte nwm tctqtQ| D t j L` th, beYB `k tKi Av tM M0gxY cK t i c0q c0Zw tZ Ab`vb` gvtQi mvt` `K, wks I gv` i gvQmn t` kxq cRwZi tQvU gvQ cvl qv thZ wKšcieZx fZ cK i c0 EwZi mgtq D³ gvQ, t j v tK AewAZ gvQ wntmte tgi tdj v nZ, dtj Gme gvQ wech fqi t`fj t m j i c0hvi x c0ve cw i j w fZ nq|

Kv i u Rv t j i e`vcK e`envit cveb fvgmn c0q me ai tbi Rj vktq w bwl x Kv i u Rv t j i e`vcK e`envt i dtj cRbb t gšm t g w bve P v i w V g l q v j v gvQ I t c v b v gvQ w b a b n t` Q |

`K, wks I gv` i gvtQi c0c`Zv epx i j t`fj` tKškj MZ c` t`fj c

Lv` , A_` c0p I `v` i `e w P I` i fvi Rb` KvcRvZxq gvtQi cvkvcw k `K, wks I gv` i gvQ Pvl i c0Z wetkl bRi w tZ nte| Gme t` w k gvQ msi f j t Y i `v` i `e w A v b i f w E K m a u` e` e` v c b v c w i K i b v M0Y Acw i n v h` G Ae` v i t c0 f j t Z Gme gvtQi c0c`Zv epx i Rb` w b a i f c t K š k j M Z c` t` f j c M0Y Kiv th t Z cv t i |

- gvQPvl c x i z t Z `K, wks I gv` i gvQ Pvl i ` i Z i A b p a e b, D c t h v M x c K t i i a i b, gvtQi c0K w Z K c R b b I L v` M0 t Y i ` f v e m a u` f K h t` o a v i Y v w t Z n t e |
- Gme gvtQi cRbb I Lv` i i t h v M v t b i m j e a v t` c K t i w b q u s Z g v i v q R j R D w` c i v L v i e` e` v K i v | G R b` c K t i i c v t o A i c w i g v t Y K j w g, t n t j A v, g v j A B Z w` i v L v i e` e` v K i v t h t Z c v t i |
- cRbb t g š m g m a u` t K` m s w k e` R b M Y t K m t P Z b K i v G e s g r m` m s i f j Y A v B b e v` e v q t b i g v a` t g K v i u R v j I g k v i x R v j e` e n v i e U K i v |
- cK i I A b` v b` R j v k q m a u` Y f f c t m t P g v Q A v n i Y K i v t` t K w e i Z ` v K v, Z t e c K i i K v t b v A v e k` K n t j c K t i i G K t K v b v q K q v ` Z w i K t i o g v o g v Q w n t m t e w K Q z g v Q i v L v i e` e` v K i v t h t Z c v t i |
- L v m R j v k t q I i v` w i c v k e` Z x L v t` m g v R w f w E K e` e` v c b v i g v a` t g G m e g v Q m s i f j t Y i e` e` v K i v t h t Z c v t i |
- m i K w i I t e m i K w i D t` v t M G m e g v t Q i K w i g c R b b I t c v b v m i e i v n w b w o Z K i t Z n t e G e s m e f M O G i P v l m a c 0 m i t Y i w t K b R i w t Z n t e | c 0 h v R` t` f j t c 0 k b x c K t i i e` e` v K t i R b M Y t K m t P Z b I A v M t h x K t i Z j t Z n t e |
- P v l i c K t i e Q t i i t K v b G K m g q c v k e` Z x e a v t` f j Z A` e v t W w e v - b v j v t` t K G m e t Q v U g v Q c 0 e t k i m t h v M m j o K i v t h t Z c v t i |
- c K i c 0 Z K v j x b m g t q i v f j t m I A e w A Z g v Q ` i x K i t Y w e l c 0 q v M c x i z w b i " r m w n Z K i v G e s R v j U v b v m n A b` v b` c x i z e` e n v t i D r m w n Z K i v |
- g r m` A v e m` t j c p i` x v i c e R n v l i - e v l o, w e j - w S j, g i v b` x G e s R j g n v t j i D b a b c e R G m e g v t Q i A v e m` t j i c w i w a e v o v t Z n t e |
- c K w Z t Z G m e g v t Q i c 0 K w Z K e s k e p x, m s i f j Y G e s A w` Z i i f l v q c 0 h v R` t` f j t g r m` A f q v k t y ` v c b K i t Z n t e |

eisj v` t k i g v b t l i c 0 p P w n` v c i t Y `K, wks I gv` i gvtQi fvgKv Acwi mxg| eZ0v t b Gme gvtQi Aw` t z j i Rb` metP t q eo u g w k n t` Q Gme gvtQi Ave m` t j i e`vcK m s t K v P b G e s b` x - b v j v, L v j - w e t j i R j R c w i t e t k i w e e Z 0 | A c w i K w i Z, m g s t q n x b D b a b I D r c v` b e` e` v c b v i K v i t Y m v g w M K f v t e A b` v b` g v t Q i g Z `K, wks I gv` i g v t Q i D r c v` b l m g k t K t g A v m t Q | G m e g v Q m s i f j Y I D r c v` b e p x i R b` w e w f b a e K v h` e r g n v t Z t b q v A v e k` K | G m e c R w Z i g v Q t K ` e A v i b K c x i z t Z P v l i A v l Z v q A v b v c 0 q v R b | m v g w M K f v t e R j R c w i t e t k i m p z e` e` v c b v i g v a` t g G m e g v t Q i e s k w e` v t i i m t h v M m j o K t i G i D r c v` b e v o v t Z n t e; c v k v c w k g y` R j v k t q e` v c K w f w E K A f q v k t y ` Z w i I m v g w R K m t P Z b Z v e p x K i t Z n t e | m e f M 0 g r m` m s i f j Y A v B t b i m w K c 0 q v M G e s e v` e v q t b b Z b A v B b c 0 q b I Z v m w K f v t e e v` Z e v q b K i t Z n t e | w e t k l K t i c R b b t g š m t g t` k x q c R w Z i G m e g v Q a i v I w e j r q w b w l x K i t Z n t e |

G Q v o v l i v R` w f w E K B R v i v c 0 v i c w i e t Z` R j g n v t j i ` R w e K D r c v` b g j K e` e` v c b v i g v a` t g i v R` ^ A v` v q e` e` v e v` - e v q b K i t Z n t e h v t Z m a u` t` i m n b k x j e` e n v i, A v e m` t j D b a b e v D c t h v M x K i Y I R x e` e w P I` t K g v b t l i K j` v t Y e` e n v i K i v h v q | G j t` f j c 0 q v R b x c w i K i b v M0Y c e R G B w e c b z v i n v Z t` t K g j` e v b g r m` c R w Z m g n i f l v q m s i k e` - c 0 Z o b m g n t K` p c` t` f j c w b t Z n t e - h v n t e c K Z A t` B t` k I R w Z i R b` K j` Y K i |

Awatekb cwi Kí bv

w`b t 01

mgq t 12.15-13.15

tgqv` Kvj t 60 wgvbU

wk`ti vbg t `K, wks l gv, i gvQ i RxeweÁvb |
 Avfó`j t grm` Awa`Bti i / Ab'vb` KgRZ`e`

j`j t ciklji Yv` i `K, wks l gv, i gvQ i RxeweÁvb m`ú`K`Rvb`Z cvi te hv`Z ciklji Yv` x`Y grm` Pwl` i
 `K, wks l gv, i gvQ i Rxeb P`i w`f`b`avc eY`v Ki`Z cvi te |

D`i`k` t G Awatekb Awatekb tk`l AskM`YKv`i` i t` k`xq c`Rw`Zi t`vU gv`Q i -

- ewn`K `enkó` m`ú`K`Aew`ZKi Y |
- em`vb, Lv` I Lv`v`v`m m`ú`K`Ávb mg`x`Ki Y |
- c`Rbb Kvj l w`Wg avi Y j`g`Zv m`ú`K`úó avi Yv c`v`b |
- Pvl c`x`w`Z m`ú`K`Aew`Z Kiv n`e |

wel qm`P	Av`j v`P` wel qm`ga	ciklji c`x`w`Z	mgq
f`w`g`Kv			5 wgvbU
	<ul style="list-style-type: none"> • `w`M`Z • i`f`Qv w`v`bgq • cwi Pq ce` • t`Kv`m`n`ú`K`Z c`v`w`g`K avi Yv 	e ³ Zv	
wel qe`			50 wgvbU
	<ul style="list-style-type: none"> • Pvl t`h`v`M` t` k`xq c`Rw`Zi t`vU gv`Q i Rxewe`v` 	e ³ Zv l GKK KvR	
mvi -mst`j`c			5 wgvbU
	<ul style="list-style-type: none"> • gj wel hmg`ni cpi v`j v`Pbv • D`i`k` hv`PvB • n`v`U`AvDU we`Zi Y • ci e`Z`Awatekb`i Dci Av`j v`Kci`Z • ab`ev` Ávcb 	e ³ e`	
ciklji m`v`q`K m`v`g`M`t tevW`g`v`K`f`i, n`v`U`AvDU, w`de`PvU`B`Z`w`			

wdcPvU`cwi Kí bv

<p>1</p> <p>ˆK, ˆks l gv, i gv tQi RxeveÁvb</p>	<p>4</p> <p>_vB ˆK t</p> <ul style="list-style-type: none"> • t`tni eY`hvj Kv d`vKv`k • t`tni Dcwi fVM tQvU tQvU Kvj `vMhy³ • Dcwi fvtM tQvU gvsmctÉi Kvb`Kvi i tq`Q <p>Avevm`j t</p> <ul style="list-style-type: none"> • gj³ Rj vkq/ cvebfwg • c`Ki, tWvev-bvj v, b`gv, nvl o-evl o BZw` Rj vk`tqi wbtPi `t`i • Avovij RvZxq Rj R Dw^m, Kj gx tntj Áv gjj Á l Rj R Ab`vb` tSnc-Svo cQ` Kti
<p>2</p> <p>ˆK gv tQi tkiYveb`vm (Classification)</p> <p>Phylum - Chordata</p> <p>Class- Osteichthyes</p> <p>Order- Perciformes</p> <p>Family- Anabantidae</p> <p>Genus- <i>Anabas</i></p> <p>Species- <i>A. testudineus</i></p> <p>mavi Y/ `vbxq bvg t ˆK gvQ</p> <p>Bsti`R bvg t Climbing Perch</p>	<p>5</p> <ul style="list-style-type: none"> • Giv K`gv³ `vb, MZ³, wbgw³ Z MvtQi `woi Zj v l mj t¹/₂ _vKtZ l fvj evtm Ges tmZnxv Ave^x cmbtZ teuk t`Lv hvq • Lv` l Lv`v`v`m t • ti Yychiq t AvtU³gv Ryc`#Uv, qiz` Rj R tcvKv-gvKo BZw` AvKl`Bxq Lv` • RtfbvBj chiq t Ryc`#Uv, qiz` Rj R tcvKv, wJDeiclmW l qvg³ • etqvcB Ae`vq t Rj R tcvKv-gvKo, tebt`vm, wJDeiclmW, qiz` wPsw l gvQ, tWuUvm, cPbi Z cWYR `e`w`
<p>3</p> <p>cwi`PwZ</p> <ul style="list-style-type: none"> • GuU GKwU wRl j gvQ A`f Giv Ab`vb` cmbtZ `xN`Y teP`_vKtZ cvti • gv_v eol cQ w` tKvYvKwZ • t`tni eY`Kvj tP meR ev ev`vgx meR • `tUv tPvqvj B `vZhy³ • cP l e`q cvLbv avitj v Kulvhj³ • tj R AaP`iKwZ ˆK gvQ Kvb`Kv w` tq `j fvtM Pj vPj v KitZ cvti • Kvb`Kvi wQtb Kvjt v `vM we`gvb • Zj bvgj Kfvte _vB ˆK gv tQi AwfclqYkxj gtbvfe Kg • _vB ˆK i ay wWg Ovovi mgq Avmtj wKQjv AwfclqYkxj gtbvfe t`Lv hvq • cj`tl i Zj bvg `x ˆK gvQ teuk eo nq • 80- 100 Mq l R`bi GKwU ˆK gvQ 6,000-8,000 wU wWg w`tZ cvti 	<p>6</p> <ul style="list-style-type: none"> • GK eQti B cRbb`q ng Ges mteP 17 tmwg. j`af nq • cRbbKvj Gwcl`-tm`P`af gym chS`Zte Gwcl` t`tK Rj vB gym chS`-Dchj³ mgq • el`f cOit`af`epo Avmtj B Giv AwfclqY Kti bZb `v`tb P`j hvq Ges th `v`tb _v`K mavi YZt tmLvtb wWg OvotZ cQ` Kti bv • bZb `v`tb Gtm wWg OvotZ Ges Ovovi 18-24 N`uvi gta`B wWg dtU ev`Pv teo nq • ti Yj eqm 2/3 w`b ntj c`KwZK Lv` M`Y Kti • BbtRkKb c`qvm Kti G`i cRbb Kiv hvq

wks gvQ

<p>7</p> <p>tkiYveb`vm (Classification)</p> <p>Phylum - Chordata</p> <p>Class- Osteichthyes</p> <p>Order- Siluriformes</p> <p>Family- Heteropneustidae</p> <p>Genus- <i>Heteropneustes</i></p> <p>Species- <i>H. fossilis</i></p> <p>`vbxq bvg t wks</p>	<p>8</p> <p>cwi`PwZ</p> <ul style="list-style-type: none"> • t`n j`af, AwBkwenxb • mvg`bi w`tK bj vKvi wQtb i w`tK P`vPv gv_v i Dc-wcV P`vPv • tQvU Ae`vq ev`vgx j vj Ges eo Ae`vq ami Kvj tP • g`L Pvi tRiov tMwd`_v`K • gv_v i `Bcvtk w`l v³ `wU Kulv AvtQ • cP cvLbv tQvU tMvj vKwZ`Ges cvqvcLbv tek j`af, • tj R tMvj vKwZ
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^K gvftQi RxeivAvb (Biology of Koi)

^K gvftQi tkivweb`vm (Classification)

- Phylum - Chordata
- Class- Osteichthyes
- Order- Perciformes
- Family- Anabantidae
- Genus- Anabas
- Species- A. testudineus

mvavi Y/ `vbxq bvg t` K gvQ

BstivR bvg t Climbing Perch



t` kx` K



_vB` K

cwi vPvZ

^K gvQ eivj vt` tk LpB Rbucb gvQ wntmte cwi vPZ | GuU GKwU wRi j gvQ A`P Gi v mvgv` cwbftZ `xNqY tetP _vKtZ cvfti | G gvftQi gv_v eo I c`q w`tkvYvKwZ | t`tni eY`Kvj tP-meR ev ev`wg-meR | gv_vmn mvi vt` n k³ AvBk w`tq XvKv | `ftUv tPvqtj B`wZ AvftQ | cp I e`l cvLbv avivtj v KuUvhj³ | tj R AaP`tkwZ | wki`vov ti Lv`B fvtM wef³ | ^K gvQ KvbftKv w`tq `j fvtM Pj vPj Ki tZ cvfti | KvbftKvi wCQtb Kvtj v tcvUv w`gvb |

t`wk` K gvftQi cvkvcwk Avti KuU bZb RvZ _vBj`vE t`tK Avbv ntqtQ, hv`_vB` K`bvtg cwi vPZ | Gt` i t`n eY`t`wk` K gvftQi Zj bvg nvj Kv d`vKvfk ai tbi Ges t`tni Dcwi fvtM tQvU tQvU Kvtj v`vM _vftK | eZgvtb eivj vt`tk AftBk AAftj B mwgZ AvKvti`_vB` K`mdj fvtv PvI vev` nt`Q |

t`wk` K I _vB` K gvftQi kwi i xk`enk`MZ cv`R`

μ. bs	t` kx` K	_vB` K
1	Zj bvgj Kfvte tQvU, Kg gvsmj I j`ftU ai tbi	Zj bvgj Kfvte eo gvsmj I Pl ov ai tbi
2	tQvU Ae`vq Kvj tP ai tbi cwi ckj Ae`vq wctVi w`tK ev`vgr meR Ges tctUi w`tK nvj Kv nj`y i tOi nq	t`n eY`t`wk` K gvftQi Zj bvg nvj Kv d`vKvfk ai tbi t`tni Dcwi fvtM tQvU tQvU Kvtj v`vM _vftK Ges cvLbv`tj v nvj Kv nj`y i tOi nq
3	KvbftKvi wCQtb Kvtj v`vM _vftK wKŠ`cyQ cvLbvq tMvovq Kvtj v`vM _vftK bv	KvbftKvi wCPtb I cyQ cvLbvi tMvovq Kvtj v`vM _vftK
4	gt` c`ŠK I “v” AvKwZi	gt` eo ck`-I “U” AvKwZi
5	KvbftKvi KuUv Lp k ³ , AvbqwgZ Ges avivtj v	KvbftKvi KuUv Zj bvgj Kfvte bi g, wbgwgZ Ges mj`fvte LuRKuUv
6	AsKxq w`tK AvBtRi m ³ / ₄ “U” AvKwZi	AsKxq w`tK AvBtRi m ³ / ₄ “v” AvKwZi

Aveŕm Āj

ĀK cĀvbZt gŕ³ Rjvkq ev crebfiŕgi gŕQ | ĀK gŕQ mvaviYZt Lvj -vej , nŕli -eul o, cĀi -w ĀN, tWvev -bvj v Ges wbgŕ³4Z avb tŕŕtZ cvl qv hvq | G gŕQ, tŕj v Avowj RvZxq Dŕ^ŕ Kj ŕg, tntj Āv Ges Rj R Ab'vb' tSŕc -Sŕo I Wj -cij v Aajŕl Z Rj vkŕq Ā'ŕQ³ emevm Ki tZ cO³ Kti | ĀK gŕQ MŕZ³ wbgŕ³4Z MŕQⁱ , ŕoi Zj vq ev mŕt¹/₂ emevm Kti Ges tŕiZnxb Ave^x cwbtZ teik t' LtZ cvl qv hvq |

Lv³ | Lv³ vŕ'vm

ĀK gŕQ mvaviYZt KxU cZ¹/₂tŕvR^x (Insectivorous) Ges Kŕgŕotq Kŕgŕotq Lvei Lvq | RxebPŕ¹/₂i ŕeŕfbœchŕq Giv ŕeŕfbœai tbi Lv³ tLŕq _vŕK thgb-

ti Yychŕq t AvŕUŕq^v, Rŕc³4Ub, ŕŕi³ Rj R tcvKv -gŕKo BZ³ w³ AvKl ŕxq Lv³ |

RŕfbvBj chŕq t Rŕc³4Ub, ŕŕi³ Rj R tcvKv, ŕUDŕeŕclŕmW I qvq^ŕ

etqvcŕB Ae³ vq t Rj R tcvKv -gŕKo, tebt³ vm, ŕUDŕeŕclŕmW, ŕŕi³ vPŕo I gŕQ, tWŕUŕm, cPv cŕŕYR³ Ē³ w³ |

cwi cKZv I cŕRbb

cŕg eQti B ĀK gŕQ cwi cKZv j vŕf Kti Ges mŕe^ŕP 17 tŕmŕg. j ŕ^ŕ nq | GK eQti B Giv cŕRbbŕŕg nq Ges eQti GKeri cŕRbb Kti _vŕK | ĀK gŕQⁱ Dch³ cŕRbbKvj nj Gŕc^ŕ t³ K Rj vB gŕm | Zte G gŕQ gŕP^ŕgŕm t³ K tŕtP^ŕ gŕm ch³ -cŕRbb m^ŕubœKti _vŕK | cŕRbb i i³ cŕe^ŕelŕq eŕ^ŕ bŕgtj B Gŕ³ i tK cŕRbtbi Rb³ AwŕcŕqY Ki tZ t' Lv hvq | cŕRbtbi Rb³ KB gŕQ avbtŕŕZ, tWvev, cĀi -bvj v, Lvj -vej BZ³ w³ Āvŕb Pŕj hvq | mvaviYZt Giv th RvqMvq _vŕK tŕ RvqMvq cŕRbb Kti bv | ZvB cŕRbbKvŕj AwŕcŕqŕYi gŕv³tg Āvb e³ j Kti tbq | AZtci Giv bZb Āvŕb Gŕm tSŕc -Sŕo RvZxq Dŕ^ŕ i gŕa³ Avkŕq wbtq ŕWg Qŕto I cŕRbb m^ŕubœKti _vŕK | Gŕ³ i ŕWg fŕmŕgvb | Zvcŕvŕvi I ci wŕf^ŕ Kti 18-24 NĒvi gŕa³ wŕl³ ŕWg dŕU ti Yynq | D³ ti Yŕtcbvi Kŕmŕ³ 2/3 ŕ³ tbi gŕa³ ŕ³tg ŕ³tg tkI ntj Avŕ³ -Avŕ³ -cŕKŕZK Lv³ MŕY Kti Ges ŕgŕŕŕq eo nq | Dŕj ³ th, ni tŕgv BbtRkktbi gŕv³tg Kŕl g Dcvŕq | Gŕ³ i tK cŕRbb Ki vŕbv hvq | Zj bŕgj Kŕvŕe ŕ³ vB ĀKŕ gŕQ ŕ³ w³ ĀKŕ gŕQⁱ Zj bŕq AŕbK Kg AwŕcŕqYkxj gŕbŕvŕe cŕ k^ŕ Kti | i ay tŕU ŕWg Avŕvi ci cŕRbb tŕŕmŕg ŕ³ vB ĀKŕ wKŕ³ v AwŕcŕqYkxj gŕbŕvŕe cŕ k^ŕ Kti _vŕK |

cj³ | ĀK gŕQⁱ Zj bŕq Ā³ ĀK gŕQ AvKŕti wKŕ³ v eo nq | GKŕU 80-100 Mŕg I Rŕbi ĀK gŕQⁱ ŕWg avi YŕŕgZv 6,000-8,000 Gi gŕa³ ntq _vŕK |

ᄡks gvᄡQi Rxeᄡv (Biology of Shing)

tᄡiYneb`vm (Classification)

- Phylum - Chordata
- Class- Osteichthyes
- Order- Siluriformes
- Family- Heteropneustidae
- Genus- *Heteropneustes*
- Species- *H. fossilis*

`vbxq bvg t ᄡks

Bsᄡi ᄡR bvg t Stinging Catfish

cwi vPvZ

ᄡks gvᄡQi ᄡ`n j ᄡᄡ, mvgᄡbi ᄡ`K bj vKvi, ᄡcQᄡbi ᄡ`K Pvcv, AvBkᄡenxb Ges gv_vi Dcᄡi-ᄡbᄡP P`vPv| ᄡ`ᄡni is ᄡQvU Ae`vq ev`vqx j vj Ges eo Ae`vq ami Kvj ᄡP| gᄡL Pvi ᄡRvov ᄡMud (Barbel) ᄡvᄡK| gv_vi `ᄡcvᄡk ᄡel v³ `ᄡU KulUv (Spine) AvᄡQ| cᄡ cvLbv (Dorsal fin) ᄡQvU ᄡMvj vKᄡZ Ges cvqy cvLbv (Pelvic fin) tek j ᄡᄡ, cᄡQ cvLbv (Caudal fin) ᄡMvj vKᄡZ| ᄡcᄡVi `ᄡ cvᄡk `ᄡU AvZwi³ kᄡbhᄡj (Accessory respiratory organ) iᄡᄡQ| eZᄡvᄡb evsj v`ᄡᄡi ᄡeᄡfbᄡe Gj vKvq ᄡ`kx ᄡks gvQ ᄡᄡᄡZ AvKvᄡi ᄡdj fvᄡe Pvl ᄡᄡ`Q|



Qwe t ᄡks gvQ

Aveᄡm`j

ᄡks gvᄡQi cᄡvᄡ Aveᄡm`j ᄡᄡj v Lvj, ᄡej, cᄡeb fᄡg, ᄡvl o-eul o, cᄡKi, ᄡWvev- bvj v, ᄡbgᄡᄡZ avbᄡᄡZ | G Qrov K`ᄡv³ Zj vi gvᄡᄡZ, ᄡᄡZ, ᄡbgᄡᄡZ ᄡvᄡQi ᄡᄡᄡi Zj vq ev ᄡᄡᄡᄡ Giv emevᄡ KiᄡZ cQ` Kᄡi | ᄡᄡZᄡᄡ Ave× cᄡᄡᄡZ Gᄡ`i ᄡeᄡ ᄡ`LᄡZ cvl qv hvq| ᄡks gvQ AvMvQv, `j, Kᄡᄡi cvbv, cᄡPv j Zv-cvZv, Wvj -cvj v Aa`vl Z Rj vᄡᄡᄡ `ᄡᄡᄡ` emevᄡ KiᄡZ cvᄡi |

Lv` I Lv`vf`vm

ᄡks gvQ ᄡvavi YZt ᄡeᄡK (Omnivorous), Rj vᄡᄡᄡi Zj vi Lv` ᄡLᄡᄡ ᄡvᄡK| ᄡks gvQ Zvᄡ`i RxbPᄡᄡi ᄡeᄡfbᄡe chᄡᄡᄡ ᄡeᄡfbᄡeai ᄡbi Lv` ᄡLᄡᄡ ᄡvᄡK|

ᄡi Yychᄡᄡ t AvᄡUᄡᄡ Ges Ryc`ᄡᄡUᄡ, ᄡᄡᄡ`Rj R ᄡcvKv-gvKo BZ`ᄡᄡ AvKl ᄡᄡᄡ Lv`

RᄡᄡbvBj chᄡᄡᄡ Ryc`ᄡᄡUᄡ I ᄡᄡᄡ`Rj R ᄡcvKv, ᄡDᄡeᄡᄡᄡᄡ I qvᄡᄡ

eᄡᄡcᄡB Ae`vq t Rj R ᄡcvKv-gvKo, ᄡebᄡ`vm, ᄡDᄡeᄡᄡᄡᄡ I qvᄡᄡ, ᄡᄡᄡᄡᄡ I gvQ, ᄡWᄡUᄡᄡ, cᄡPv cᄡᄡR `ᄡᄡᄡ |

cwi cKZv I cᄡRbb

ᄡks gvQ GK eQᄡiB cwi cKZv j vᄡ Kᄡi Ges cᄡRbbᄡᄡᄡ nq| Giv ᄡvavi YZt 20-30 ᄡᄡᄡ. chᄡᄡ-j ᄡᄡ nq| ᄡks gvQ eQᄡi GKeᄡi cᄡRbb Kᄡi ᄡvᄡK| Giv cᄡKᄡZK cwi ᄡeᄡk ᄡMᄡxi ᄡSuc-Svo RvZxq Dvᄡᄡᄡ hᄡᄡ Gj vKvq cᄡRbb ᄡᄡᄡᄡKᄡi | Zᄡe eZᄡvᄡb ᄡ`ᄡᄡi ᄡeᄡfbᄡeᄡvPwi ᄡZ ᄡᄡᄡZ AvKvᄡi ᄡdj fvᄡe Kᄡᄡᄡ cᄡRbᄡbi gva`ᄡᄡ ᄡcvbv Drcᄡᄡ Z ᄡᄡ`Q|

ᄡks gvᄡQi Dchᄡᄡ cᄡRbbKvj ᄡg gvm ᄡ`ᄡK ᄡᄡᄡᄡᄡ gvm chᄡᄡ Zᄡe Rᄡ-Rj vB gvᄡᄡ ᄡᄡeᄡᄡᄡ gvᄡᄡᄡ cᄡRbb ᄡᄡᄡᄡKᄡi ᄡvᄡK| ᄡvavi YZt `ᄡᄡ ᄡks gvQ cᄡ`I ᄡks gvQ ᄡᄡcᄡᄡ AvKvᄡi eo ᄡᄡᄡ ᄡvᄡK| ᄡvavi YZt 40 ᄡ`ᄡK 70 ᄡᄡᄡ I Rᄡᄡi ᄡks gvᄡQi ᄡWᄡᄡ avi Yᄡᄡᄡ 8,000-10,000ᄡᄡ| cwi cKj ᄡWᄡᄡ ᄡvj Kᄡ ᄡeᄡR ᄡ`ᄡK ZvgᄡᄡU eᄡYᄡᄡ nq| ᄡᄡᄡ³ ᄡWᄡᄡ AvVᄡᄡj v nq Ges ᄡbgᄡᄡZ AvMvQv, ZY, Wvj -cvj v BZ`ᄡᄡ ᄡZ ᄡᄡ ᄡvᄡK|

gv, i gvQ i RxeveAvb (Biology of Magur Fish)

gvMj gvQ i tkiiYieb'vm (Classification)

- Phylum - Chordata
- Class- Osteichthyes
- Order- Siluriformes
- Family- Claridae
- Genus- *Clarias*
- Species- *C. batrachus*

'vbxq bvg t gv, i

Bsti wR bvg t Walking Catfish



Qwe t gv, i gvQ

cwi wPvZ

gv, i AvBkwenxb wRl j gvQ | t'n jvj tP ev'wg ev ami Kv'tj v | Gt' i gv_v tek P'v'v, gL cK' t cP (Dorsal fin) | cvq-cvLbv (Pelvic fin) j s'f Ges tj tRi Ask chS-we'Z | tj tRi Ask Pvcv I tMvj vKwZ | g'L Pvi tRvov tMud (Barbel) AvtQ | wct'vi `B cvtk' `tUv AwZwi³ kmbhS_i (Accessory respiratory organ) itqtQ, hvi dtj Giv `xN'Y cwb Qvov tetP_vKtZ cvti | evsj vt' tki weifbaGj vKvq mxwZ AvKvti mdj frte t'wk gv, i gvQ i tcvbv Drcv' b I Pvl nt'Q |

Avevm'j

Lvj, wej, cwebfwg, nvl i-eul o, cKi-w'wN, tWew-bvj v Ges wbgw'Z avbt'Z gv, i gvQ i c'vb Avevm'j | Giv Kv'vhy³ cwb'tZ GgbwK K' g³ Zj vi gwUtZ, MtZ, wbgw'Z MtQi , woi Zj vq ev mpt'z emevm KitZ cO' Kti | tm'Znxb Ave'x cwb'tZ Ges AvMvQv, bj -LwMov I KPwi cvbvq, cPv Wvj -cvj v hy³ Rj vktq 'v'Q' emevm KitZ cvti |

Lv' I Lv'vf'vm

gv, i gvQ mvaviYZt mePK (Omnivorous) Ges Rj vktqi Zj vq emevm Kti | Giv Rxeb Pt'ui weifbaech'q weifbae ai'tbi Lv' tL'tq_vtK | Gt' i Lv'vf'vm AtbKUv wks gvQ i Lv'vf'v'tmi Abj'c | thgb-ti Yych'q t AvtU'qv Ges Ry'c'w'ub, q'z' Rj R tcvKv-gvKo BZ'w' |

Rt'fbvBj ch'q t Rc'w'ub I q'z' Rj R tcvKv, wJweidmW I qvg'

etqvc'B Ae'vq t Rj R tcvKv-gvKo, tebt'vm, wJweidmW I qvg', q'z' w'psio I gvQ, tWwUvm, cPv c'w'YR `e'w' |

cwi cKZv I cRbb

gv, i gvQ GK eQt i gta'B cwi cKZv jvf Kti Ges eQt i GKevi cRbb Kti vtK | Giv mvaviYZt 20-30 tmwg. chS-j s'f nq | GKB eqtmi 'x gv, i gvQ cv' l gv, i gvQ i Zj bvq wKQ'v AvKvti eo nq | Giv c'KwZK cwi tetk cRbb m'ubae Kti | Zte eZ'v'tb mdj frte Kwi'g cRbt'bi gva'tg mxwZ ch'q tcvbv Drcw' Z nt'Q | Gt' i cRbbKvj tg gvm t_tK AvM÷ gvm chS+ Zte Rb-Rj vB gvtm mte'P cRbb Kvj wnt'mte wete'PZ | cRbt'bi mgtq by'z cwb Avmvi mv'_mv'_B G gvQ Avf'c'qY Kti wKueZi' avbt'Z, cwebfwg'tZ Avtm Ges tmLvtb gwUtZ tMvj vKvi MZ'Kti ZvtZ wWg Qvto | gv, i gvQ i wWg aviY q'gZv 'w'wK I Rt'bi I ci AtbKvst'k w'f'kxj | mvaviYZt 80 t_tK 100 Mg I Rt'bi gv, i gvQ i wWg aviY q'gZv 7,000-10,000w ntq vtK | gv, i cwi cK; wWg nvj Kv meR t_tK Zvgv'u et'Y' ntq vtK | wbi' wWg Avvt'j v Ges MtQi Wj -cvj v I AvMvQv tj tM vtK |

Awa`tekb cwi Kí bv

w` b t 01

mgq t 13.15-14.00

tqqv` Kvj t 45 wgvbu

wk`i v bvg t gvQ PvfI cwbi ,Yv, Y e`e`vcbv|

Afxó` j t grm` Awa` Bti i KgRZP Ges Ab`vb` m`c`hvi Y KgxP

j`¶¶ t AskMhYKvi xMYtK gvQ PvfI cwbi weifbæ, Yv, Y I tm, tj vi , i`Zi m`ú`K`mg`K avi Yv t` qv Ges nvZ Kj t g cix¶¶v Kivt`bv hvZ Zuv G w`l`tq AwRZ Ávb Øviv mwKfvte c¶Ki /Rj vktqi cwib e`e`vcbv i j`¶¶ Pwlt` i h_vh_ ci v gk`c0 vb Ges cwbi t fSZ-i v m v qubK , Yvej x c0 k0 Ki t Z cvt i b|

Dt`i k` t G Awa`tekb tktI c`kx`y Yv_x¶¶Y-

- gvQ PvfI cwbi weifbæ, Yv, tYi , i`Zi ej t Z cvi t eb |
- gvQ PvfI cwbi t fSZ-i v m v qubK , Yv, Y mg`ni tktI we b`vm Ki t Z cvi t eb |
- cwbi weifbæ t fSZ-i v m v qubK , Yv, Y mg`ni Kw¶¶Z I ¶¶wZKi gvT v Dtj E-Ki t Z cvi t eb |
- cwbi weifbæ t fSZ-i v m v qubK , Yv, Y mg`ni gvT v Kw¶¶Z ch¶¶q i v Lt Z c0 qv Rbxq e`e`v MhY Ki t Z cvi t eb |
- gvQ PvfI cwbi `RweK , Yv, Y e`vL`v Ki t Z cvi t eb |

wel qmP	Avtj vP` wel q	c0k¶¶Y tKŠkj	mgq
fvgKv t			5 wgvbu
	<ul style="list-style-type: none"> • `M Z Rvvtbv • ce0Zx`Awa`tektbi cpi vtj vPbv • eZ0vb Awa`tektbi I ci Avtj vKcvZ • eZ0vb w`l`tqi Dt`i k` • Awa`tekb m`ú`K`D0x`Ki Y 	e ³ Zv I c0k¶¶Ei	
wel qe` t			35 wgvbu
	<ul style="list-style-type: none"> • cwbi , Yv, Y mg` I gvQ PvfI Zvi c`fve • gvQ PvfI cwbi t fSZ , Yv, tbi , i`Zi • gvQ PvfI cwbi i v m v qubK , Yv, tYi , i`Zi • gvQ PvfI `xrfZ AwKtRb I Kve0 WvB-A· vBtWi c`fve • cwbi `RweK , Yv, tYi , i`Zi e`vL`v Ki t Z cvi t eb 	e ³ Zv, wdePvU ⁰ `j xq KvR, c0k¶¶Ei	
mvi -mst¶¶c t			5 wgvbu
	<ul style="list-style-type: none"> • cpi vtj vPbv • Dt`i k` hvPvB • n`vEAvDU weZi Y • cieZx`Awa`tektbi mivZ mst`hvM 	e ³ Zv, c0k¶¶Ei I DcKi Y c0 k0	
c0k¶¶Y mivqK mvgM0 t wdePvU ⁰ , gvK¶¶, tnvqvBU teW ⁰ , n`vUAvDU, cwib cix¶¶vi DcKi Y BZ`w`			

gvQ Pvl cmbi YvY

c0ZwU c0Yxi my i fvt e mevtmi Rb Zvt i DcthwMx ^v^Ki emv^vtbi c0qvRb| gvtQi emv^vb nt^Q Rj vkq Ges Rieb avitYi GKgvI gva^g nt^Q cwb| mYi vs gvtQi tmB emv^vbl nI qv Pvb ^v^m^sZ| gvtQi Lv^ M0Y, tetP_vKv, ^wK ewx, cRbb Ges Ab^vb i ZcY^Kvhw m0fvte cwi Puj bvi Rb^ cmbi wevfbaifSZ, i vmvqubK I RweK Yvej xi GKwU AbKj gvtv itqtQ|

cmbi YvY

cmbi YvY ejtZ gvtQi tetP_vKv I ^vfwEK ewxi Rb^ cmbi mnbkij Ae^vtK eSvq| cwbZ wevfbaifbi M^vm, thgb- Aw^ tRb, bvBtUtRb, KveB Wb-A- vBW, AbvqubZ Avtgmbqv, nvBtWtRb mvj dvBW Ges wgt_b; A^Re c^v_fgn, thgb- dmdivm, K^ij wmqvg, cUvmqvg, g^m^t^w^mqvg, tmwMqvg BZ^w; ^exfZ ^Re c^v_fgn- GgvBt^bv GmW, tc0Uub, kK^Pv, d^wU GmW, wFuwgb I tUwbK GmW; A^exfZ ^Re c^v_fgn, h_v- e^vt^w^i qv, tc0Uv^Rvqv, Dw^c-c^w^Uub I c0Y-c^w^Uub; A^eYxg ^Re c^v_fgn h_v- g^m^U^i KYv BZ^w wevfbaifvq we^g^vb ^vtK| G_tjv Qovl wKQytfSZ Dcv^vb, thgb- Zvcg^lv, cmbi Mfxi Zv, Avtjv, tNvj vZj BZ^w cmbi YvY tYi I ci c^ve we^hi Kti | wbtP cmbi YvY wbgS^YKvi x fSZ-i vmvqubK I RweK Dcv^vb m^u^t^K^Avtj vPbv Kiv ntj v|

cmbi tfSZ YvY

cmbi tfSZ Ae^v ch^e^17Y Kti cKti i Drcv^b 17gZv m^u^t^K^avi Yv Kiv hvq| cmbi tfSZ YvY tYi v wbg^e^fct

eY^

cmbi nvj Kv meR eY^cKti i Aw^K Drcv^bkij Zv wbt^R Kti | cwbZ bvBtUtUi cwi gvY Kg ntj cmbi eY^nj^v^f nq| dmdiv^mi cwi gvY Ktg tM^j cwb Kvj tP eY^avi Y Kti | ami eY^P cwbZ KveB Wb-A- vBtWi cwi gvY Kg ^vtK| tKvb tKvb Dw^c-c^w^Uubi Aw^K^i Rb^ cmbi eY^gitP jvj nq, wKSyG_tjv gvtQi Lv^ bq| wbtPi mvi wYtZ cmbi eY^P I ci wfw^E Kti gvQ Pvl i DcthwMxZvi avi Yv c0vb Kiv ntj v|

mvi wY-1 t cmbi eY^P I ci wfw^E Kti gvQ Pvl Rj vktqi DcthwMxZvi aib Abgyb

cmbi eY^	c0KwZK Lv^ i cwi gvY I cKwZ	gvQ Pvl DcthwMxZv
^Q	Dw^c-c^w^Uub bvB	f^j bq
meRvf	cwi gvYgZ Dw^c-c^w^Uub AvtQ	f^j
Nb meR	AwZwi^3 Dw^c-c^w^Uub AvtQ	17wZKi
ev^vgx meR	cwi gvYgZ Dw^c I c0Y-c^w^Uub AvtQ	D^Eg
ami meR	Af Dw^c-c^w^Uub I fvmg^vb cwj KYv we^g^vb	Kg DcthwMx
gi tP jvj	gvtQi Lv^ bq Ggb Dw^c-c^w^Uub we^g^vb	DcthwMx bq

Mfxi Zv

gvtQi c0KwZK Lv^ c^w^Uubi Drcv^b I mtjvKms^t^k^t^Yi Rb^ mh^jvK Acw^nvh^ cKti teuk Mfxi ntj mh^jvK w0^ Mfxi Zv ch^s-tc0tZ cvti bv, GtZ c0KwZK Lv^ i ch^B Drcv^b nq bv, dtj gvtQi ewx e^vnZ nq| cKti i Mfxi Zv Kg ntj cwb Mig ntZ cvti Ges Zj^t^k 17wZKi Dw^c Rb^tZ cvti | cmbi Mfxi Zv teuk ntj cKti i Zj^t^k Zvcg^lv Kg ^vtK, Aw^ tRtbi Afve NtU Ges Zj^t^k 17wZKi M^vm m^0 nq| G Ae^vq ^tY GovtZ Zj^t^ki gvQ I Ab^vb c0Yx cmbi Dcwi fvtM P^t Avtm|

- cKti cmbi Mfxi Zv Kgct^1 1.5 wgvUv t^tK 3 wgvUv ch^s-ntZ cvti |
- ^B wgvUv Mfxi Zv gvQ Pvl i Rb^ D^Eg|

^QZv I tNvj vZj

cKti i cwb tNvj v ntj KvRi mh^jvK cmbi w0^ Mfxi Zv ch^s-c0ek KitZ cvti bv| dtj gvtQi c0KwZK Lv^ A^R Dw^c-c^w^Uubi Drcv^b Ktg hvq| Avevi cmbi Dcti i ^hi AwZwi^3 Dw^c-c^w^Uub Drcv^tbi dtj I cmbi ^QZv Ktg th^Z cvti | GtZ Aw^ tRtbi Afvte gvtQi ^vfwEK Rxbhv^v e^vnZ nq| cmbi ^QZv 25 tmwUwgvUv ntj cKti i Drcv^b 17gZv teuk nq| tNvj v cwb gvtQi Lv^ Pwv^vtK c^veZ Kti | tNvj v cwbZ ^exfZ wevfbaifbi KYv gvtQi dj Kvq AvUtK t^tK dj Kv eU Kti t^q| GtZ gvtQi k^m wbtZ K0 nq| dtj gvtQi Lv^ Pwv^v nvm cvq|

- c0Z kZtK 1.0-1.5 tKwR nvti wRcmvg c0qvM Kti cmbi tNvj vZj ^t Kiv hvq|
- cKti i tKvYv Lt0i tQvU tQvU AwU ti tL w^tj I Gt^1^t^1 f^j dj cvl qv qvq|

Zvcgvĭv

gvQ kxZj i³weikó RjR cŃYx| gvŃQi kixĭi Zvcgvĭv cwbi Zvcgvĭvi mŃ_ DVvbgv Kĭi | ZvB gvŃQi eŃx nvi Zvcgvĭvi mŃ_ mivmwi m̄úKŃ³ | MŃYthvM` mxgvi (Optimum) gĭa` Zvcgvĭv evoĭj gvŃQi Lv` MŃĭYi cĕYZvl teŃo hvq| h_vh_ Zvcgvĭvq Awak Lv` MŃĭYi mŃ_ mŃ_ nRg wŃq v I wbtmiĭY Kg mgq j vŃM| dĭj Awak cwi gvŃY k³ Drcbeng, wKŠy e` q nq Kg cwi gvŃY| dĭj gvŃQi eŃx `ZZi nq| Zte Zvcgvĭv AZ`wak teŃo tMĭj cwbtZ Aw ĩRĭbi gvĭv KgtZ_vŃK| GĭZ gvŃQi Lv` MŃĭYi nvi nvm cvq Ges gvQ gviv thĭZ cvĭi | Avevi Zvcgvĭv Kĭg tMĭj gvŃQi Lv` MŃĭYi nvi Kĭg hvq| GRb` kxZKvĭj cKĭi mvi I Lv` i cwi gvŃY wKŃlv Kugĭq w ĩZ nq| Zvcgvĭv Lp teik Kĭg tMĭj gvQ Lvl qv` vl qv eŃ Kĭi w ĩZ cvĭi | cĭhZ Dĭj E, AMfxi (<1.15wg.) tŃv cKĭi (<10kZvsk) Zvcgvĭv Lp` Z DVvbgv Kĭi _vŃK|

i`BRvZxq gvQ PŃĭi Rb` AbKj Zvcgvĭv 25-30⁰ tm. | tKvb KvĭĭY cKĭi cwbi Zvcgvĭv teŃo tMĭj evBĭi t_ĭK cwi`vi VvĖv cwbi mieivn Kiv thĭZ cvĭi | tUvcvcbv Ńvĭv cKĭi cwbi 10 fvm AvqZĭb mvgvqKfvte Ńvqvi e`e`v Kĭi teik Zvcgvĭv wqšY Kiv thĭZ cvĭi |

wbĭPi mvi wĭZ weifbeZvcgvĭvq PŃĭvĭthvM KĭgKvl gvŃQi Lv` Pwn` v I eŃx i nvi t` l qv nĭj v |

mvi wY-2 t cwbi Zvcgvĭvi mŃ_ gvŃQi eŃx m̄úK[©]

gvŃQi cRwZ	Zvcgvĭv (°tm.)	Lv` Pwn` v	gvŃQi eŃx	gše`
KvZj v, i`B, gĭMj	30-35 20 <10	meĭPtq teik AĭcŃlvKZ Kg i`b`	mĭeŃP tgvUvgv eŃ	AbKj Zvcgvĭv - Lvl qv eŃ Kĭi t`q
wj fvi Kvc [©]	30 20 15	meĭPtq teik AĭcŃlvKZ Kg b`bZg	mĭeŃP wKŃKg Lp Kg	AbKj Zvcgvĭv - -
weMĭnW Kvc [©]	30 20-25 15	meĭPtq teik AĭcŃlvKZ Kg b`bZg	mĭeŃP Kg Lp Kg	AbKj Zvcgvĭv - -
Mĭm Kvc [©]	>38 35 20-30 <10	Kg meĭPtq teik AĭcŃlvKZ Kg i`b`	Kg mĭeŃP AĭcŃlvKZ Kg eŃ	A`ŃŃ` tava Kĭi AbKj Zvcgvĭv - Lvl qv eŃ Kĭi t`q
tZj wcvq	>40 30-35 15-16	i`b` meĭPtq teik i`b`	eŃ mĭeŃP eŃ	gviv hvq AbKj Zvcgvĭv Lvl qv cĭq eŃ Kĭi t`q

mĭĭj vK

mĭĭj vĭKi I ci cKĭi cŃ_wgK Drcv` kxj Zv Z_v Dw`c` -c`wUĭbi Drcv` b wŃF Kĭi | cKĭi cwbtZ Avĭjvi cĕek weifbeĭvte evavMŃ` nĭZ cvĭi | h_v- cKĭi cĭto eo MvŃcvj v, cwbi tNvj vZ; RjR AvMvŃv BZ`w | cKĭi cĭto eo MvŃ _vKĭj Wvj cvj v tKĭU w ĩq cwbtZ mĭĭj vK cĕeĭki e`e`v Kĭi tZ nte | cKĭi cwbi tNvj v nĭj Avĭjv cĕeĭk evavcŃB nq, dĭj c`wUĭbi Drcv` b Dcwi fvĭMi mvgv` ĩ`e`wmc mxgve` _vŃK| weifbeĭvte fvvgv AvMvŃv cwbtZ mĭĭj vK cĕeĭk evavi mĭo Kĭi | G_ĭj v mvi ĩq tĭj ĩZ nte | cKĭi cwbtZ Avĭjv cĕek evavMŃ`-nĭj Dw`c` -c`wUĭbi Drcv` b Kg nq | dĭj gvŃQi Drcv` bĭ Kĭg hvq |

cwbi i vmvqubK _Yv_Y

cwbi i vmvqubK _Yvej x RjR cwi ĩekĭK wqšY Kĭi | i vmvqubK _Yvej x cixŃlv Kĭi cKĭi Drcv` bkxj Zv m̄úK[©] mg`K avi Yv cvl qv hvq | wĭP cwbi weifbeĭv vmvqubK _Yv_Y m̄úK[©] Avĭj vPbv Kiv nĭj v |

cmbtZ cwi vqZ gvI vq Aw` tRb` vKtj Lv` i cwi eZb nvi epv` cvq | A` A`c`vKZ Kg cwi gvY Lv` AnaK cwi gvY gvQ Drcv` b nq | cmbtZ `exfZ Aw` tRtbi gvIv evotj gvQI Lv` Pwin` v epv` cvq Ges Aw` tRtbi gvIv Kgtj Lv` Pwin` v nvm cvq | GQovl klmKóRwbZ KvitY e`vKfvtv gvQ I vPswio gviv thtZ cvti | cmbtZ Aw` tRtbi cwi gvY mnbkxj gvIv vbtP tbtg tMjt vbajfc j` Y` tjt v cwi j` v`Z ntq` v`K` -

- gvQ cmbi Dci tftm Dtv I Lwie Lvq
- vPswio cKti cvtoi KvQ Ptj Avtm
- gvQ I vPswio Kwšaxbfvte cmbtZ tNvi vtdiv KitZ` v`K |

cmbi is AwZwi` meR ntj, Zj vq Lp teuk` Re c`v` v`Ktj, AnaK NbtZi gvQ-vPswio gRj` Kiv ntj, ev c`qvRtbi Zj bvt teuk` cwi gvY mvi I Lv` c`qvM Kiv ntj Dctiv` Ae`vi mjo nI qvi AvksKv` v`K | mvariYzt ga`ivZ t`K tfti i w` tK ev tgnjv` w` t` cKti Aw` tRb` t`Zv` t` Lv` t` q | cKti Aw` tRb` cwi gvc Kivi mgq Zj t` tki cmbtZ Kx cwi gvY Aw` tRb` `exfZ AvtQ Zv vetePbvq AvbtZ nte |

- mvgvqK Aw` tRb` NvWZ tgvKvtvj vi Dcvq
- cmbi Dcvi fvtM tXD mjo Kti ev cmb Avt` vuj Z Kti
 - mivZi tKtU ev evk vcvutq ev nvZ w` t` q cmb vQvutq
 - cv`ú w` t` q bZb cmb mi ei vn Kti |

Kveb WvB-A` vBW

gvQI tetP` vKvi Rb` Aw` tRb` thgb` i`ZcY` tZgvb gvQI c`KwZK Lv` `Zwi i Rb` Kveb WvB-A` vBW Acwi nvh` mvtj vKms`k` c`qvq GuU GKwU tgsj` K Dcv` vb | Kveb WvB-A` vBW Qov mvtj vKms`k` c`qvq m`ubentZ cvti bv | Gijc Ae`vq Rj vktqi c`vqK Drcv` b (Primary production) e`vnZ nq | cKti i Zj vq AZ` waK` Re c`v` Kiv` v`Ktj AnaK ZvcgvI vq cKti G M`v`mi AnaK` NtU | cmbtZ 2 vbhZsk Kveb WvB-A` vBW v`Ktj gvQI Drcv` b fij nq |

Kveb WvB-A` vBW M`vm cmbtZ ZvovZwo` `exfZ ntZ cvti | cmbtZ G M`v`mU gj` Kveb WvB-A` vBW, evBKvtePBU Ges KvebU vntmte` v`KtZ cvti | cmbtZ Kveb WvB-A` vBtWi` gj` Dm ntj v` Re c`v` cPb Ges cmbtZ Aew`Z Rj R Rxfi klm-c`klm |

Kveb WvB-A` vBtWi` c`v`e

cmbtZ Kveb WvB-A` vBtWi` cwi gvY nvm tctj c`KwZK Lv` Drcv` b nvm cvq | GtZ gvQI Lv` Pwin` v c`Y nq bv | Avevi Kveb WvB-A` vBtWi` cwi gvY AZ` waK` epv` tctj cmbi A`Zji gvIv epv` cvq | dtj c`vqKfvte c`v`i c`KwZK Lv` `Zwi ntj I gvQI Lv` MbtYi c`YZv I Pwin` v nvm cvq |

gv` Kveb-WvB A` vBW mvariYfvte gvQ I vPswio Rtb` velv` bq | gvQ I vPswio vKQymgtqi Rb` 50-60 vgmW/vj Uvi chS-Kveb WvB-A` vBW mn` KitZ cvti | G M`v`mi velv` Zv cmbtZ `exfZ Aw` tRtbi NbtZi I ci vbf` Kti | Aw` tRtbi NbZi teuk` ntj Gi velv` Zv Kg nq | cmbtZ Kveb WvB-A` vBtWi` gvIv 12 vgmW/vj Uvti i teuk` nI qv DvPZ bq | cmbtZ Gi cwi gvY teuk` ntj gvQ I vPswio klm Kó ntq` v`K |

- Kveb WvB-A` vBW vbqšYi Dcvq
- gRj` NbZi I mvi c`qvM vbqšY Ges cKti i Mfxi Zv Kvgtq |
 - vbqvgZ ni iv tUtb |
 - cmbtZ 1.0 vbhZvsk nvti Pp c`qvM Kitj` c`q 1.5 vbhZvsk nvti Kveb WvB-A` vBW Ktj hvq

vCGBP

FYvZK nvBtWtRb Avqb NbtZi cwi gvcKB vCGBP | vCGBP msL`vgvb` v`v c`KvK Kiv nq | G cwi gvcK 0 t`K 14 chS`we`Z | vCGBP-Gi gva`tg cmbi A`Z I v`v`Zji cwi gvY vba`Y Kiv nq | Gt`jt 7 vbitc`v` gvB, 7 Gi Dcti (7-14) v`v`xq gvB Ges 7 Gi vbtP (7-0) A`v`x gvB vbt` R Kti |

dmdivm

c0kuzk cwbZ AwZ Af cwigY dmdivm_vfK| GB dmdivm dmtdtU i/cvšw Z nq| cwigZ dmtdtUi Dcw`wZtZ cPi cwigY DwMc -c#Ub RbWq| Rj R Drcv`tb dmdivm GKKfvte mefKaK „i“ZcY©fwgKv cvj b Kti_vfK|`Re c`v`P Awak`B dmdivmi mieivn evovq| cKti i cwbZ 0.2 wg.M0./wj Uvi dmdivm_vKv c0qvRb|

bvBtUtRb

bvBtUtRb Rj R DwMc` i tgšj c#Dcv`vb| Avngl mstk#Yi DcKiYi wntmte bvBtUtRb Rj R Drcv`tbi t#t# GK wefkI fwgKv cvj b Kti| c0kuz c0 E bvBtUtRb tKvb Rj vktqi bvBtUtRtbi Pwn`v tgUvtZ m#lg bq| cwbZ 0.2 wg.M0./wj Uvi bvBtUtRb gvIv gvQ PvtI i Rb` LpB Dc#hMx|

- wRcmvg c0qvM Kti tgUv cwbI #vi Zi evovbv hvq Gguc mvi c0qvM Kti cwbZ dmdivmi cwigY wKQlv evovbv hvq|
- BDwi qv mvi c0qvM Kti cwbZ bvBtUtRtbi Afve`# Kiv hvq|

A`vtgmbqv

GuU GKwU bvBtUtRbRvZ weiv³ M`vm| G M`vtmi Dcw`wZtZ gvQ I wPswi `vfweK ep# e`vnZ nq| cwbZ A`vtgmbqvi tenk gvIvi Dcw`wZtZ mg`-gvQ I wPswi giv thZ cvti| A`vtgmbqv cwbZ `#fvte_vKtZ cvti- AvqubZ A`vtgmbqv (NH₄⁺) I AvqubZ A`vtgmbqv (NH₃)| AvqubZ A`vtgmbqv AvqubZ A`vtgmbqvi tPtq tenk #wZKi| AvqubZ A`vtgmbqv gvQ I wPswi Rtb` weiv³| ZvB cwbZ Gi gvIv 0.025 wg.M0./wj Uvti i tenk nI qv DwPZ bq Ges 0.1 wgM0./wj Uvi AwZµg Kiv wec`RbK|

gv#Qi eR©, Afj³ Lv` , wefba#bvBtUtRbRvZ c`v`gZ k`vl jv cPtbi dtj cwbZ A`vtgmbqv M`vtmi m#o nq| G Qvov` wZ c`v`P #vni cKti i cwbZ A`vtgmbqv Ptj AvntZ cvti| ZvcgvIv Ges wGBP gvIv tenk_vKtj cwbZ AvqubZ A`vtgmbqv te#o hvq| mvaviYZt mU`vi w`tK hLb Kve# WvB-A` vBW Kg_vfK Ges wGBP gvIv tenk_vfK, ZLbB cwbZ AvqubZ A`vtgmbqv te#o hvq|

cKti A`vtgmbqv evotj gvQ I wPswi i³ Ges tckxZ A`vtgmbqvi gvIv te#o hvq| dtj gvQ I wPswi t`tni wGBPi gvIv Ktg hvq I ep# nvm cvq| G Ae`vq gvQ I wPswi Lv` M#Y eU Kti t`q Ges A`vfweKfvte Pj vPj Ki#Z_vfK|

AwZwi³ gRy` NbZi; cwi nvi Kti mWk NbZi; gvQ gRy` Ges mvi I Lv` c0qvM wqšY Kti A`vtgmbqv `tY c0Ztva Kiv hvq|

nvBtWtRb mvj dvBW

G M`vtmi 0.01-0.05 wgvj M0g/wj Uvi NbZi; Rj R c0Yxi gZi NUtZ cvti| cwbZ GB M`vtmi cwigY 0.002 wgvj M0g/wj Uvi Gi tenk_vKv tKvfvteB wbi v` bq| cwbZ nvBtWtRb mvj dvBtWi Dcw`wZ bv_vKvB DEg|

j eYv³ Zv

mvqvb` j eYv³ Zvq (3wcvU) Awakvsk KvcRvZxq gvQ I `K, gv, i, wks gvQ `vfweKfvte ep# cvq| `fy cwbZ `K, gv, i, wks gvQ PvtI i t#t# j eYv³ Zv tKvb mgm`v bq|

cwbI `RweK` Yv` Y

cKti i `vfweKfvte Rj R DwMc I c0Yx RbWq| wKQz wKQz Rj R DwMc I c0Yx AwZ #jz`q| GMtjv t`L#Z AYex#Y hš; `iKvi nq| #jz`q Rj R DwMc I c0Y gv#Qi c0kuzk Lv` Avevi wKQz wKQz Rj R DwMc I c0Y cKti i cwb t`tK c#o M#Y Kti `vfweK Drcv`bkxj Zv Kwgtq t`q| dtj gvQ PvtI weN#tU| wbgewY# Rj R DwMc I c0Y cKti Rtb`_vfK|

fimgvb DwMc

G aitbi Rj R DwMc` i cvZv cwbI Dcti fvtZ_vfK wKšYgj cwbI gta` Stj_vfK| thgb-KPwi cvbv, tUcv cvbv, #t# cvbv BZ`w`| G #tjv cKti mh#j vK c#e#k evavi m#o Kti Ges cKti e`eUz mvi n#Z c#o M#Y Kti cKti i Drcv`b #lgZv Kwgtq t`q| cKti G aitbi DwMc_vKtj tm` #tjv Dw#tq tdj #Z nte|

Wpš-DwMc

G aitbi Rj R DwMc` cwbI Zj t`tk_vfK| Giv cKti i Mfxti m#h# Avtjv c#e#k c0ZeUKZv m#o Kti| gv#Qi `vfweK Pj vPtj weN#Uvq| thgb-cvZv SuvS, KuUv SuvS, bvRvm BZ`w`|

wbM@bkxj Dw^{MC}

wKQz Rj R Dw^{MC} i gj cKti i wKbvi vq _v^tK Ges Dw^{MC} ,tj v cwbi Dcti evotZ _v^tK, G ,tj v wbM@bkxj Dw^{MC} | thgb-
Avowij , `j , Kj wgj Zv BZ'w` |

j Zv^tbv Dw^{MC}

wKQz Rj R Dw^{MC} i gj cKti i cwbtZ fvmgvb _v^tK Ges Dw^{MC} i kvLv cĕvLv ,tj v cwbi Dcti Qwotq _v^tK, G ,tj v
j Zv^tbv Dw^{MC} | h_v -fntj Áv, guj Á, tKki `vg BZ'w` |
c⁴Ub

cwbtZ th 7i^a 7i^a RxeKYv _v^tK Zv^tKB c⁴Ub ej v nq | c⁴Ub gv^tQi cĕKwZK Lv` | c⁴Ub tenk _v^tKv cKti i
Awak Drcv' bkxj Zv wbt' R Kti | c⁴Ub (ai tbi K) Dw^{MC} -c⁴Ub L) cŕY-c⁴Ub |

Dw^{MC} -c⁴Ub

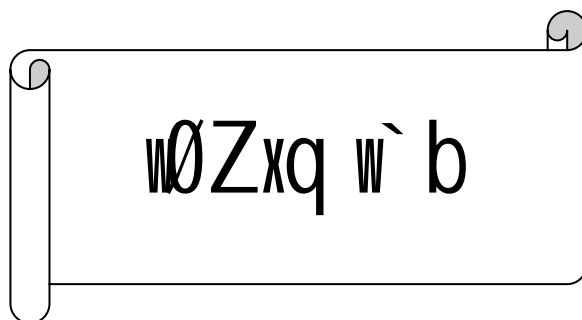
7i^a 7i^a Rj R Dw^{MC} B Dw^{MC} -c⁴Ub | G ,tj vi eY[©]meR | Dw^{MC} -c⁴Ub gv^tQi Lv` wKktj i cĕg ch^tqi cĕKwZK
Lv` | thgb-WwqvUg, fj f. , `úvB^tivMvBiv BZ'w` | G ,tj v^tK meR tkIjvl ej v nq | cKti Dw^{MC} -c⁴Ub AZ'wak
Rb^tij cwbi Dci Nb meR `t cto | G^tK eg-^tej | Gi^tc Ae^v gv^tQi Rb` 7i^aZKi | Nb meR `t cKti i cwbtZ
m^th[©] Av^tij v cĕ^tk evavi m^o Kti | cwi wgz Dw^{MC} -c⁴Ub cĕPh[©]ndj fv^te gvQ Pvl i Rb` AZ'vek'K |
cŕY-c⁴Ub

7i^a 7i^a Rj R cŕY^tK cŕY-c⁴Ub ej v nq | cŕY-c⁴Ub m^vavi YZt ev` vgx e^tY[©] ntq _v^tK | thgb- tWdwbqv, i wUt^tdi v,
gqbv BZ'w` | cŕY-c⁴Ub gv^tQi Lv` wKktj i wZxq ch^tqi cĕKwZK Lveri |

KxU-cZ½

cKti i Zj t' tk weirfb^ai tbi KxU-cZ½ evm Kti | G ,tj v gv^tQi Lv` Pt^ui Ašf[©] | h_v-weirfb^oij wif[©] | qvUvi weUj |

cwbi Dwj wZ , Yvej xmgⁿ h_vh_ gv^tvq wqš^y Kiv tMtj gvQ Pvl e'e'vcbr mnR nq | dtj Aí e^tq Kw[©]7Z Drcv' b
cVl qv hvq |



Awa`tekb cwi Kí bv

w` b t 02

mgq t 09.00-10.00

tgqv` Kvj t 60 wgvbU

<p>wk`ti vbvg t `K, wks l gv, i Pvtl `vb wbe`Pb l cK`tii `enkó` </p> <p>Afxó `j t grm` Awa` Bti KgRZ`e,` wk`ti vbvg t cpi vtj vPbv, cõZ`fve l Dc`vcbv</p> <p>j`f` t cõk`fYv_`i`K `K, wks l gv, i Pvtl i Rb` `vb wbe`Pb m`u`K`avi Yv t`qv l weifb`ai tbi cK`tii `enkó` m`u`K`Avb t`qv hv`Z cõk`fYv_`MY mW`K e`e`vcbv Rb` civgk`c`avb Ki`Z cvti </p> <p>D`f`k` t G Awa`tekb tk`tl cõk`pYv_`MY</p> <ul style="list-style-type: none"> • `K, wks l gv, i Pvtl mW`K fve `vb wbe`Pb Ki`Z cvite • weifb`ai tbi cK`ii e`e`vcbv Ki`Z cvite

wel qm`P	Av`fj vP` wel q	c`x`wZ	mgq
fugKv			5 wgvbU
	<ul style="list-style-type: none"> • `WZg • Pj wZ Awa`tekt`bi mvt`_ msthvM 	e ³ Zv	
wel qe`			50 wgvbU
	<ul style="list-style-type: none"> • Lvgvi `vc`fbi `vb wbe`Pb • weifb`ai tbi cK`tii cKvi`f` l Zvi e`e`vcbv 	e ³ Zv l cõk`Ei	
mvi -mst`f`c			5 wgvbU
	<ul style="list-style-type: none"> • cpi vtj vPbv • D`f`k` hvPvB • n`v`UAvDU weZiY • cieZr`Awa`tekt`bi mvt`_ msthvM 	e ³ Zv l cõk`Ei	
cõk`fY mrvqK mvgM` t tnvqvBU tevW`g`vK`f, BZ`w`			

ĀK, ũks | gv, i Pvl | Āvb ũbePb | cKti i Āenkó

GK mgq Avgt' i t' tk cKi ĀZwi Kiv ntZv Mn' jxi KvtR e'envt'ii Rb' | Kvtj i weZPb cieZxPZ G cKi ũj tZ KvcRvZxq gvtQi Pvl ver' ii" Kiv nq| eZgvtb gvQ Pvl m'cŕhvi tYi mvt_ mvt_ t' tk AvajbK emYmR"K grm" Lvgvi Mto DVtQ| G mKj Lvgvi m'vaviYZ Atc'ŕlvKZ ũbPz RvgtK Lvgvt'ii Rb' ũbePb Kiv ntq _vtK| emYmR"K fvt' ĀK, ũks | gv, i Pvl i Rb' Lvgvt' bvmŕi cKi, jvj b cKi | gRj cKti i cŕqvRb cto|

ĀK, ũks | gv, i Pvl | Āvb ũbePb i t'ŕt'Ā weteP' ũel q t

- Lvgvi cvKv iv' ũi KivQvKwQ ntj hveZxq Kvhŕi m'auv' tbi m'jeav nq Ges tmB mvt_ gvQ | Ab'vb" Drcv' b mvgMŕ evRvi RvZKi tYi m'jeav nq Ges ũeŕuq x gj' tekx cvl qv hvq|
- we' jZ wenb' Āvtb Lvgvi Āvcb bv KivB fvj, KviY ĀK, ũks | gv, i Pvl cwb cwi eZB Acwi nvh' ũel q; ũetkl Kti kxtZi mgq ZvcgvĀv 10 ũũMŕtmj ũmqvti ũtP bvtj %K gvQ gvi hvq, GB cwi w' ũZ t' tk ti nvB cvl qvi Rb' kxtZi mgq cŕZw' b tgnkb xviv cKti cwb mieivt'ni mŕhvm ivL tZ nte|
- th mg' -Gj vKvq Mvot'htM gvQ ŕtqi cŕũvB ev Lvgvt' i ũbR' ĀMvot' bvB (cvBKvi bvB) tmLv'tb Lvgvi Āvcb Kiti gvQ ũeŕuq Am'jeav nte| Āvbŕq evRvti ĀK, ũks | gv, i gvQ ũeŕuq Kti Lvgvi ũv j vFRbK ch'ŕq bv hvl qvi m'ŕebv _vtK|

gvQ Pvl i Rb' cKi cŕZ Kiv GKw' tK thgb ũi "ZcYĀb" w' tK tZgub e'vcK| cKi /w' ũNtZ tcvb gvQ gRj Kivi cŕeĀ GKRB grm" Pwli ũbKU ũetP t' q ũi "ZcYĀKvR nt"Q cKi ũv gvQ Pvl Dc'thvMx Kti cŕZ Kti t' bqv| cKi cŕZ cŕv x eũ avc ũenkó Kvh'ŕg| Gi cŕZ ũv avcB AvZ' ŕŕ Ges g'tbv'thvMi mvt_ m'auv' b Kiv GKRB grm" Pwli Rb' GKvš- Acwi nvh' Ab'w' tK GKRB gvQ Pwli gvQ Pvl i Āv' RZv cŕq c'jvcv' ũvB ũbF' Kti cKti tcvb gvQ Qvovi cŕeĀ we'Avbm'ŕZ Dcvtq cKi cŕZ Kivi lci| KviY cKi cŕZi DrKlZv Ges ũYMZgvt'bi DciB ũbF' Kite Aegy' tcvb gvQ KZfM tkl Aewa tetP t' tk Lvevi thvM' eo gvQ i fcvšw' Z nte| Ab'w' tK bvmŕi cKti Aegy' ti Yvtcvb Ges Aegy' tcvb t' tk tkl Aewa h'vŕt'g KZfM tcvb Ges P'v tcvb ũksev bj v nte Zvl ũbF' Kti gj' Zt cKi - w' ũNi cŕZ grm' we'Avb m'ŕZ e'e'vcbr DrKlZvi lci| m'Zivs th tKvb cKvi gvQ Pvl i tej vq cKi | Āvb ũbePb AZ'š- ũi "ZcYĀ"

ĀK, ũks | gv, i Pvl i cKti cKvi t'f' | Āenkó

mnr fvl vq cKi ej tZ Ggb GK ai tbi Rj vavi tK eŕvte hvi t

- Pvi w' tK Pvi ũv D'ŕzcvo AvtQ
- AvqZb (0.10-1.0) GKti nte
- hvi mvt_ Ab' tKvb cŕKwZK cwb i Drcm, thgb b' x-bvj v, Lvj -wej BZ'w' i mŕthvM _vKte bv
- Mfxi Zv 1.5 t' tk 2.0 ũgUvi nte
- cKti i cvto i Dci ũbvc'Ev teŕbx _vKte|

Av' k'cKti t Av' k'cKti i Ggb nte hvi t

- Dc'ti emYZ cKti i ũvej x' t' jv we' gvb _vKte
- hveZxq AvMvQv, Aew'AZ gvQ BZ'w' ntZ gv' nte
- cvto Ggb me ai tbi eo eo MvQcvj v _vKte bv th' t' jv tZ mŕh' Avtj v cKti i cwb tZ cŕetk evau t' te Ges MvtQi Siv cvZv cKti i cwb tZ cŕP' ũZ Kite
- Pb, mvi Ges cŕŕi mŕh' Avtj v tZ cwb | gŕũi Drcw' Kiv kv' emotq Avak gvQ Drcv' t' b m'ŕg nte

cKti i cKvi t

- bvmŕi cKi (Nursery Pond)/ AvZD cKi
- jvj b cKi (Rearing pond) /cŕZcvj b cKi / P'v cKj
- gRj cKi (Stocking pond) /eo gvtQi cKi (Grow out pond)|

bvmŕi cKti i Āenkó t

- AvKvti tQvU Ges AMfxi (AvqZb-10 t' tk 50 kZK Ges 1.0 t' tk 1.5 ũg. Mfxi)
- th tKvb mg'tq cwb i Kvtbv Ges cwb cŕt'fi Y'thvM'
- cŕKwZ tZ AvqZ t'ŕt' |
- Aí kŕ | A' ũeb'tqv'tM Avak mSL'K tcvb mg'tq aivi m'jeav _vKtZ nte
- G ai tbi cKti tKej gvĀ ti Y'avbx tcvb Drcv' b Kiv nq| KviY ti Yvtcvbi Lv' vevm, ũePiY, cKwZ, Lv' MŕY cŕŕuq BZ'w' eo gvQ t' tk Avj v' v ai tYi | eqm Ges t' tni MvB Ab'jvqx Gt' i tivM cŕZ t' va ŕlgZv Kg| Avak Mfxi cwb i ũtP t' tk Lv' mSMŕn A' ŕŕ Ges Af' bq|
- GLv'tb ĀK, ũks | gv, i gvtQi tcvb tK 25-30 w' b ivLv nq|

jvj b cKi (Rearing pond) / cZcvj b cKi / Piv cKi t

- AvKv i bvm i cKi t_ tK eo (1/2 t_ tK 1.0 GK i)
- bvm i cKi t_ tK Mfxi Zv tenk (1.5-2 ugUvi)
- AvqZKvi , miv eQi Kgct 0.75 ugUvi cwb _vtK
- th tKvb mg tq cwb i Kv tlv Ges cwb fiv hvq Ggb
- GLvtb wks l gv , i gvtQi tcvbtK 30-40 w` b ivLv nq | `K gvtQi tej vq jvj b cK i i cQvRb bvB |

cK i i AvKv Z l cKvZ wfbai tbi nl qvi Kvi Y t

- tcvbvgv `j ex fivte Pjv tdiv Ki tZ Af` -
- Lv` MhY Af` vm wfbai i nq
- wfbai tbi cZ tiva qgZv Zj bvgj K fivte ti Yfavb n tZ tenk nq
- `xN` b (3-4 gvm) cZcvj b Kiv

gRj cKi (Stocking pond) / eo gvtQi cKi N gRj cK i i wbgic`enkó` nte

- AvKv i Zj bvgj Kfivte eo (1.00 GK i t_ tK eo nte, mvariYZ `K, wks l gv , i gvtQi Rb` Lp eo cKi Lvgi gwj KMY K i bv)
- AvqZKvi , Mfxi Zv tenk (1.5-2 ugUvi)
- miv eQi Kgct 1.00 ugUvi cwb _vtK
- th tKvb mg tq cwb i Kv tlv Ges cwb c h t fiv hvq Ggb
- cK i i gwU Ges cwb Zj bvgj Kfivte Awak DeP Ges Drcw` Kv kw³ tenk nl qv ev`Abxq
- cK i i cvo Zj bvgj Kfivte DpZ Ges gReZ nl qv
- gvQ gvQ c j vcyi `+ w b` vm n t q Pj v t d i v K i v m`thvM AvtQ
- Lv` v f v m c j v c y i c_ K n t q h v l q v i d t j c Q v R b x q w e P i Y `+ _ v K v
- w e P i Y G e s L v` m s M` n i R b` c Q v R b x q A w a K R i q M v i c` c` Z v
- `xN` b a t i c Z c v j t b i ` f v w e K c w i t e k G e s m` t h v M m y e a v w e` g v b
- `K, wks l gv , i gvQ tK 120-130 w` b t i t L w e m q D c t h v M x K i v n q |

mvariYZt th me Kvi tY gj Z bvm i Ges Piv cK i ti Yfavb wKsev tcvb gvi hvq t

- A` q l Abwf` A e` e` vcbv Ges cwi Ph`
- cK i i gwU l cwb i t f S Z (Physical), i v m v q b K (Chemical) l `RweK (Biological) d` v e i m g` n i c i ` u i A m v g A m` Z v G e s m e u K A x b Z v
- ch`B cwi gvtY h t_ vch y³ DrKó gvtbi Lv` i Afive
- cQvR t b AwZwi³ Lv` m i e i v n
- i v` t m G e s q l w Z K i g v Q, K x U c Z 1/2 B Z` w` i D c w` w Z
- t i Y f a v b / t c v b v K g R i q M v q A w a K t c v b v g R j
- Z v c g v i v i D V v b v g v
- AwZwi³ R j R A v M v Q v i D c w` w Z
- w e t k l K i i v t Z i t e j v q, t g N v` Q b e w` t b (h w` w b g e v t c i m y o n q) G e s A w Z w i³ g t j a v t i e w o c v t Z i d t j `* Z c w b t Z ` e x f Z A w t R t b i c w i g v Y A v k 1/4 v R b K f i v t e n v m c v l q v
- t h t K v b t k l j v R v Z i q Z t Y i R b M Z w e l v³ Z v
- t i v M m y o K v i x R x e v Y y G e s c i R x e x i D c w` w Z
- ` t t Y i d t j c w b i ` f v w e K , Y v , Y b o n t q h v l q v B Z` w` |

`K, wks l gv , i P v t l i c K i e` e` vcbv t

mvariYZ `K, wks l gv , i P v t l i t` t` t` b v m i c K i , j v j b c K i l g R j c K i G K u l w b w` o m g q c h S - g v Q i v L v n q | g v Q A v n i t Y i c i c K i u l i w K o z u l u t g t u i c i c p i v q g v Q O v o v i e` e` v K i t Z n q | G t` t` t` c K i e` e` vcbv i K v R t K A v g i v `B f v t M f v M K i t Z c w i

1. ` b w` b K v R t c K i i ` f` M Z c w i t e k e v R i q i v L v G e s c K i c` w` U t b i A w a K` h v t Z b v N t U t m i t K j` i` i v L t Z n t e | A w Z w i³ L v g i t h b b v t` q v n q G e s R j R A v M v Q v l e b` R j R c O Y x i D c` e t_ t_ t_ K g v Q t K i` i` v K i t Z n t e |
2. **Seasonal** K v R t G i g t a` A v e n l q v c w i e Z B / F Z i c w i e Z t b i m v t_ c K i e` e` vcbv i w K o z K v R K i t Z n t Z c v t i ; t h g b N Z j v i ` R e c` v` c w i e Z B . c K i t g i v g t Z i K v R B Z` w` n t Z c v t i | t h m e ` v t b w W c w U D e l t a j b v B t m L v t b M` S K v t j 1 w U g v t d m j K i v B f v j |

Awatekb cwi Kí bv

w' b t 02

mgq t 10.00-11.00

tgqvr` Kvj t 60 wgnbU

wkři vbg	t %K, wks gV, i Pvl gwU cwbi řřŠZ, i wmvqbK ěRueK ,Yv, Y
Afřó `j	t wmbqi DcřRj v grm" Awdmvi / DcřRj v grm" Awdmvi / Lvgvi e'e'vcK
j ř"	t AskMřYKvi xMYřK gVQ Pvl gwU wewfbae, Yv, Y Ges řm, řj vi , i "Z; mřúřKřmg" K avi Yv ř` qv hřřZ Zvi v G wel řq AwřZ Ávb řvi v Pwl ř` i bZb cřKři i ěvb wbeřPb Ges BřZvgřa" LbbKZ cřKi mřWK e'e'vcbri Rb" h_vh_ ci v gkřcř vb Ki řZ cřři b
Dřř k"	t G Awatekb řkřl AskMřYKvi xMY- <ul style="list-style-type: none"> • gVQ Pvl gwU ,Yv, řYi , i "Z; ej řZ cřřeb • wewfbae i řbi gwU řkřl wbeřvm Ki řZ cřřeb • gwU řřŠZ i wmvqbK ,Yv, Y eYřv Ki řZ cřřeb • cřKři i cřZřeřki ci gwU wewfbae, Yv, řYi cřZřmřqv eYřv Ki řZ cřřeb • cřKi /Rj v křqi Drcv` bkřj Zřq Zřj vi Kř` vi cřřve e'vL`v Ki řZ cřřeb • gVQ Pvl DcřřvMř gwU mbr³ Ki řZ cřřeb

wel qmřP	Avřj vP" wel q	c xwZ	mgq
řřgKv			5 wgnbU
	<ul style="list-style-type: none"> • ěřMZ Rvbřřbv • ceřZřAwatekřbi cřři v řj vPbv • eZřvb Awatekřbi ci Avřj vKcvZ • eZřvb wel řqi Dřř k" eYřv • Dřř kři Y 	e ³ Zv cřkřEi	
wel qe`			50 wgnbU
	<ul style="list-style-type: none"> • gwU msÁv • cřKři i cřZřeřki ci gwU wewfbae, Yv, řYi cřZřmřqv • gwU Dcv` vb cřKři řř • gwU Dcv` vbmğř • gwU Dcv` vbmğřni Kvhřwi Zv • cřKi /Rj v křqi Drcv` bkřj Zřq Zřj vi Kř` vi cřřve 	e ³ Zv, wdeřPvU, ř` j xq KřR, cřkřEi	
mvi -mřřřc			5 wgnbU
	<ul style="list-style-type: none"> • cřři v řj vPbv • Dřř k" hvPvB • n`vEAvDU weZi Y • ci eZřAwatekřbi mřvZ mřřřvM 	e ³ Zv cřkřEi	
čikřjY mřvqK mřvğMř t wdeřPvU, gVkvř, řvřqvBU řevW, n`vEAvDU BZ w`			

gvQ PvfI gmlU i` Yv` Y

civ` ex c`toi th Ask t`tk Dw`c Lv` msMh Kti ZvB gmlU| cKti i` cwb msj Me15-20 tmig. gmlU cwb i` mvt` w`uqv- c`Zw`uqvq mivmwi Ask wbtq` _vtK| gmlU I` cwb i` Yv` t`Yi I`ciB gvtQi Drcv` b c`wKfvt` wbfP Kti| tKvb Rjvktqi cwb avit`Yi Avavi ntjv gmlU| fvj gmlUz` thgb fvj dmj nq` wK tZgwb fvj gmlU cKti i` gvtQi fvj Drcv` b cvl` qv m`e| Rjvktqi Drcv` b` gZv c`wKfvt` gmlU ai`bi I`ci wbfP Kti| DeP gmlUz` Lbb Kiv cKti mivariYfvte gvtQi Drcv` bl` fvj nq| DeP gmlU cKti gvtQi c`KuzK Lv` `Zwi i` Rb` Awak cwi gvtY c`qRbxq` c`p`i thvMvb t`q| mZivs gvQ PvfI gmlU i` Yv` t`Yi i`Zi Acwi mxg|

gvQ PvfI i` t`q`i gmlU I` cwb i` fSZ-ivm`vqwbK` Yv` Y Ab`Zg fvgKv` cvj b Kti` _vtK| gvQ Zvi R`xeb avit`Yi me KivR cKti -Rjvktqi cwb i` gta`B m`ubekti` _vtK| Gme Kvh` m`p`fvte m`uv` t`bi Rb` cKti i` ev Rj R` cwi t`etki` w`wfb`e` Yvej x` h`_vh`_ gv`vq` w`bq`S`Y I` e`e`v`cbv` Kiv` c`qRb|

tKvb Rjvktqi cwb avit`Yi Avavi ntjv gmlU| gmlUz` w`e` `gvb` w`wfb`e`Drcv` vb cwb i` fSZ` ivm`vqwbK` Yv` Y w`bq`S`Y Kti| A`_f` tKvb Rjvktqi Drcv` b` gZv c`wKfvt` H` Rjvktqi gmlU ai`bi I`ci wbfP Kti| `e`Aw`bK` c`x`w`z`z` j`v`f`RbKfvt` gvQ PvfI i` Rb` c`qRb` t`f`K`i` Rj R` cwi t`ek` Ges` cwb`z` c`KuzK Lv` `i` cwi`g`Z` c`Ph`Zv| cwb i` c`wK Drcv` b` gZv c`avz` gmlU i` fSZ` ivm`vqwbK` Yv` Y Z`_v` gmlU i` DeP`Zvi I`ci wbfP Kti|

- cKti i` gmlU i` Yv` Y h`_vh`_ gv`vi` bv` ntj` w`bq`e`f`c` c`Zw`uqv` t` Lv` w` t`Z` cvti` t`
- gvtQi` c`KuzK Lv` ` h`_o` cwi` gvtY` Drcw` Z` nte` bv`
 - ewni` t`tk` t` qv` m`u`i`K` Lv` `i` AcPq` nte`
 - gvtQi` e`v`x` Avkvbj`f`c` nte` bv`
 - gvQ` tivM` evj` vB-G` Av`v`š`-nte` I` gvi`v` th`z` cvti`
 - gvtQi` Drcv` b` Kg` nte`|

gmlU i` Drcv` vb I` Gi` c`Kvi` t`f`

gmlU i` Drcv` vb

gmlU ntjv` f`e`toi` Dcwi` Z`tj` i` big` L`ubR` Ges` `Re` Drcv` v`bi` w`g`k`Y` hv` Dw`c` `i` e`v`x`i` Rb` c`KuzK` gva`g` w`nt`m`te` KivR` Kti` | gmlU` c`av`z`t` 4` w` c`av`b` Drcv` vb` mg`š`t`q` M`w`Z` | G`_tj` v` w`b`t`P` D`w`j` w`e`Z` ntjv` t`

- 1) L`ubR` c`v`_` - 45%
- 2) `Re` c`v`_` - 5%
- 3) e`v`q`y` - 25 %
- 4) c`wb` - 25%

mZivs gmlU` KivB,` Zij` Ges` M`v`mxq` GB` w`Zb` ai`bi` c`v`t`_`P` mg`š`t`q` M`w`Z` | w`b`t`P` gmlU i` w`wfb`e`Drcv` v`bi` m`u`i`K` `m`si` `f`B` Av`tj` v`Pbv` Kiv` ntjv` t`

L`ubR` c`v`_`

f`-Z`K` c`l`tg` w`k`j`v` Ø`v`iv` M`w`Z` w`j` | c`ti` Zv` w`k`j`v` `f`l`q` c`l`u`qv`q` t`f`t`½` t`OvU` L`t`E` ev` GK`tk` i`f`c`v`š`w`i` Z` nq| gmlU i` GB` Ask` e`w`j` ,` c`w`j` I` K`_`Ø` KYv` Ø`v`iv` M`w`Z` | w`k`j`v` `f`l`q` c`l`u`qv`i` d`tj` Dc`ti`v`³` KYv` I` AZ`v`ek`K`x`q` Lv` `v`c`v` vb` th`gb`-` b`v`B`t`U`i`t`R`b,` d`m`d`i`v`m,` c`U`w`k`q`v`g,` K`i`j` w`k`q`v`g` Ges` Ab`v`b` `c`p`o` Drcv` vb` gmlUz` g`j`b` nq| gmlUz` L`ub`R`i` cwi` g`v`Y` ntjv` 45%|

`Re` c`v`_`

gmlUz` 1-2% `Re` c`v`_` _vtK` Z`te` w`ng` A`A`tj` i` gmlU` 2-5% `Re` c`v`_` `avi`Y` Kti` | GB` me` `Re` c`v`_` `Dw`c` I` c`w`Y`i` A`en`k`o`v`sk` I` g`j` g`f` ntj`Z` gmlUz` Av`tm` | `Re` c`v`_` gmlU i` Av`e`x`K`i`Y` c`v`_` w`nt`m`te` e`e`u`Z` nq| gmlUz` `Re` c`v`_` `cwi` g`v`Y` L`p` Kg` ntj` I` G`w` e`v`c`K`fvt`e` gmlU i` Yvej` x` w`bq`S`Y` Kti` _vtK|

`Re` c`v`_` `w`b`g`ij` w`L`Z` i`Z`c`Y` `f`v`g`Kv` cvj` b` Kti` _vtK`-

1. mg`-`c`p`o` Drcv` v`bi` `v`g`Ni` w`nt`m`te` KivR` Kti`
2. gmlU i` fSZ,` ivm`vqwbK` I` `Re` Yvej` x` D`b`z` Kti`
3. f`v`g` `f`l`q` t`i`v`a` Kti`
4. c`wb` av`i`Y` `f`l`g`Zv` e`v`x` Kti`

4	iscj -w bvrctj i wKq`sk, gwBKMA, MbvUv, cwi`cj l Uv/zBtj i wKq`sk	ewj l ewj hy ³ cij	wKQlv A ³ q	ami	cKwZK Drcv`bkj Zv Zj bvgj K Kg
5	b`x mwbkU`AAj	ewj hy ³ cij	A ³ q/vi xq/bi tc ¶	ami t`tk Kvj tP ami	cKwZK Drcv`bkj Zv Zj bvgj K Kg
6	DcKj xq AAj mgn	cij l Kv vi fM teik	A ³ q	Kvtj v ev QvB is	cKwZK Drcv`bkj Zv Kg

gmlU tFŠZ-i vmvqwbK _Yv_Y

th AĀtj i gmlU DeP tm`vfb Lbb Kiv cKai l mvavi Yfvte DeP ntq`vfk Ges tm AĀtj i cKti gvtQi Drcv`bl fij nq| DeP gmlU cwb tZ gvtQi cKwZK Lv`i thvMvb t`q Ges cwb`ty tivta fvgKv ivfL| mvavi Yfvte gmlU 4 cKvti i ntq`vfk K) GtUj gmlU, 2) tetj gmlU, M) jvj gmlU Ges N) t`vAvk gmlU| t`vAvk gmlU cKti gvQ Pvtl i Rb` meĀaK Dc thvMx| tetj gmlU cwb avi Y¶lgZv LpB Kg Ges jvj gmlU cKti cwb cĀq memgq tNvj v`vfk| GRb` tetj gmlU l jvj gmlU tZ Lbb Kiv cKai gvQ Pvtj i Rb` ZZUv Dc thvMx nq bv| wvrfbreaitbi cĀq at i vLv l Av`vb cĀvfb t`vAvk gmlU DĒg|

- t`vAvk gmlU gvQ Pvtl i Rb` DĒg
- GtUj gmlU gvQ Pvtl i Rb` Kg Dc thvMx
- tetj gmlU Pvl Pvtl i Dc thvMx bq
- jvj gmlU tZ gvQPvl e`qeuj |

gvQ Pvtl i Rb` ex Rjvktqi cwb i Dc thvMxZv gmlU KtqKw Dcv`vbi gvtbi l ci wv¶i Kti| h_v- w,GBP, dmdivm, bvBtU tRb, KveB-WtB A- vBW, `Re c`v`BZ`w` | wbtP Gme m³utK³ms t¶tc Avtj vPbv Kiv ntj v t

wcGBP

gmlU wcGBP (p^H) 6.5-8.0 Gi gta` ntj Zv gvQ Pvtl i Rb` DĒg| AbKj wcGBP gvĭvq dmdivtmi thvMvb ep^x cvq Ges Avfv gwbcv l bvBtU tRb NwUZ AYRxe AwaK Kg¶lg nq| wc GBP 6.0-Gi wbtP ntj gmlU AwaK A³q nq Ges cwb tZ ¶wZKi tgšuj K c`vt`P Dcw`wZ t`Lv t`q| Avevi wcGBP-Gi gvĭv 9.0 Gi teik ntj AYRxe tMvōx wvō`Ē nq l dmdivtmi mieivn nwm cvq| GtZ Dw^mc c`wstbi Drcv`b Lp Ktg hvq|

dmdivm

dmdivm gmlU tZ K`vj wmqv, Avqi Y l G`vj wgvqvgti dmtdu wntmte Ae`vb Kti| gmlU tZ cwi wgz `Re c`vt`P Dcw`wZB mnRctc` dmdivtmi mieivn Ae`vNz ivfL| dmdivtmi cĀPhZv cKti i cĀwgK Drcv`bkj Zv mi vmi wvqšY Kti| dmdivm meR tkljvi esk ep^xtZ mmpqfvte AskMōY Kti| dtj AwaK cwi gvtY Dw^mc -c`wstbi Drcbō nq| gvQ Pvtl i Rb` cĀZ 100 Mōg gmlU tZ 10-15 wgvj Mōg nvti mnRctc` dmtdu`vKv DwPZ|

bvBtU tRb

evqgĒtj i bvBtU tRbB gmlU bvBtU tRtbi cĀvb Drm| cĀZ 100 Mōg gmlU tZ 8-10 wgvj Mōg nvti mnRctc` bvBtU tRb`vKv`i Kvi| bvBtU tRb Dw^mc tK Nb meR ivfL| cwi wgz bvBtU tRb Dcw`wZ tZ Dw^mc -c`wstbi Lv`Zwi i cĀwq mōfvte m³uv`Z nq Ges ep^x Zj wšZ nq| dtj AwaK cwi gvtY Dw^mc -c`wstbi Drcbōnq l gvtQi Drcv`b ep^x cvq|

`Re c`v`^o

gmlU tZ wv`gvb `Re c`v`^oh tKvb Drcv`b cĀwqvq GKw Acwi nvh`Dcv`vb| `Re c`v`^ocKti i Zj vq gmlU tK mRxe l mmpq ivfL Ges cwb Pqv tbn eU Kti gmlU cwb avi Y¶lgZv ep^x Kti| `Re c`v`^odmdivm l bvBtU tRtbi cĀvb Drm| Rj R cwi tetk `Re c`v`^oAvenl qv t`tk mi vmi bvBtU tRb avi Y Kti |

mvi wY- t wefbcgmlU i`enkó` I cĕve wbcšĕYi e`e`v

gmlU cĕvi	we`wZ	`enkó`	cĕve	ĕwzi cĕve wbcšĕYi m`e`e`v
Mo ev j vj gmlU AĀj	XvKv tRj vi DEivsk, Uvs/2vBj tRj vi ceĕsk, gqgbwmsn tRj vi `wĕY-cwĕgusk, tbcvLvj x-Kugj v PUMĕg tRj vi Gj vKv wĕtkl	AwZ ĕĕi`ev mĕ KYvi mgšĕq MwZ, eYĕj vj tP, tj vnv i cwi gvY tĕwk, `Re c`v` ^ĕ bvBĕUĕRb, dmdim, Pb cĕwZ Kg, wGBP gvb 5.5-6.0	cwb tNvj vU nĕZ cvĕi gvĕi dj Kv I tPĕL Nv nĕZ cvĕi cĕKwZK Lv`KYv `Zwi evavMĕ`nq KvZj v, wnj fvi Kvc`i`B, bvBĕj wUKv, ivRĕw PĕtI i DĕthvMx	tNvj vZj`ĕ KiĕZ cĕZ kZĕK Pb 1.5-2.0 tKwR wRcmvg 1.0-2.0 tKwR A_ev wĕUwKwi 0.5-0.6 tKwR cĕqvm Kiv thĕZ cvĕi Zj t`ĕk wĕPi YKvi x gvQ Kg msL`K gRĕ Kiv DwPZ tcmĕ`Lvqĕi i eR`e`envi Kĕi cĕKwZK Drcv`b ĕĕgZv evovĕbv hvq
eĕi>`a	w`bvRĕj tRj vi `wĕYvusk, e`ov tRj vi cwĕgusk, ivRkvnx, bvĕUvi, bl Mw, PwcvBvevMĀ	GĕUj cĕKwzi, njĕ is, tj vnv I G`vj wĕwqvtgi fvm tĕwk bvBĕUĕRb, dmdim I K`vj wmqvtgi Afve AvĕQ wGBP gvb 6.0-6.5	`xN`Liqv cĕĕi`i`wĕtq A_ev AZ`wĕk kĕZ cwb kĕZj nĕq gvĕi Drcv`b e`vZ nq tgšmgx e`ĕY cwb tNvj v nq e`e`vcbv mvĕĕĕ th tKvb gvQ Pvl Kiv hvq	cĕĕi`wKQz fvmgvb AvMvQv tiĕL Zvc t`ĕk gvQ i ĕĕv Kiv hvh wĕKĕ Dĕtm cwb gRĕ Kĕi Livi cĕZwĕq tiva Kiv qvq Zxe`kĕZ mvi I Lv` cĕqvm mxgZ ev eU ivLĕZ nĕ
e`ĕĕĕi cĕj wj K AĀj	enĕi gqgbwmsn (MvĀj e`ZxZ), Rvgj cĕj, tki cĕj, XvKv, bvi vqYMA, gYMA, eĕ`Yevoxqv, Kugj v Pw`cĕj tbcvLvj x, tdbx, PĕMĕg I wĕtj U tRj vi mgZj Gj vKv	cĕj hĕĕ, ami t`ĕK Mvp ami is, GĕUj ev t`v-Avk cĕKwzi Deĕ gmlU Pb ev K`vj wmqvtgi fvm Kg wGBP gvb 5.5-6.8	Avenvl qv mvi eQi gvĕi AbKĕj `vĕK tKv_vl tKv_vl Wĕš-Rj R AvMvQv Pvl ĕwZM`-nq, th tKvb cĕRwzi gvQ Pvl Kivi DĕthvMx	2-3 eQĕi Gĕvi cĕĕi`i`wĕtq `Zwi Kiv DwPZ wbcwqZ Pb e`envi KiĕZ nĕ
wZ`vi cĕj gmlU AĀj	w`bvRĕj tRj vi DEivsk, VvKi Mw i scĕj, KwoMĕg, MvBevUv, bxj dvgyi x, e`ov tRj vi ceĕĀj, wmi vRMĀ tRj vi AwKvsk AĀj	tĕtj t`v-Avk ev ewj gq cĕj tZ MwZ `Re c`v` ^ĕ Pĕbi fvm Kg wGBP gvb 6.0-6.5	cwb avi YĕĕgZv mxgZ cwi tĕk th tKvb gvQ PĕtI i DĕthvMx n`vPwi ev bvmĕi Ges wPsw Pvl I j vFRbK	Pb I `Re mvi wbcwqZ e`envi KiĕZ nĕ cĕĕi`i`wĕtq thĕZ cvĕi Ggb AĀtj `ĕ Pvl tgqv`x gvQ Pvl Kiv DwPZ
Mĕvi cĕj gmlU AĀj	gwbKMA, dmi`cĕj, kwi qZcĕj, gv`vi xcĕj tMvcj MA, hĕkvi gv`ov, bovBj, PwvWvs/2v, tgĕni cĕj, Kwoqv, wSbvB`n, Lj bv mvZĕxi v, evĕMi nvU, bevMA, bvĕUvi I cvebv tRj v	GĕUj, t`v-Avk t`ĕK tĕtj t`vNAvk cĕKwzi Deĕ gmlU; Pb ev K`vj wmqv I `Re c`v` ^ĕ mgx wGBP gvb 7.0-7.5	cwb avi YĕĕgZv tĕk cwi tĕk th tKvb gvQ PĕtI i DĕthvMx n`vPwi ev bvmĕi I wPsw Pvl j vFRbK	cĕĕi`i`wĕtq hvĕ qvi AvksKvq cĕĕi`Mfxi Kiv DwPZ bq cĕĕi`i`Zj t`ĕki ewj i Dci cĕj hĕĕ GĕUj gmlU wĕwĕtq fĕj fĕtĕ wĕwĕtq k ³ Kĕi w`ĕq cwb avi YĕĕgZv evovĕbv hvq cĕqvrĕb ivRĕw, bvBĕj wUKv cĕwZ gvQ Pvl Kiv hvq

Awa`tekb cwi Kí bv

w` b t 02

mgq t 11.15-12.15

tgqv` Kij t 60 w`gubU

wk`i v bvg	t %K, wks l gv, i Pvl cKí ms`vi, cwi`tek Dbq b l w b i v cÉv teóbx `vcb
Af`xó `j	t grm` Awa`Bti i KgRZP Ges Ab`vb` m`c`hvi Y KgxP
j`P`	t AskMhYKvi xMYtK gvQ Pvl cKí ms`vi l w b i v cÉv teóbx `Zixi `i`Zi m`ú`K`mg`K avi Yv t`qv Ges AwRZ Ávb Øviv mWKFvte Rj vkq ms`vi l w b i v cÉv teóbx i cØqvRbxqZv Pwl t`i h_vh_civgk`cØvb Kitz cvt`ib
Dt`i k`	t G Awa`tekb tk`l cØk`y Yv`MY- <ul style="list-style-type: none"> • gvQ Pvl cKí ms`v`ti i `i`Ziej tZ cvt`eb • w b i v cÉv teóbx i `i`Ziej tZ cvt`eb l cKt`i i cvto mWk w b q t g teóbx `vcb Kitz cvt`eb

wel qm`P	Avtj vP` wel q	cØk`P Y tKŠkj	mgq
f`wgKv			3 w`gubU
	<ul style="list-style-type: none"> • `MZ Rvbt`bv • ce`Zi`Awa`tekt`bi cpi vtj vPbv • eZ`gvb Awa`tekt`bi l ci Avtj vKcvZ • eZ`gvb wel t`qi Dt`i k` • Awa`tekb m`ú`K`DØk`Ki Y 	e ³ Zv l cØk`uÉi	
wel qe`´			52 w`gubU
	<ul style="list-style-type: none"> • cKí ms`v`ti i `i`Zi • w b i v cÉv te`-`bxi cØqvRbxqZv • w b i v cÉv teóbx `Zixi w b q g 	e ³ Zv, wdePvU, `j xq KvR, cØk`uÉi	
mvi -mst`Pc			5 w`gubU
	<ul style="list-style-type: none"> • cpi vtj vPbv • Dt`i k` hvPvB • n`vÉAvDU weZi Y • cieZi`Awa`tekt`bi m`nZ mst`hvM 	e ³ Zv, cØk`uÉi l DcKi Y cØ kØ	
cØk`P Y mnvqK mvgMØ t wdePvU, gvKvP, tniqvBU teW, n`vÉAvDU BZ`w`			

ĩK, ŭks I gv, i Pvĭl cĕĭi ms̄vi I ŭbivcĒv teóbx ĩvcb

cĕĭi ms̄vi t

cĕĭ ZKwj b mgĭq cĕĭi ms̄vi Kiv AZŠ-Ri'wi | cĕĭi ms̄vi Kivi tĕĭĭĭ ŭbæwj ŭLZ KvR, tĭv KiĭZ nĕ|

- cvo tĕivĕZ |
- cvĭoi Xvj tĕivĕZ
- Zjvi AwZwi³ I cPv Kv`v Acmvi Y
- Zjĭ`k mgvbKi Y
- cĕĭi i cŭbtZ Qvqv mĭóKvi x cvĭoi eo MvĭQi Wvj cvj v tĕĭU tdj v I cĕĭi cvĭoi tSvc Svo cwi[®]vi Kiv |

cvo tĕivĕZ

- cĕĭi i cvo Ggb DPzKiĭZ nĕ hvĭZ ĩfvieK el ĕq Wĕe bv hvq |
- cvo fvĭzv ŭKĭj k³ Kĭi tetā ŭĭZ nĕ hvĭZ evBĭi i ivĕĭm I AewĀZ gvQ cĕĭi cĕek KiĭZ bv cvĭi |
- cvĭoi MZ[®]ŭKĭj Zv fĭi ŭĭZ nĕ hvĭZ ewntĭi cŭb PBĭq cvo tĕĭĭĭ tdj ĭZ bv cvĭi |

cvĭoi Xvj tĕivĕZ

- cĕĭi cvĭoi Xvj fvĭzv ŭKĭj ev Xvj MZ[®]ŭKĭj Zv tĕivĕZ KiĭZ nĕ| Zvntĭ cvo mnĭR fvĭĭe bv |
- cvĭoi Xvj 1:2 AbĕcvĭZ ivLv`i Kvi | GĭZ cvo fvĭĭe bv, Rvj Uvbv mnR nĕ Ges mĭWKfvĕe gvQ Avni Y Kiv hvĭe |
- mĕh[®] Avĭj v KvĕRi fvĕe cĕĭi i cŭbtZ coĭj cĕĕĭZK Lv` Drcv`ĭb mnvqK nĕ|

Zj vq AwZwi³ I cPv Kv`v Acmvi Y

cĕĭi i Zjvi 4-6 BwĀi tenk Kv`v ŭKĭj Zv Zĭj tdj ĭZ nĕ| Zj vq AwZwi³ ĩRe c`ĕ[®] ŭKĭj t

- ŭel v³ M'vm mĭó nĭZ cvĭi |
- mnĭR ni i v Uvbv hvq bv |
- Aw ĭRĭbi Afve nĭZ cvĭi |

cvĭoi eo MvĭQi Wvj cvj v QvUvBK i Y

cĕĭi i cŭbtZ Qvqv mĭóKvi x eo MvĭQi Wvj cvj v tĕĭU tdj ĭZ nĕ| GĭZ mĕh[®] Avĭj v mnĭR I KvĕRi fvĕe cĕĭi i cŭbtZ coĭe hv cĕĭi i cĕĕĭZK Lv` Drcv`ĭb mnvqK nĕ|

cĕĭi i cvĭoi tSvcSvo cwi[®]vi Ki Y

- cĕĭi cvĭoi tSvcSvo tĕĭU cwi[®]vi KiĭZ nĕ| GĭZ grm`fĕ cĕĕĭY thLvĭb tmLvĭb j ĭKĭq ŭKĭZ cvĭe bv |
- cĕĭi tĕĭK cĕĕ tĕlvY Kĭi cĕĭi i cĕĕĭK Drcv` bĕxj Zvq e'vNvZ mĭó KiĭZ cvĭe bv |

Rj R AvMvQv`gb

cĕĭi i cŭbtZ ŭe`gvb ŭewfbæaiĭYi Rj R Dw^mc /AvMvQv hviv cĕĕĭĭ ev cĭivĕĭfvĕe gvQ I tcvbv Drcv`bĭK ĕĕĕZMĕ' Kĭi Zvĭ`ĭĭ Rj R AvMvQv eĭj | cĕĭi maviYZt 4 aiĭYi Rj R AvMvQv I tĕĭj v t`Lv hvq | thgb t (1) fvĕgvb (2) j Zvĭbv (3) ŭbgĭĭZ (4) ŭbMĕĭbĕxj

Rj R AvMvQvi ĕĕĕZKi ŭ Kmgĕ

- Giv cĕĭi i gwĭ I cŭb tĕĭK cĕĕ MĕY Kĭi | dĭj cĕĭi i cĕĕĭK Drcv` bĕxj Zv Kĭg hvq |
- cŭbtZ mĕĕĭj vK cĕĕĕk evav mĭó Kĭi dĭj mvĭj vKmsĭkĕY evavMĕ' nq |
- tcvbvi ĩfvieK Pj vPĭj e'vNvZ NUvq
- bvmĕi cĕĭi mnĭR ni i v Uvbv, Rvj Uvbv Amĕeav nq |

Rj R AvMvQv ŭbqšY c×ĭZ

(1) KwqK Kĭg c×ĭZ (2) ĩRĭeK c×ĭZ (3) mvi cĕĕqM c×ĭZ (4) i vĕivqĕbK c×ĭZ |

ivĕĕm I AewĀZ gvQ`ĭxKi Y

ivĕĕm gvQ t tĕvqj, MRvi, tĕvj, ŭPZj, dĭj, Kvĕĭj v, BZ`ŭĭ`

¶WZKi cĤve

- iv¶m gvQ mi vmi tcvb tLq tdtj, thgb- iv¶m gvQ 2 tKwR eo ntZ cġ 10-12 tKwR Ab` gvQ tcvb Lvq|
- AewĀZ gvQ tcvbvi Lv` bÓ Kti, thgb 1 tKwR AewĀZ gvQ 10-12 tKwR eo gvQ i Lv` fV M emvq|
- em`vb l` Av` tRb vbtq cġZthwMZv Kti |

`gb c×WZ

- 1) bvmġi cKj i`Ktq
 - 2) vcl cġqM Kti |
- 1) cKi i`Ktq t cKi i`Ktq iv¶m l` AewĀZ gvQ `i Kiv metPtq fvj | GtZ cKti i Drcv` b ¶lgZv teto hvq|
 - 2) vcl cġqM t cKi i`Ktq bv tMj vcl cġqM Kti iv¶m l` AewĀZ gvQ `i Kiv hvq|
 - tivtUbb cvDWvi t 9.1 kw³ ntj 18-20 Mġg/ kZvsk 1 dU Mfxi cmbi Rb`|
vcl v³Zvi tgqv` Kvj - 7 w` b
 - ZvgvKi ov t 0.8-1.6 tKwR/kZvsk 1 dU Mfxi cmbi Rb`|
vcl v³Zvi tgqv` Kvj - 10 w` b
 - Pv exR`Lj t 145-150 Mġg/kZvsk 1 dU cmbi Mfxi Rb`|
vcl v³Zvi tgqv` Kvj - 3w` b|

cmbi vcl v³Zv cix¶v

cKti GKwU ncv Uvġtq Zvi gta` Aí msL`K th tKv gvQ i tcvYv tQto 12 NvUv ch¶¶Y Ki tZ nte| hw` AnaKvsk ti Yy(70%) tetP` v`K Zvntj cmbtZ vcl v³Zv tB eStZ nte|

Pb cġqM

Pb K`vj vqvq mg× A%Re thSM ev GvW gva`gtK ¶vi xq ev vbi t¶¶ Kti |

Pb cġqvMi cġqvRbxZv

- gvU l` cmbi P^H gvQ Pvl i DcthvMx gvĤvq i vL|
- cmbtZ ¶vi tZi cwi gvB 20 vgvj Mġg/ vj t Gi tek ivL tZ mrvqZv Kti |
- mvti i KvhRvvi Zv ev× Kti |
- cġZKvuj b Pb cġqvMi gva`tg cKi ci Rvex l` tivM RvexYvgj³ nq |
- Pti K`vj vqvq vbtRB GKwU i "ZcYcYó Dcv`vb|
- Kv`vq Avex dmdim gj³ Kti |
- cmbi tNvj vZi` t Kti |

Pb cġqvMi gvĤv t cġZ kZvstK 1-2 tKwR|

cKi cġZKvuj b mvi cġqM

tcvbi cġKwZK Lvvi ntj v cġvZt Dw^m cġUv l` cġx cġUv| cġx cġUv Gi Drcv` b vbf¶ Kti Dw^m cġUvbi cġPhZvi Dci| Avi Dw^m cġUv Zvt` i evPvi Rb` `exfZ cġi l` ci vbf¶Kxj | A_¶ cġKwZK Lv` %Zvi i DtĤ tKb cKti mvi cġqM Kiv ntq v`K| mavi YZ vks l` gv, i Pvl tcv Qvovi c¶¶ evi mvi cġqM Kiv ntq v`K|

mvi `B cKvi t (K) %Re mvi, (2) A%Re mvi |

mvi cġqvMi gvĤv

µvqK bs	mvti i bvg	cġqMgvĤv/kZvsk
1	tMvei A_ev	5-7 tKwR
	nvm-gj Mxi veóv A_ev	3-5 tKwR
	Kgtcró	8-10 tKwR
2	BDvi qv	150-200 Mġg
3	vJGmıc	75-100 Mġg

c0KwZK Lv`" ch'eY

uks l gv, i gvQI tcvbv gRf`i c'eZv`i Dc'huMx Lv`" ^Zwi Kfi vbtZ nte| ZvB gRf`i c'e^c0KwZK Lv`" cixY Kiv c0qvRb| Zte ^K gvQ Pvl i tej vq mvi c0qM l c0KwZK Lv`" ch'eL i Yi c0qvRb bvB|

c0KwZK Lv`" cixYvi c0qvRbxqZv

- cwbZ ch'p c0KwZK Lvevi AvfQ wK bv Zv Rv bv
- cKfi i cwi tek ti YyQvovi Dc'huMx wKbv Zv Rv bv
- cKfi Avi l mvi c0qM Ki tZ nte wKbv Zv Rv bv|

c0KwZK Lv`" cixYvi cxwZ

c0KwZK Lv`" cixYvi cxwZ 3 wJ, h_v t

(1) tmwKw' c'cxwZ, (2) MvgQv Mm cxwZ, (3) nvZ cxwZ|

wbivcEv teobx %Zix t

cKi c0wZi jwZcY^KvR ntjv wbivcEv teobx ^Zix Kiv ev tNi t`qv| cKfi i Pvi cvto el'Kv t j cwb i t j t f t j i AŠ-Z 2dU Dc'i k³ Kfi Aek'B tNi w tZ nte| tNi bv w t j ewoi mgq Kvb tKv w t q cwi agb Kfi ^K gvQ cvo tetq cKfi i evBfi P t j t h t Z cvfi | mvaviYZ ^K gvQ cwb tZ 1.5 dU chS-jvd w tZ cvfi | wKs' i K t b v t v t b j v d w t Z cvfi bv| ZvB 1 dU t t K 1.5 dU DPz chS-tNi w t j l P t j | Zte mvc e'v0 cfwZ k l "i nvZ t t K i Yvi Rb" tNi Kgct q 2.5 DPz t`qv evAbxq GLv t b c'kaRvMv t f v i e K t h, wK w t q tNi ^Zix Ki t Z nte| wJb, Nb d'v t m i b v B j b R v j ev ev t k i evbv w t q tNi ^Zix Kiv hvq| tKm K'v j P v t i i c w - K t b U G i t q t t t e k K v h R i x | t v q x f v t e K i t Z P v B t j B t U i N v L v b w t q l t N i t`q v h v q | t N i t`q v i m g q m Z R Z v i m v t _ j q i v t Z n t e t h b b x t P i A s t k t K v b d v K v b v v t K G e s t N i t h b g R e z l t U K m B n q | t N i t`q v i e'v c v t i t K v b M w d j w Z K i t j c i e Z x c h t q P w l P i g f v t e A w _ R q w Z i m a q L b n q |

tNi ^Zixi mvgM t bvBj tbi Rvj , ev t k i L y U / M v t Q i W t j i L y U , m y Z w j , t K v` v j B Z` w`

teobx ^Zix t cKi cvtoi Dci PZP tK 6 BwA Mfxi Kfi cwi Lv Lbb Ki t Z nte| cti GB MtZP gta" 8-10 dU ci ev t k i L y U / M v t Q i W j k³ Kfi c t Z w t Z nte| Gici bvBj tbi t b U x v i v c K i c v t o i P Z P t K w N t i t d j t Z nte| cwi Lvi w f Z i t b U W y k t q c w i L v L t b i g w U w t q t b U t K k³ Kfi g w U i m s t 1/2 A v U t K w t Z nte| w K Q j K Q z L v g v t l K g `v t g i w J b w t q l t e o b x ^ Z i x K i t Z t` L v t M t Q | w b g g v t b i w J b 3 t t K 4 e r m i e`e n v i K i v h v q |

teobx ^Zixi mgq t GLb c'kaKiv t h t Z cvfi K L b t e o b x ^ Z i x K i t Z nte| mvaviYZ cKi i K v t b v i c i t e o b x ^ Z i x K i t Z nte| cKfi cwb bv v K t j e'v0, mvc BZ`w` q w Z K i c O y c K f i v t K b v | c w b f w Z Q i v i c i c i B c w b t Z e m e m K v i x A b`v b` c O y c K f i c o e k K f i | Z v B c K i t m P t`q v i c i c i B t e o b x ^ Z i x K f i c t i c K i c 0 w Z i A b`v b` K v R K i t Z nte|

teobx ch'eY t teobx ch'eY c0Zw` tbi i wJb KvR n t Z nte| Kvi Y evZvm, eb` c0wY BZ`w` teobx D w t q t d j t Z cvfi | e w Y w R` K L v g v t i t e k x N b t Z i g v Q P v l K i v n q w e a v q K K i l w k q v j t K e o e o g v Q a t i t l t Z t` L v t M t Q | Z v B G m K j c O y t e o b x i q w Z K i t Z c v t i |

Awa`tekb cwi Kí bv

w` b t 02

mgq t 12.15-13.15

tgqr` Kvj t 60 w`gubU

wk`ti v bvg	t c0_wgK Drcv` bkxj Zv ewx
Afxó `j	t grm` Awa` Bti i KgRZ`e,` Ges Ab`vb` m`c0`vi Y Kgx©
j`¶	t AskM0`YKvi vMYtK gvQ PvtI c0KwZK Lv` ``i c0qvRbxqZv Ges tm`_tj vi `i`Z; m`ú`K`mg`K avi Yv t`qv hv`Z Zuv m0`v`te gvQ Pvl Kvhp`g cwi Pvj bvi j`¶` gvtQi c0KwZK Lv` ``i `i`Z; m`ú`K` grm` Pwv t` i AewZ Ki tZ cv`i b
Dt`i k`	t G Awa`tekb tk`tl c0k`pYv`_MY- <ul style="list-style-type: none"> • gvQ PvtI Lv` ``i `i`Z; ej tZ cv`i teb • wewfb0cKvi Lv` ``i tk`w`eb`vm Ki tZ cv`i teb • Lv` ``i Drm m`ú`K`eY0v Ki tZ cv`i teb • wewfb0cKvi Lv` ``i msÁv ej tZ cv`i teb • gvQ PvtI c0KwZK Lv` ``i c0qvRbxqZv eY0v Ki tZ cv`i teb

wel qm`P	Avtj vP` wel q	c0k`¶Y tK`Skj	mgq
fvgKv t			3 w`gubU
	<ul style="list-style-type: none"> • `MZ Rvbtbv • ce0Zr`Awa`tekt`bi cpi vtj vPbv • eZ0vb Awa`tekt`bi I ci Avtj vKcvZ • eZ0vb Awa`tekt`bi Dt`i k` eY0v • wel q m`ú`K`D0x`Ki Y 	e ³ Zv I c0k`wEi	
wel qe` `t			52 w`gubU
	<ul style="list-style-type: none"> • gvtQi Lv` ``i msÁv • Lv` ``i cKvi t`f` I wewfb0cKvi Lv` ``i msÁv • c0KwZK Lv` ``i Drm • c0KwZK Lv` ``i c0qvRbxqZv 	e ³ Zv, wdePvU© `j`xq KvR, c0k`wEi	
mvi -mst`¶c			5 w`gubU
	<ul style="list-style-type: none"> • cpi vtj vPbv • Dt`i k` hvPvB • n`v0AvDU weZiY • cieZr`Awa`tekt`bi minZ msthvM 	e ³ Zv I c0k`wEi	
c0k`¶Y mnvqK mvgM0 t wdePvU©gvKvP, trivqBU teW©n`vEAvDU BZ`w`			

c0_wgK Drcv` bKxj Zv epx

Rxe RMtzi c0ZuW Rxei Rxebaviti c0vb c0qvRb Lv` | Dwmc -c0Yx wbeikl c0ZuW RxeB Zvt` i wR wR cwitek t_tK Lv` M0Y Kti _vtK | gvQ GKuW Rj R kxZj i³ wwk0 tgi` Ex c0Yx | RxebaviY, kixi MvB l epxi Rb` gvQ Rj R cwitek t_tK Lv` M0Y Kti _vtK |

m=c0Z gvQ Prtli tek wKQyDbz Kj vtKskj DmweZ ntqtQ | Dbz Kj vtKskj l c0y³ c0qvM Kti Awak gvQ Drcv` tbi Rb` gvtQi Rxbpti wwfbcw` K, h_v- gvtQi kvixieE, tKsj ZE, Lv` l Lv` M0tYi Afvm BZ`w` mactK^o PQ aviYv _vkv` iKvi | gvV chiqi MtelYv, gvtQi cwicvK byxi wtklY Ges kvixieEcx cixqjvq t` Lv tMtQ th, gvtQi Lv` i c0kuz l c0kvi, Lv` vfm Ges MpxZ Lv` nRtgi c0qv gvtQi Drcv` bK e'vcKfvte cfwieZ Kti | mlg Lv` mWK wbtqg mieivn Kti cKti gvtQi Drcv` b Dtj E'hm' cwigvtY epx Kiv mae |

gvtQi Lv`

thme`e` M0tYi dtj gvtQi t`tni epxmvab, qjciY l kw³ Drcv` b nq Ges gvQ eskepx Kivi Dc'hwMx nq tm_tjvtK gvtQi Lv` ejv nq | AvaybK cxuztZ gvQ Prtli Rb` cKti c0gvm=ubeLv` i thwvb wbeiz Kiv Acvinvh` Lv` e` wwfbcw` c0kuzK (natural) l mstkw` (synthetic) ivmqubK DcKitiYi mgstq MWZ | Rxebaviti Rb` Aw` tRb l cwbi b'vq Lv` l AwZ c0qvRbxq | Aw` tRb l cwbi Lv` i Ab`Zg DcKiy | cwimgZ cwigvtY Lv` i thwvb w` tq gvtQi Awak Drcv` b wbeiz Kiv hvq | gvtQi esk epxtZ Lv` i "ZcY^o fvgkv cvj b Kti | mlg Lv` M0tY gvtQi epx Zj wSZ nq Ges gvQ h_vmgq thsb cwicKzv jvf Kti | GtZ gvtQi Rbb M0S' (gonad) cwicYfvte wkwkZ nq Ges wW^oYy l i'vYy Drcv` b qjZv epx cvq | gvtQi Rxbhvi wwfbcw` i "ZcY^o cxwZ, h_v- i³ msenb, kymkvh` cwipvj bv, AwfmeYxq Pvc wbtqsy, c0` ab (suspension) l cwbi wfZti w`Zve` tbi Rb` c0i cwigvtY kw³ i c0qvRb nq | gvQ MpxZ Lv` t_tK G kw³ cvq | G KviY` kke Ae`v t_tKB gvQtK wbtqmgZ l mlg Lv` mieivn Kitz nq | gvtQi cKti Lv` mieivn nVr e'vnZ ntj Ges` xN^omgq Lv` c0vb eU` _vKtj gvQ eU`vtZj wkvvi ntZ cvti | my` mej tcvb Drcv` tbi Rb` cwicKjgvQtK c0gvm mgx Lv` c0vb Kiv` iKvi |

Lv` i c0kvi f`

c0kuztZ gvtQi eu aitbi Lv` we`gvb | Gi gta` thgb itqtQ Rj R qj` Dwmc l c0Yx, tZgub itqtQ` exfZ (solution) c0 Dcv` vbm A'bk Dwmc l c0Yxi tcvlK | j` fvMI AmsL` Dwmc l c0YR` e` itqtQ, th_tjv gvtQi mlg Lv` wntqte e'euz ntq _vtK | wKQyml` K gvQ c0vbZ DwmR Lv` M0Y Kti _vtK | Avevi wKQyml` K gvQ i'agvI c0YR Lv` M0Y Kti | wKs' Awakvsk gvQ t`tni qjciY l epx mva'tbi Rb` c0YR l DwmR Dfq aitbi Lv` B M0Y Kti _vtK | gvtQi Gme Lv` Avtm gj Z` yU cwitek ev Drm t_tK | h_v-

- gvQ th cwitek ev gva'tg evm Kti, A` Rj R cwitek t_tK Ges
- Rj R cwitek e'vBti A` c0` exi` j` fvm t_tK |

Lv` te`i Drtmi G wfbz`v Abjviti gvtQi Lv` tK c0vbZ` f'vfm fvm Kiv nq | h_v-

- c0kuzK Lv` (natural food) Ges
- m'utK Lv` (supplemental food)

c0kuzK Lv`

gvtQi Rxebaviti gva'g cwbi tKvb Rj vktqi cwbtZ` vfwieKfvte th me Lv` e` Drcbeng, tm_tjvtK gvtQi c0kuzK Lv` ejv nq | c`wUub, Rj R KxUcZ 1/2 l Dwmc, qj` cvbv, cKti i Zj t`tki cPv` Re` c`v` BZ`w` gvtQi c0kuzK Lv` |

m`u`K Lv`

Aniak Drcv`bi Rb` c`KuzK Lv` thvM`bi cvkicwk cKti i evBti t`K wKQyLv` t`qv nq| evBti t`K t`qv Gme Lv` e`K m`u`K Lv` ejv nq| PvDti i K`ov, M`gi f`jm, mwi lvi `Lj, BZ`w` gvtQi m`u`K Lv` |

Dcwi D³ fvM Qvov gvtQi Lv` K mavi Yfvte wbtæv³ fvteI tkYweb`vm Kiv hvq| h_v-

- Dw`R Lv` (Plant feed)
- c`YR Lv` (Animal feed)
- w`k^a Lv` (Mixed feed) Ges
- `Zwi Lv` (Formulated feed) |

Dw`R Lv`

Dw`C ev Dw`R Drcm t`K th Lv` cvl qv hvq Zv` i`K Dw`R Lv` ejv nq| h_v- dvBtUvc`Uub, ¶` cvbv, meR Nvm, big Rj R Dw`C, PvDti i K`ov, mwi lvi `Lj, M`gi f`jm BZ`w` |

c`YR Lv`

c`Yx ev c`YR Drcm t`K c`B Lv` K c`YR Lv` ejv nq| h_v- Ryc`Uub, ¶` Rj R KxUcZ½, Mew` ci i i³, ti kgKxU, wdk w`j BZ`w` |

w`k^a Lv`

Dw`C I c`Yx ev Df`q Drcmi Lv` e` GKt` w`k^a th Lv` `Zwi Kiv nq Zv`K w`k^a Lv` ejv nq| h_v- PvDti i K`ov, Mew` ci i i³, cKti i Zj t`ki cPr `Re c`v`BZ`w` |

`Zwi Lv`

wefb`Lv` Dcv`vb GKt` w`k^a th m`lg Lv` `Zwi Kiv nq Zv`K `Zwi Lv` ejv nq| `vbi vi, ewo ev wctj U AvKv`i `Zwi Lv` Drcv`b Kiv nq| eZ`yrb evRv`i wefb`ai`bi `Zwi Lv` cvl qv hvq| h_v- =vUvi, tM`qvi, w`wbkvi BZ`w` |

c`KuzK Lv`

tKvb Rjvktqi cwb avit`Yi Avavi ntjv gwU| gwU i Yv`Y cwi Yv`YtK c`fweZ Kti | gwU I cwi `fweK DePZiq tKvb Rjvktq thme Lv` e` Drcw`Z nq tm`tjv`K gvtQi c`KuzK Lv` ejv nq| mwi c`qv`Mi gra`tg cyo mieivn Kti cKti ch`B cwi gvtY c`KuzK Lv` Drcv`b Kiv hvq| c`KuzK Lv` gvtQi Rxebavit`Yi Rb` c`qvRbxq Lv` i c`vb Drcm| tKvb Rjvktqi c`KuzK Lv` i ch`BZv D³ Rjvktqi c`w`K Drcv`bkxj Zv wbt`R Kti |

c`KuzK Lv` i Drcm

Dw`C -c`Yx w`w`k`l cwb`Z `fweKfvte w``gvb c`qme RxeB gvtQi c`KuzK Lv` i Drcm| G Qvovl cwi Zj t`k I Kiv`vi Dcti Ae`vbKvix Rxeš-bq Ggb cPr `Ree`Zi gvQ c`KuzK Lv` wntmte M`Y Kti `vtK| Gme cPr `Ree`ZiZ AmsL` evKtUwi qv I t`Uv`Rvqv tj`M `vtK, th`tjv Aniak cyogvb mgx Ges gvtQi c`KuzK Lv` wntmte `i`ZcY` gvtQi Gme c`KuzK Lv` c`vbZ w`Kvi I w`Kvix Gi`c f`ygvq ci`cti i gta` w`qv c`Zw`qv Kti Ges Lv`, `vb BZ`w` i Rb` ci`cti i m`½ c`ZthwMzv Kti | `Re e`Zi Gi`c cvi`cwi K m`cK`K Lv` P`u ejv nq| Lv` P`u i gra`tg gvtQi c`KuzK Lv` Drcb`nq|

Rj R cwi tətək cōB gvtQi cōKwZK Lv` tək wbaifc 6wU tkŋYtZ fVŋ Kiv hvq| h_v-

- c`#4Ub (plankton)
- tcwi dvBUb (periphyton)
- tbKUb (nekton)
- wbdmUb (neuston)
- tebt_vm (benthos) Ges
- g`vtμvcdvBU (macrophyte)

c`#4Ub

cwbtZ we` gvb ղի` ղի` RxeKYv, A_Ք AvYexղիYK cōYx I Dwm` tK c`#4Ub ej v nq| c`#4Ub cwbi tXD ev tmŋtZi wecixtZ muZvi KvUtZ cvti bv| tmŋZ ev tXDtqi Zvtj Zvtj Giv wbw` μqfite tfŋm teovq| c`#4Ub gvtQi cōvb cōKwZK Lv` | cwbtZ c`#4Ub tewk_vKv cKti i Awak Drcv` bKxj Zv wbt` R Kti | c`#4Utb i AwatK` cwbi eYmeR ev ev` vgx t` Lvq| c`#4Ub `B cKvi, h_v-

- Dwm` c`#4Ub (phytoplankton) Ges
- cōYx c`#4Ub (zooplankton) |

Dwm` c`#4Ub t ղի` ղի` Rj R Dwm` B Dwm` c`#4Ub| G_tj vi eYmeR| Dwm` c`#4Ub gvtQi cōKwZK Lv` i cō_wgK Dm| thgb- Avbvtebv (*Anabaena*), `cvBti vMvBiv (*Spirogyra*), bwfKj v (*Navicula*), cwj tUvtgj v (*Polytomella*), tcwWtq`tg (*Pediastrum*), wmtbtWmgvm (*Scenedesmus*), tdKvm (*Phacus*) BZ`w` |

cōYx c`#4Ub t ղի` ղի` Rj R cōYx I KxUcZt½i j vfŋK cōYx c`#4Ub ej v nq| cōYx c`#4Ub gvtQi cōKwZK Lv` i wZxq ev ga`g chŋqi Dm| Rj c`#4Ub cōYR Lv` i cō_g Dm| thgb- W`vclwqv (*Daphnia*), mvBKŋŋ (*Cyclops*), WqvcŋUvgvm (*Diatomus*), tKivŋUj v (*Keratella*), wclwj wqv (*Filinia*), eŋKl bvm (*Brachionus*), cwj Av_Ք (*Polyarthra*) BZ`w` |

tcwi dvBUb

tcwi dvBUb ntj v Hme ղի` Dwm` I cōYx hviv wKkohy³ I AtcղիKZ eo Rj R Dwm` i kvLv cKvLvq tj tM_vtK ev cwbi Zj t` tki k³ tKvb Avktq` pfite Ae`vb Kti Rxeb hvcb Kti |

tbKUb

AtcղիKZ eo aiŋbi Rj R cōYx hviv gy³ fite muZvi KvUtZ cvti Ges `ŋaxbfite Pjvtdiv KitZ cvti, Zvt` itK tbKUb ej v nq| tbKUb c`#4Ub tbtU aiv cov t` tK wbtRtK gy³ KitZ cvti | h_v- IqvUvi exUŋ, ղի` DfPi cōYx, Rj R tcvKv gvKo BZ`w` |

wbdmUb

cwbi DcwifvŋM Stj t` tK ev fvmgib Ae`vq muZvi i Z ev nekŋgKvix RxeŋK wbdmUb ej v nq| h_v- tcŋtUvtRvqv, KxUcZ½ BZ`w` |

e`vbt_vm

cwbi Zj t` tK Kv` vi DcwifvŋM ev Kv` vi gta` emevmKvix RxeŋK e`vbt_vm ej v nq| h_v- kvgK, wSbjK BZ`w` |

g`v`tpvduvBU

A`c`q`vKZ eo ai`bi Rj R Dw`m`c` tK g`v`tpvduvBU ej v nq | h_v-` q`r` c`v`v, K`u` c`v`v BZ`w` |

c`k`w`ZK Lv` ``i c`q`vRbxqZv

gvQ P`v`l i Rb` Rj vktq c`k`w`ZK Lv` ``i cwi`gZ thvMvb`vb LpB` _i`Zc`Y`q` c`k`w`ZK Lv` ``i gv`Qi Lv` `` P`m`K mPj` i`v`L | dtj` Rj vktq gv`Qi w`f`b`e`c`k`vi Lv` `` Dcv`vb P`m`v`k`v`i | Awei Z`f`v`e` Drcw` Z n`q` _v`K | G`Z gv`Qi t` `ni` `v`f`w`e`K c`p`o` m`v`ab | e`p`x` N`t`U` _v`K Ges Rj vktqi `Re f`v`i`m`v`g` (biological equilibrium) e`R`v`q` _v`K | e`v`c`K w`f`w`E`K (extensive) gvQ P`v`l i t`q`r`i` c`k`w`ZK Lv` ``B gv`Qi c`p`o`i GKgv`I` D`r`m` |

c`k`w`ZK Lv` ``i gv`Qi `v`f`w`e`K L`v`e`i | GRb` gvQ m`n`R`B c`k`w`ZK Lv` ``i M`h`Y` K`i` | c`k`w`ZK Lv` ``i c`p`o`g`v`b` t`e`n`k` Ges G`_`t`j`v` m`n`R`B` n`R`g` n`q` | G` K`v`i`Y` c`k`w`ZK Lv` ``i cwi`e`Z`B` n`v`i (conversion rate) m`P`K` m`S`L`v`g`v`b` K`g` , h`v` A`w`a`K` D`r`c`v`b` w`b`i`O`Z` K`i` |

t`M`v`e`i` , n`v`m`-g`j`w`l`i` w`e`o`v` BZ`w` `Re m`v`i` m`n`R`j` f` Ges `v`t`g` A`c`q`v`K`Z` m`v`v` | G`m`e` `Re m`v`i` e` `e`n`v`i` K`i` c`w`b`t`Z` c`p`o`i` cwi`g`v`Y` c`v`w`u`b` Rj vktqi` D`r`c`v`b`k`j` Z`v` e`p`x` K`i` |

t`k`c`v`i`K`v`D`m` (Schaperclaus) g`t`b` K`i`b` t`h` K`v`c`R`v`Z`x`q` gvQ P`v`l i t`q`r`i` c`q`v`R`b`x`q` Lv` ``i 50 k`Z`v`sk` c`k`w`ZK Lv` ``i n`l`q`v` D`w`P`Z`|Z`j` Ges t`n`c`v`i` (Tal and Hapher) Z`u`f` `i` c`i`x`q`v` w`b`i`x`q`v`q` t` `t`L`q`b` t`h` , c`k`i` D`r`c`w` Z` c`k`w`ZK Lv` ``i K`v`c`R`v`Z`x`q` gv`Qi ` `w`n`K` e`p`x`i` Rb` A`Z`v`e`k`K` | t`Z`j` w`c`q`v`i` Rb` c`k`i` b`i`b`Z`g` 10 k`Z`v`sk` c`k`w`ZK Lv` ``i t`h`v`M`v`b` _v`K`v` `i`K`v`i` |

c`k`i`i` w`e`f`b`e` `t` n`t`Z` Lv` ``i M`h`Y`K`v`i`x` w`e`f`b`e`c`R`v`i`Z`i` gvQ`K` h`_`v`h`_` cwi`g`v`Y` m`e`u`i`K` Lv` ``i m`i`e`i`v`n` K`i`v` h`v`q` b`v` | Z`v`Q`v`o`v` , m`e` c`R`v`i`Z`i` gvQ` m`e`u`i`K` Lv` ``i M`h`Y`i` m`g`v`b` D`r`m`v`n` t` `L`v`q` b`v` | A`v`e`i` G`K`B` Rj vktq` G`K`B` m`g`t`q` w`e`f`b`e`a`i`t`b`i` m`e`u`i`K` Lv` ``i m`i`e`i`v`n` K`i`v` e` `q`e`u`j` | K`o`m`v`a` |

K`w`i`g` e`v` m`e`u`i`K` Lv` ``i c`k`w`ZK Lv` ``i w`e`K`i` b`q` , cwi`c`i`K` gv`I` | A`t`b`K` m`g`q` m`e`u`i`K` Lv` ``i m`j`g` n`q` b`v` | G` Rb` gvQ P`v`l i c`k`w`ZK Lv` ``i _i`Z`j`A`c`w`i`m`x`g` |

- gw`u` | c`w`b`i` `v`f`w`e`K` D`e`P`Z`v`q` t`K`v`b` Rj vktq` t`h`m`e` Lv` ``i `e` D`r`c`w` Z` n`q` t`m`_`t`j`v`K` gv`Qi` c`k`w`ZK Lv` ``i e`t`j` |
- c`k`w`ZK Lv` ``i gv`Qi` R`x`e`b`a`v`i`t`Y`i` Rb` c`q`v`R`b`x`q` Lv` ``i c`a`v`b` D`r`m` |
- Dw`m`c` c`O`Y`x` w`b`e`f`k`t`l` c`w`b`t`Z` `v`f`w`e`K`f`v`e` w`e` `g`v`b` c`O`q` m`e` R`x`e`B` gv`Qi` c`k`w`ZK Lv` ``i | t`e`b`t`_`v`m` , g`v`tpvduvBU BZ`w` t`k`i`Y`t`Z` f`v`M` K`i`v` n`q` |
- gvQ P`v`l i Rb` Rj vktq c`k`w`ZK Lv` ``i cwi`gZ thvMvb`vb LpB` _i`Zc`Y`q`
- K`w`i`g` e`v` m`e`u`i`K` Lv` ``i c`k`w`ZK Lv` ``i w`e`K`i` b`q` , cwi`c`i`K` gv`I` |
- D`b`z` m`b`v`Z`b` c`x`w`Z`t`Z` gvQ P`v`l i t`q`r`i` c`k`w`ZK Lv` ``B` gv`Qi` c`p`o`i` GKgv`I` D`r`m` |

Awatekb cwi Kĭ bv

w` b t 02

mgq t 13.15-14.00

tgqv` Kvj t 45 wgvbU

wkřivbg t	Drm ř_řK řcbr mřMř I cwi enb
Ařxó `j t	grm` Awa` Bři i KgřZveř` Ges Ab`vb` mřcřvi Y Kgř®
j ř` t	čikřYv_ř` i ĀK, ůks I gv, i gvřQi řcbr mřMř, cwi enb I řkvab mřúřK avi br cř vb
Dřřk` t	G Awatekb řkřI čikřYv_řY- <ul style="list-style-type: none"> • ĀK, ůks I gv, i gvřQi řcbr cwi enb řKřkj I řcbr řkvab mřúřK RvbřZ cwi řeb Ges ciewřřZ Zriv gv řhřq Pwł ř` řřK čikřY I civgkř řZ cwi řeb

wel qmřP	Ařřj vřP` wel q	čikřY řKřkj	mgq
řřgKv t			5 wgvbU
	<ul style="list-style-type: none"> • ĀMZg • eZřvb Ávb hvřvB • eZřvb Awatekbři mřř_ mřřhvM Āvcb • Awatekbři Dřřk` e`vL`v • DřřkřKi Y 	e ³ Zv I čřkřEi	
wel qe`ř t			30 wgvbU
	<ul style="list-style-type: none"> • ĀK, ůks I gv, i gvřQi řcbr mřMř I cwi enb řKřkj • mřvřb cřwřZ • AwařbK cřwřZ • Ab`vb` cřwřZ • řcbr řkvab 	e ³ Zv, čřkřEi, gřř wřřři So Ges wřcřvU® cř kř	
mvi -mřřřc t			10 wgvbU
	<ul style="list-style-type: none"> • gř wel qmřřni cřřřřř vřv • Dřřk` hvřvB • n`vĀAvDU wēZi Y • ciewřřAwatekbři mřř_ mřřhvM • ab`er` Ávcb 	čřkřEi	
čikřY mřvřK mřgMř t wřcřvU®gřKřř, řřřřBU řēw®, n`vĀAvDU BZ`w`			

wdcPvU`cwi Kí bv

<p>Drm t_ťK tcvbv msMŕh, cwi enb I tkvab</p>	<p>cwi entbi Dchy³ tcvbv</p> <ul style="list-style-type: none"> • ˆK 20/21 w`b eqťmi • wks 30/40 w`b eqťmi • gv_s i 25/30 w`b eqťmi <p>cwi enb c×wZ</p> <p>1) mbvZb c×wZ</p> <ul style="list-style-type: none"> • cwZj /Wŕg • cwi entbi cťe⁹UKmBK i Y • bj Kc/b`x cKťi i WĖv cwb e`envi KiťZ nťe • 20/30 Uv tcvbv /wj . cwbťZ mvavi YZt cwi enb Kiv hvq
<p>gvW chŕq (6-8 NĖv ágťY) t</p> <ul style="list-style-type: none"> • cwZťj <ul style="list-style-type: none"> - ˆK t 1000- 1500wU (8-12 wj . cwbťZ) - wks l gv_s i t 1000-2000wU (8-12wj . cwbťZ) • Wŕtg <ul style="list-style-type: none"> - ˆK t 7000-8000wU (0.2- 0.3 Mŕg Mo l Rb) - 5000-6000wU(0.4-0.5 Mŕg Mo l Rb) - wks l gv_s i t 4000- 6000wU (wks 30-40 w`ťbi , gv_s i - 25-30 w`ťbi) 	<ul style="list-style-type: none"> • wks l gv_s i Wŕg/cwZťj cwi enb bv Kiv fvj • cŕ kŕx cKŕi `vcb • Pŕťi cKťi avb tŕZ ev tWvew -bvjv t_ťK Gme gvťQi cŕeťki mťhvM `vb • ivŕmx l AewĀZ gvQ `ixKiťY wcl cŕqvM c×wZ wbi`rmvvnZ Kiv • Avevm`ťj i cpi`xťi i gva`tg gy³ Rjvktq Gť`i wepiťYi cwi wa evovťZ nťe • Afqvktg `vcb
<p>AvapbK c×wZ</p> <ul style="list-style-type: none"> • O₂ – e`vťM • e`vťMi mvBR mvavi YZt 66 tmwg. 46 tmwg. • `wU cwj w_b e`vM w`ťZ nťe • cťi cwj e`vM tcvwi /bvmŕŕi mn cvťUi e`vM/e`vq XKvťZ nťe • 20/21w`b eqťmi ˆK 250-300 Mŕg cwi enb Kiv hvťe • 30-40 w`ťbi wks Ges 25-30 w`ťbi gv_s i , 300-400wU cwi enb Kiv hvq • Gfŕte 15- 18 NŕUvi c_ tcvbv cwi enb Kiv hvťe • 4-6 NŕUvi ágťY 1-1.5 tKŕR chŕ- tcvbv cwi enb Kiv hvťe • ZvcgvĪv 22-27⁰ tmj wmqvi Gi gťa`_vKv DŕPZ • cwj w_b e`vM thb wj K bv nq tm w`ťK wětkl `wŕ w`ťZ nťe • Awak ZvcgvĪvq tkvl ŕbi Rb` PťUi e`vM ev e`v wŕwRťq tbqv thťZ cvťi • e`vbŕvm U`vstK/Bbmťj ŕUW U`vstK tcvbv cwi enb Kiv hvq 	<p>ťcvbv tkvab</p> <ul style="list-style-type: none"> • 10 wj . cwbťZ 200 Mŕg jeY ev 1 Pv PŕgP cUwkvqg cvi gv`vťbU (Kmn4) wgvkťZnťe • Nb Rvťj i gťa` 200- 300 wU tcvbv tiťL 300 tmt tMvmj KivťZ nťe • D³ wgvkb5-7 evi e`envi Kiv hvťe <p>ťcvbvcwi entb mZKŕv</p> <ul style="list-style-type: none"> • GKB AvKvťi i tcvbv GKmvť_ cwi enb Kiv DŕPZ & • tcvbv cwi entYi AvťM tcvbvťK KŕĖkŕbs Kťi wťZ nťe • `ŕŕ tcvbv cwi enb Kiv DŕPZ bq • e`vťM /cvťĪ mi vmi cwb t`qv hvťe bv • cŕqvRťb GKB ZvcgvĪvi cwb w`ťq cwb e`j vťZ nťe • wks l gv_s ĩi tcvbv Wŕg ev cwZťj cwi enb Kiv B DĖg • cwŕK Wŕtg cwi entY Mvťq ŕZ Kg nq • tcvbv Qrovi ci cŕZ kZK wntmťe tj ŕix/bvmwi vBW/ Aw ŕmbŕUw /tibvgvBŕmb BZ`w` ŕviv wŕwKŕmv Kiťj fvj dj cvl qv hvq

cwi enbKvtj cwi w_b e`vM hvfZ wQ`n`Z bv cvti tm w`tk wtkl `w` ivL`Z nte| m`e ntj cwi w_b e`vM e`vq fti cwi enb Ki`Z nte|

3) Ab`vb` c`wZ t Dctiv³ c`wZ Qvovl wbtP wj wLZ c`wZtZ tcvbv cwi enb Kiv hvq|

1. Bbm`fj tUW U`vstK Gti Utii m`vnt` Aw` tRb mi eivtni gva`tg tcvbv cwi enb Kiv hvq|
2. K`vbfvm U`vstKi gva`tg wck-Avc ev Ab` tKvb Mvox e`envi Kti GtiUi tmU Kti tcvbv cwi enb Kiv hvq|
3. AvRKvj F`vb MvoxZ tgvUv cwi w_b KvMR wbtq K`vbfvm U`vsk `Zwi Kti I tcvbv cwi enb Ki`Z t`Lv hvq|

tcvbv cwi en`Y mZK`v

1. GKwU cwiZtj ev W`tg/U`vstK/e`vM GKB AvKvti i tcvbv cwi enb Kiv DwPZ|
2. tcvbv cwi enb Kivi AvtM tcvb`K tU Lvij Kti K`E`kubs Kti wbtZ nte|
3. `p` tcvbv cwi enb Kiv hvte bv|
4. cwi enbKvtj mi vmi bj K`ci cwb e`vM/cwiZtj/W`tg/U`vstK t`qv DwPZ bq| GtZ tcvbv gviv thtZ cvti |
5. c`qvRb ntj GKB Zvcgv`vi fvj cwb w`tq e`vMi ev cwi enb cvt`i cwb e`j vtbv thtZ cvti |
6. wks I gv`i gv`Qi tcvbv W`g/cwiZtj cwi enbKvtj tctUi w`K t`tk Niv tL`q `I`Z m`o nq| ZvB G`tj vtK e`vM cwi enb KivB fvj | e`vM cwi enb Kti tcvb`K Aek`B tkvab Kti c`Kti QvotZ nte Ges Kg cwi gvY tcvbv GK mvt` cwi enb Ki`Z nte|
7. tj vmi /tcbw`Ui W`gi cwi etZ`c`wK W`g tcvbv cwi enb KivB fvj | ZvZ `I`Z Kg nq|

tcvbv tkvab t c`Zt`aK I w`P`Krmv

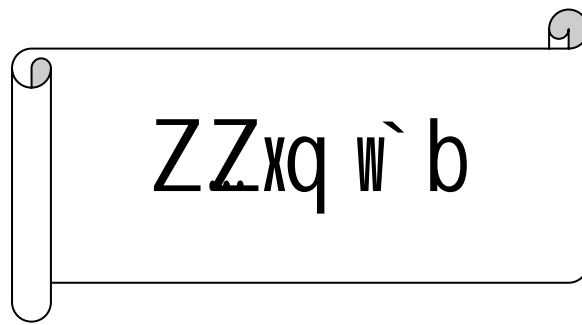
tcvbv cwi enb Kti Lvgti tbi qvi ci c`Kti Qvovi c`e`tcvbv tkvab Kti wbtZ nte Ges GtZ tcvbv m`v`_vKte Ges tivM evj vB Gi m`tebv Ktg hvte| tcvbv w`g`e`f`c`f`vte tkvab Kiv hvte t

1. GKwU evj wZtZ 10wv Uvi cwb wbtq Gi gta` 200 M`g Lveri j eY A`ev 1 P`v PvgP Wv³wi cUvk (KMno₄) w`kv`Z nte|
2. AZtci evj wZi Dci GKwU Nb Rvj ti`L Zvi gta` c`Zevi 200-300wU tcvbv QvotZ nte|
3. Zvici Rvj atj tcvbv`tj vtK evj wZi cwb`Z 30 tm`K`E` tMvmj Kiv`Z nte|
4. Gfite GKevi `Zwi Kiv j eY/cUvt`ki cwb`Z 5-7 evi tkvab Kiv hvte|

Wv³wi cUvk ev j eY cwb w`tq tcvbv tkvab Qvovl GwU`Jevt`q`w`K w`tq tcvb`K c`Kti Qvovi mvt`_mvt`_B tivMgy³ ev tivM c`Zt`iva e`e`v M`Y Kiv hvq, thgb-

1. c`Kti tcvbv Qvovi ci Oxysaytin, Lenocide BZ`w` M`g c`RiUf, M`g tb`M`Uf e`Kt`Uwi qv, fvBivm, d`vsMvm, G`vj wR I t`Uv`RvqvRwbZ gvivZ`K `I`ZKi tivMRxevY, t`j vtK c`Zt`iva I w`g`f` Kivi Rb` e`envi Kitj fvj dj cvl qv qvq| GQvovl evRvti w`f`b`Kv`v`v`xi w`f`b`ti vM c`Zt`iva Ki`Z cvti Ggb JIa cvl qv hvq|

Lenocide tj vi x/bv`mwi vBW (Zij)	500 w`g`j / 100 kZvsk (hLb cwi Mfxi Zv 2-3 dU)
Oxysentin 20% (cvDWi)	1000 w`m`m /100 kZvsk (hLb cwi Mfxi Zv 5-6 dU)
Renamycin (cvDWi)	c`Z 100 tKwR Lveti 10 w` b ch`S-Lvl qv`Z nte
	1 P`v PvgP cvDWi c`Z10 tKwR Lveti w`g`k`q 5-7 w` b Lvl qv`Z nte



Awatekb cwi Kí bv

w` b t 03

mKvj 08.00-09.00

tgqv` Kij t 60 wgvbu

<p>wk`t`vbg t cpi`vtj vPbv, c`Z`fve I Dc`vcbv</p> <p>Afxo`j t grm` Ana`B`ti i KgRZ`e`x`</p> <p>j`q` t cik`qly`_`i ce`q` tbi Kvh`p`tgi cpi`vtj vPbv I c`Z`fve Ges mvU`Kvj xb KvR Dc`vc`tbi m`thvM K`ti t`qv hv`fZ Zviv c`teP Avtj vPbv `s`i Y Ki`fZ cv`tib Ges fj T`wU m`stkvab K`ti Awatek`tbi Kvh`R`vwi Zv ew`x Ki`fZ cv`tib </p> <p>D`i`k` t Awatekb t`ktl AskM`th`Y`Kvi xMY ce`q` tbi cik`qly` cpi`vtj vPbv gva`tg fj T`wU m`stkvab K`ti HKgt`Z` t`c`i`fZ m`q`g n`teb </p>

wel qm`P	Avtj vP` wel q	c`x`wZ	mgq
f`wgKv			5 wgvbu
	<ul style="list-style-type: none"> `wMzg Pj wZ Awatek`tbi mv`t`_m`st`hvM 	e ³ Zv	
wel qe`-`			50 wgvbu
	<ul style="list-style-type: none"> c`Z`w`nK RvY`qj Dc`vcb cik`qly`K ce`q` tbi wbe`PZ cik`qly`_`iK c`Z`w`nK RvY`qj t`_`fK 5wgvbu ej vi Rb` Ab`f`i va Ki`teb c`l`g cik`qly`_`PZvi c`Z`w`nK RvY`qj Dc`vcb t`kl Ki`fj Ab` t`KD Avi t`Kvb w`et`kl w`k`qly`Yxq wel q Dc`vcb Ki`fZ AvM`th`x w`Kbv Zv c`k`u`k`ti Rvb`teb Ges t`KD AvM`th`x`_`vK`fj Zv`fK Dc`vcb Kivi m`thvM t``teb ce`q` tbi cpi`vtj vPbv cik`qly`K GKRb cik`qly`_`iK mnvqK w`n`t`m`te wbe`Pb Ki`teb w`h`w`b MZ w` tbi mg`-Kvh`p`ig I w`k`qly`Yxq wel q`_`tj v c`k`u`k`ti i gva`tg cpi`vtj vPbv Ki`teb 	e ³ Zv c`k`u`k`ti	
mvi -m`st`q`lc			5 wgvbu
	<ul style="list-style-type: none"> c`Z`w`nK RvY`qj I mvU`Kvj xb Kv`f`Ri Dc`vcbv Ges c`Z`w`nK cpi`vtj vPbvq AskM`th`f`Yi Rb` mevB`f`K ab`ev` Ávcb 	e ³ Zv I c`k`u`k`ti	
cik`qly` mnvqK mvgM`t t` t`nvqvBU teW`°gvK`q, BZ`w`			

Awatekb cwi Kí bv

w` b t 03

mgq t 09.00-10.00

tgqv` Kij t 60 wgbU

wkftvbg t`K gvtQi tcvbr gRy I Lv` e`e`vcbr
 Afio` j t grm` Ana` Bi i KgRZ`

j` t c`k`Yv` i`K gvQ Pvl e`e`vcbrq tcvbr gRy I Lv` e`e`vcbrv I ci` Avb ep`x Kiv nte hvfZ Zviv
 AmRZ` Avb Pwl` i` gvtS h_vh_fvte` vbrš` Kti gvQ Pvl ep`x`Z mrvqZv Ki`Z cvti` |

Df`k` t G Awatekb tkfI c`k`Yv`
 • tcvbrv gRy NbZ`vba`Y Ki`Z cviteb
 • fvj I Lv`vc tcvbr kbr`3 Ki`Z cviteb
 • tcvbr cwi enb I Aegv`3 m`u`K`ej`Z cviteb |
 • m`u`K Lv` c`qvtMi` i`Z`je`vL`v Ki`Z cviteb
 • Lv` I Lv` DcKiY` v`gRvZKiY Ges c`Z` w`l`q`ej`Z cviteb
 • m`u`K Lv` c`qvtMi` gv`v Ges c`qvtMi` tKškj m`u`K`ej`Z cviteb |

wel qmP	Avtj vP` wel q	c`k`Y tKškj	mgq
fvgKv t			3 wgbU
	<ul style="list-style-type: none"> · MZg · ce`Zi`Awatektbi cpi vtj vPbv · eZ`vb Awatektbi I ci` Avtj vKcvZ · D`x`KiY 	e`3Zv I c`k`Ei	
wel q e`t			50 wgbU
	<ul style="list-style-type: none"> · tcvbr gRy nvi vba`Y · tcvbr gRy Kij xb KiYxq · m`g m`u`K Lv` c`p` Dcv`vb · Lv` DcKiY vbe`P`b weteP` wel q · gvtQi c`p` Pwn`v · m`u`K Lv` `Zwi · bgbvqb I m`u`K Lv` c`qvm · Lv` I Lv` DcKiY` v`gRvZKiY 	e`3Zv, c`k`Ei, gv` wPšwi So, `j xq KivR Ges w`c`PvU`c`0 k`	
mvi -mst`c t			7 wgbU
	<ul style="list-style-type: none"> · gj wel qmg`ni cpi vtj vPbv · Df`k` hvPvB · n`v`AvDU weZiY · ci`ewZ`Awatektbi mvt` msthvM · ab`ev` Avcb I w`vq 	c`k`Ei	
c`k`Y mrvqK mvgM` t feW`gvK` , w`DRw`U, w`c`PvU` c`KZ e` ; n`v`AvDU BZ`w`			

^K gvtQi tcvbv gRy` I Lv` e`e`vcbv

Pv`li DEg djvdj wbfP` Kti` fvj` gv`bi extRi` I ci` | fvj` Drcv` b tctZ` ntj` wei` x` tKšuj` ZwiEK` _Yv`_Y m`u`bretcvbv` wbeP`tbi` c`u`B w`w`OZ` Ki`tZ` nte` | G` Rb` cwi`wPZ` wek`i` w`bfP`thvM` tcvbv` Drcv` bKvixi` w`bKU` ntZ` tcvbv` msMh` KivB` DEg` | cKti` c`u`tZi` mgq` ntZB` tcvbv` c`u`Bi` Rb` thvM`thvM` i`i` Ki`tZ` nte` | tcvbv` Qovoi` NbZi` m`u`Y`fvt` w`bfP` Ki`t` Lv`vixi` gvQ` Pv`li` Awf`AZv` , Aw`_R` ^`Qj` Zv` , gvQ` Pv`li` AvMh` , cKti` i` gwU` I` cwbi` _Yv`_Y Ges` Pv`li` c`x`wZi` I` ci` | cKti` c`u`tZi` 4-5` w` b` ci` ewY`wR`K`fvt` ^K` gvtQi` GKK` Pv`li` Rb` w`bgw`wY`Z` nvti` tcvbv` Qovov` thtZ` cvti` |

μwgK bs	Pv`li` c`KwZ`	m`e`e` gRy` NbZi` (kZtK)	gše`
1	gtWj` -1	250-300	-
2	gtWj` -2	400-500	cw`b` cwi`eZ`fbi` e`e`v` _vKtZ` nte`

cKti` i` cwbi` cwitek` fvj` ivLvi` Rb` ^K` gvtQi` mvt`_ kZtK` 2-3` wU` wnj` fvi` Kv`cP` 6"-7" AvKv`ti` i` tcvbv` Qovov` thtZ` cvti` | GLvtb` Dti` E` th` , ^K` gvtQi` mvt`_ mw`_ dmj` wntmte` c`u`Z` kZtK` t` kx` gv`_i` 20wU` A`_ev` wks` 10` wU` gRy` Kiv` thtZ` cvti` |

tcvbv` gRy` Kuj` xb` Ki`Yxq`

gRy` Kuj` xb` mg`q` tcvbvi` gZynvi` Kgv`bvi` Rb` w`bgw`j` wLZ` e`e`v` Mh`Y` Kiv` thtZ` cvti` t`

1. cwi`enb`RwbZ` Kv`iY` tcvbvi` kixi` ¶I`Z` ntZ` cvti` tm` Rb` tcvbv` Qovoi` c`e`e`1` w`cicGg` nvti` cUw`kqvg` cv`i`tg`w`t`bU` A`_ev` Lvevi` j` eY` cw`b`tZ` tMvmj` Kwi`tq` tcvbv` QovotZ` nte` |
2. hw` m`e`e` nq` tcvbv` Qovoi` mgq` t`_tK` 10-12` NbUv` cKti` nij` Kv` cwbi` c`e`v` i`vL`tZ` nte` |

tcvbv` Qovoi` mgq`

Vv`Ev` Avenvl` qvq` w` t`bi` th` tKvb` mg`q` tcvbv` Qovov` thtZ` cvti` | Zte` mKuj` A`_ev` weKv`tj` tcvbv` Qovov` DEg` | `p`ti` i` ti`v` , f`vcmv` Avenvl` qvq` , Aw`evg` e`w`i` mg`q` cKti` tcvbv` bv` Qovov` DEg` | cKti` tcvbv` gRy` i` ci` 1-2` w` b` cKti` tcvbvi` gZi` nvi` ch`e`¶Y` Kiv` `i` Kvi` | tcvbv` gZi` nvi` teik` ntj` mg` cwi`gvY` tcvbv` Qovoi` e`e`v` Ki`tZ` nte` |

Lv` e`e`vcbv`

gv`ti` fvj` Drcv` b` cvevi` Rb` fvj` extRi` A`_v` tcvbvi` thgb` c`u`qvRb` tZgbB` fvj` gv`bi` Lv` `i` w`b`o`qZv` weavb` Ri`"i`x` | gv`ti` `f`v`weK` e`w`x`i` Rb` Ab`vb` c`u`Yxi` b`vq` Lv` `i` w`b`w` `e` gv`v`q` me` c`w`o` Dcv`vb` _vKv` c`u`qvRb` | gvQ` Zvi` `^` w`K` e`w`x` I` c`w`o` R`b` cKti` c`u`B` Lv` `i` I` ci` w`bfP`kxj` | ewY`RK`fvt` j`v`fRbK` Dcv`tq` gvQPvI` Ki`tZ` tM`tj` gv`ti` gRy` NbZi` evov`tZ` nte` | ^K` gvtQi` GifcGifc` Pv`li` t¶I`tI` tKej` gvI` c`u`KwZK` Lv` `i` I` ci` w`bfP` Kti` fvj` dj` b` cvl` qv` m`e`e` bq` | w`b`w`o` gvQPvI` m`u`i`K` Lv` `i` e`envi` Lp`B` _i`"Z`c`Y`¶` G` t¶I`tI` c`u`KwZK` Lv` `i` c`v`k`v`c`w`k` m`t`g` `v`b`v`i` Lv` `i` c`u`qvM` Avek`K` | dtj` tgvU` Drcv` b` A`t`bKv`st`k` Zj` bvgj` Kfvt` te`to` hvq` |

m`u`i`K` Lv` `i` c`w`o` Dcv`vb`

gv`ti` t`n` MVb` , kw`³` Drcv` b` Ges` wef`b`e`k`vixi` e`w`E`q` Kv`h`e`j` x` m`u`v` `t`bi` Rb` Awgl` , Pwe`e` kK`P`v` , w`fUw`gb` Ges` LubR` j` eY` AZie` c`u`qvRb` | gvQ`v`ti` c`Rw`Z` , AvKvi` , Pv`li` tgs`mg` c`f`v`Z` we`te`P`bv` Kti` m`u`i`K` Lv` `i` c`u`tZ` c`w`o` Dcv`v`t`bi` gvI`v` w`b`a`¶Y` Ki`tZ` nq` |

gvfQi cjo Pwn`v

`*Z ep`x A_`r gvfQi ewāZ Drcv`b wbowōZ Kivi Rb` gvfQi mēg Lverti cōqvRbxq Dcv`vb _vKv Avek`K | Avevi GmKj Dcv`v`bi gta` Awgtl i Pwn`v tenk | gvfQi Lv` `Zwi tZ thme Dcv`vb e`envi Kiv nq Zvi cēZ`KwUfZ Lv` `i weirfbwDcv`vb thgb- kK`Pv, Pwe`l LwbR jeY Kgtēkx we`gvb _v`K | Gme Lv` DcKiY Øviv Awgtl i Pwn`v cēY ntj Ab`vb` cjo Dcv`v`bi tZgb tKvb Afve cwij w`fZ nq bv | eqmwfūEK `K gvfQi Awgtl i kZKiv Pwn`v avbx I A½zj tcvbv Ges eq`c gvfQi Rb` h_vµtg 40, 35 Ges 30 fV M | cKti Lv` cōqvM gvīv

gvfQi Lv` MōY gvīv wbfP Kti cwbi tēfZ I imvqubK _Yvejxi AbKj Ae`vi I ci | Zvcgvīv evotj gvfQi wecvKxq Kvhētgī nvi tefo hvq | dtj Lv` Pwn`v ep`x cvq | GKBfvte cwbi Zvcgvīv Ktg tMēj Lv` Pwn`v I Ktg hvq | cwbi Zvcgvīv 10µ tm. tenk ntj Lv` MōY gvīv w` _Y ntq hvq GKB fvte Zvcgvīv 10µ tm. Ktg tMēj gvfQi Lv` MōY nvi A`tafK tbtg qvq | cwbi wGBP 7-8.50 I cwbtZ `ēfZ Aw` tRtbi gvīv evotj gvfQi Lv` Pwn`v ep`x cvq | wecixZfvte wGBP I Aw` tRtbi gvīv Ktg hvevi Kvi`Y Lv` MōY Ktg hvq | G QrovI gvQ tQvU Ae`vq Zj bvgj K tenk Lvevi MōY Kti _v`K |

`K gvfQi `w`K I Rtbi mē_ Lv` cōqvMi gvīvi mēúK®

Mo I Rb (Mōg)	`wbK Lv` `i cwī gvY (%)
1-3	15-20
4-10	12-15
11-50	8-10
51-100	5-7
>101	3-5

mēúK Lv` `Zwi

mēúK Lvevi `βfvte cōZ Kiv thēZ cvti |

K) ewYwR`K mēúK Lv` t eZgūtb temi Kvi x Dē`v`M gvfQi Lvevi ewYwR`Kfvte cōZ Kivi Rb` eū Lv` wj `w`cZ ntqtQ | GmKj KivLvbxq gvfQi eqtmi I ci wfvē Kti weirfbægv`bi Lvevi cōZ Kiv nt`Q | gvQ PwI MY Zvi Pwn`v Abhvxq evRvi t_`K msMōh Kti mntRB cKti cōqvM Ki`Z cvti b |

L) Lvgti cōZKZ mēúK Lv` t Lvgti Avgiv `fvte Lv` cōZ Ki`Z cwī | weirfbæi`bi Lv` DcKiY cōqvRb gZ fīj fvte wgvktq PwI wBR nvtZB Lv` cōZ Kti cKti cōqvM Ki`Z cvti b A_ev Lv` cōZKvi x tgvktbi mrvn`th` weirfbæ DcKiY cwī gvYgZ wgvktq Pwn`v Abhvxq `vbr`vi mēúK Lv` cōZ Ki`Z cvti b |

Lv` DcKiYmgn evRvi t_`K wktb wBR`wctj U tgvktb Øviv Lv` `Zwi Kiv mēPtq wbi v` | G t`f`f `K gvfQi Rb` wænvti Lv` `i DcKiY wgvktq `f gēj `w`K` fīj gv`bi Lv` cōZ Kiv thēZ cvti |

µ. bs	DcKi`Yi weeiY	kZKiv nvi
1	wdkwgj	20
2	tmvqieb PY®	8
3	A`UvKōv	30
4	fjēvPY®	5

µ. bs	DcKi`Yi weeiY	kZKiv nvi
5	Mēgi fym	12
6	wPUv_o/ive	5
7	mwi lvi `Lj	20
8	weUwgb wctg.	1 Mōg/tKwR

mwi lvi `Lj Lv` cōtZi 24 N`Uv cē`cwī gvYgZ cwbtZ wfvRtq ivLēZ nte AZ:ci Ab`me DcKi`Yi mē_ fīj fvte wgvktq Lv` cōtZi mgq cwib Ggb fvte wgvktZ nte thb Lvevi A`bKuv `i Kbv Lverti i gZ nq |

wfRv ej Lvevi I wctj U Lveviti i mēav Amēav

Zj bvgj Kfvte nvtZ evbtbv wfRv ej Lveviti i tPtq wctj U Lvevi mēav A`bK tenk | nvtZ `Zwi Lvevi `*Z cwbi mē_ wgtk hvq w`K` wctj U Lvevi cwbi mē_ mntR wgtk bv | ej Lvevi cKti cōqvM Ki`j Lvevi MōY cōZ`hwMzvi Kvi`Y Lvevi cwbtZ mntR Mēj hvq Ges Lveviti i AcPq nq | dtj G Ae`ūZ Lvevi cwbtZ cēP cwī`tek `tY Kti | Aciw`K

wctj U Lvevi e'envi Lt' i AcPq Kg nq Ges gvQ mntR MhY KiŃZ cvi, dtj Lt' i AwEKiŃYi nvi teŃo hvq | Zte wctj U Lvevi tNwl Z cjoġvb Ges DcKiŃYi „Yv„Y m'utK'buŃZ bv nl qvq gvŃQi KwLZ Drcv' tb AwŃŃQZvi mjo nq |

bgbvqb l m'utK Lv' cŃqM

bgbvKiŃYi gva'tg cKŃi tgvU gvŃQi Rxefi (Biomass) nmve KŃi Lv' cŃqM cwi gvY wbaŃY KiŃZ nte | bgbv msl'ni tŃŃŃ GKŃU SŃK Rvj e'envi Kiv thŃZ cvi Ges gRy NbŃZi 5-10% gvŃQi bgbv msl'ni Kiv DEg | aZ gvŃQi Mo l Rb tei KŃi Ges gvŃQi eŃPvi nvi 90% aŃi tgvU Rxefi wbyŃ KiŃZ nte | 'K gvQ Pvl i tŃŃŃ ŃwbK cŃvRbxq Lvevi mgvb wZbfvM KŃi mKvj, 'cj l weKvtj cŃqM KiŃZ nte | gvŃQi AvKvi 30 MŃg ntj tgvU Lv' tK 'Ń f'vM KŃi mKvj l weKvtj cŃqM KiŃZ nte | cŃZ 15 w b AŃŃ gvŃQi bgbvqb KŃi gvŃQi Rxefi cwi gvc KŃi Lv' mgŃŃ KiŃZ nte |

cKŃi Lv' cŃqM Kivi c'wZ

wŃgŃc DcvŃq cKŃi Lv' cŃqM Kiv thŃZ cvi t

- mg'cKŃi mgvb f'vte wŃwŃq cŃqM Kiv
- wbaŃŃ Z 'vŃb cŃqM Kiv
- Lv' vbxŃZ cŃqM Kiv | Lv' vbxŃ msl'v cKŃi gRy KZ gvŃQi msl'v l AvKvti i l ci wŃwE KŃi wK KiŃZ nte |
- Lvevi GKŃU wŃ'ahyŃ e'vŃM fŃi cwbŃZ SŃj Ńq t'qv |

cKŃi Lv' cŃqM mgq wŃP DŃj wLZ wcl qvej x Abjmi Y Kiv cŃqvRb t

- Lv' cŃqM Rb' mŃeavgZ th tKvb GKŃU ev 'yŃi wŃk'c'wZ Abjmi Y Kiv thŃZ cvi | Kvi Y w'gvb me c'wZi wKŃymŃeav Ges AmŃeav iŃŃŃ |
- Lv' cŃZw' b wŃw' Ń mgŃq, wŃw' Ń 'vŃb cwi wŃZ cwi gvY cŃqM KiŃZ nte
- cwb AvZwi Ń meR ev 'wŃ Z ntq cotj ev eŃŃ ntj Lv' cŃqM KgvtZ nte
- gvQ th tKvb KviŃY wŃob (Stress) Ae'vi mjo ntj Lv' cŃqM KwŃŃq w'ŃZ nte Ges cŃqvRŃb eŃ KŃi w'ŃZ nte | Ab'vq Lv' AcPq ntq cwi Ńek wŃbŃ KiŃe |

Lv' 'vgRvZ Ki Y

m'utY' vbr'vi Lv' 'ZwiŃZ Lv' DcKiY 'vgRvZKiŃYi cŃqvRb | 'vgRvZKiŃYi mgŃq Lv' DcKiŃYi l Rb, 'YMZgvb Ges mŃeŃcwi A'ŃwZK ŃwZ ntZ cvi | GRb' mŃŃvŃe 'vgRvZKiY Avek'K | Lv' DcKiY 'wŃ 'vgRvZKiŃYi mgq wŃPwŃ wLZ wcl q'wŃ wetePbvq i vLŃZ nte t

ZvcgvŃv t AwZwi Ń ZvcgvŃvq msi wŃZ Lt' i cjoġvb nvm cvq | AYR'xmgn 26-37µ tm. ZvcgvŃv f'j RbŃŃZ cvi Lt' i ŃwZ m'vab KŃi

Av'Zvi cŃve t Lt' i Av'Zvi cwi gvY 10 l Av'cŃŃK Av'Zv 65 kZvŃki tenk vKŃj ŃŃvK/tcvKv-gvKo tenk RbŃŃZ cvi Ges ZŃ' i kixŃi cŃPK im (GbRvBg) Lt' i 'YMZgvb bŃ KŃi |

mŃwK 'vgRvZKiŃYi Dcvq

K) i Kbv wctj U Lv' l Lv' Dcv' vŃbi tŃŃŃ -

- cwi 'vi i Kbv l chŃŃ evZvm Pj vPj KŃi GŃfcGŃfc NŃi Lv' gRy Kiv thŃZ cvi
- mi vmi mŃhP AvŃj vŃZ Lv' msi ŃŃY Kiv hvŃe bv
- tŃŃŃ t'ŃK 15-20 tmg. DŃi Kw ev eŃŃki gvPvi DŃi Lv' msi ŃŃY KiŃZ nte
- wZb gvŃmi tenk Lv' ev Lv' DcKiY 'vgRvZ KŃi i vLv mgxPxb bq |

L) Av'ŃŃRv Lt' i tŃŃŃ -

- wŃRv Lvevi 'Zwi Kivi mŃŃ mŃŃ cKŃi cŃqM e'e'v KiŃZ nte, tenk mgq msi ŃŃY KiŃj Lvevi cŃP 'MŃ Ńovq Ges Lt' i Lv' gvŃ bŃ ntq hvq, wŃRv mŃi l vi 'Lj KŃŃK w' b i vLŃj 'LŃj i cjoġ Dcv' vb tŃŃŃ LwbRvqb NŃU Ges GB 'Lj ZLb Lv' wŃŃŃe e'envi DŃŃRvMx vŃK bv |
- wŃUwgb l LwbR j eYmgn Kvtj v cvŃŃ evqyi b' Ae'vq msi ŃŃY KiŃZ nte |

Awatekb cwi Kí bv

w`b t 03

mgq t 10.00-11.00

tgqv`Kvj t 60 wgvbU

wk`ti vbg	t`K gvQ Pvl i cK`ti i cwbi e`e`vcbv, tivM I Sjk wbyq
Afxó`j	t grm`Awa`Bti i KgRZ@e`
j`j`	t c`k`j`Yv_`i` i`K gvQ Pvl i cwbi e`e`vcbv, tivMi j`j`Y, ciZKvi I Sjk e`e`vcbv I ci Ávb ep`x Kiv nte hv`Z Zviv AwRZ`Ávb Pwl`i` i gv`S h_vh_fvte`v`v`š`i` K`ti gvQ Pvl ep`x`Z mnvqZv Ki`Z cv`i`
D`i`k`	t G Awatekb tk`i` c`k`j`Yv_x`j`Y- <ul style="list-style-type: none"> • `K gvQ Pvl i cK`ti i cwbi e`e`vcbv Ki`Z cv`i`eb • `K gvQ Pvl w`v`f`b`e`S`j`k` m`e`u`ú`K`e`j`Z cv`i`eb • `K gv`Q`i` tivMv`v`š`-nl qvi Kvi Ymgn e`v`L`v Ki`Z cv`i`eb

wel qm`P	Avtj v`P` wel q	c`k`j`Y t`K`š`j	mgq
f`g`K`v			5 wgvbU
	<ul style="list-style-type: none"> • `v`M`Z`g • ce@Zx`Awatek`bi cpi`vtj`v`P`v • eZ`g`v`b Awatek`bi I ci Avtj`v`K`c`v`Z • D`j`x`K`i`Y 	e ³ Zv I c`k`k`E`i	
wel q e`v`			50 wgvbU
	<ul style="list-style-type: none"> • cwbi`f`i`Yi Kvi Y • cwbi`f`i`Y Ki Yxq • el`f`K`v`j` x`b` S`j`k` • i`@`t`g`š`m`t`g`i` S`j`k` • kx`Z`K`v`j` x`b` S`j`k` • Ab`v`b` S`j`k` • tiv`Me`w`ai Kvi Y Ges ciZKvi 	e ³ Zv, c`k`k`E`i, gj ³ w`P`š`vi So, `j`x`q Kiv`R` Ges w`d`e`P`v`U`c`ú`k`b	
mvi`-mst`j`c			5 wgvbU
	<ul style="list-style-type: none"> • gj` wel`q`m`g`š`ni` cpi`vtj`v`P`v • D`i`k` hv`P`v`B • n`v`E`Av`DU`w`e`Z`i`Y • cieZ`P`Awatek`bi`mvt`_`mst`hv`M • ab`ev`Á`v`cb`I`w`e`v`q 	c`k`k`E`i	
c`k`j`Y mnvqK mvgM` t teW`g`v`K`f` , w`b`D`R`v`c`ú` , w`d`e`P`v`U`c`ú`K`Z`e`v` , n`v`E`Av`DU`B`Z`w`			

wdePvU©cwi Kí bv

<p>ůks l gv, i gvQ Pvl i cKři cwb, řivM l SřK e'e'rcbv</p>	<p>cwb `řřYi KviY</p> <ul style="list-style-type: none"> • gvřQi gj gř • Lverři i Dř'Qóvsk • dvBřUvcřsUřbi AcgZř • cPř Lv` cKři cřřqM
<p>cwb `řřY KiYřq</p> <ul style="list-style-type: none"> • cwb cwi eZř • Pb cřřqM • řRřj vBU cřřqM • AYřre bvK K cřřqM 	<p>gvřQi cřř Pwř`v</p> <ul style="list-style-type: none"> • avbx řcvbi Awgřl i Pwř`v 40% • Ařřj řcvbi Awgřl i Pwř`v 35% • eq`ř gvřQi Awgřl i Pwř`v 30% • Lvř`i me Dcv`řb kKřv, Awgř l PřeDcw`Z _řřK
<p>SřK e'e'rcbv</p> <ul style="list-style-type: none"> • elřKřj řb SřK • i`ř tgřřřgi SřK • křZKřj řb SřK • Ab`řb` SřK 	<p>řivM e`wři KviY Ges cřřZKvi</p> <ul style="list-style-type: none"> • křřZ Mřřř řřZ řivM • mř`v`řM řivM • cřřZKvi řřřřř Pb cřřqM • řRřj vBU cřřqM • cwb cwi eZř

wdcPvU`cwi Kí bv

<p>wks I gv_ui gv_tQi AvniY I evRvi RvZKiY</p>	<p>gvQ Avni_tYi wmxvš-Mh_tYi c_te_qeteP` weql</p> <ul style="list-style-type: none"> • evRvi `i hvPvB Kiv • tμZv wba_tY Kiv • tR_tj I Rvj wK Kiv • cwi enb e_e~v wK Kiv • c_tk_ti we`g_vb Rj R AvMvQv I Wj cvjv (hw` _v_tK) Ac_mviY Kiv • gvQ cwi gv_tci Rb` Dch_y cwi gv_cK h_tš_j e_e~v Kiv • gvQ Rxeš-Ae_vq evRvi RvZ Kivi Rb` K_tU_bvi (W_tg) e_e~v Kiv • gvQ AvniY K_ti c₀w_gK f_vte Rxeš- msi_tYi Rb` c₀qvRbxq t_bU_i nvcv m_sM_h Kiv • gvQ c_wKs I cwi enbK_jxb msi_tYi Rb` cv_t Ges eid m_sM_h Kiv
<p>gvQ Avni_tYi mgq</p> <ul style="list-style-type: none"> • Vv_Ev I cwi ~vi Avenv_t qvq gvQ aiv • t_fv_ti gvQ aiv • `_ti i Rb` gvS i_vtZ gvQ aiv • evR_ti t_c0_tYi tek c_te_qgvQ bv aiv 	<p>gvQ AvniY c_xwZ</p> <ul style="list-style-type: none"> • t_io Rvj c_xwZ • S_wk Rvj c_xwZ • c_wb w_b⁰v_kb c_xwZ
<p>gvQ AvniY ciemZ_qvR t</p> <ul style="list-style-type: none"> • cwi ~vi c_wb_tZ t_vqv • c_w0_k W_tg cwi enb • t_QvU eo evQvBKiv 	<p>LvZ I qvix e_tq_i w_mv_e</p> <ul style="list-style-type: none"> • c_tk_i f_vov • P_b μq • t_cv_b μq • L_v ` μq • Ab_vb_v e_tq • cwi enb LiP
<p>Av_tq_i w_mv_e</p> <ul style="list-style-type: none"> • gj c₀R_wZi gvQ we_μq t_tK Avq • m_w_ c₀R_wZi gvQ t_tK Avq 	

ĀK gvřQi AvniY, evRvi RvZKiY I Avn_R weřkřY

gvQ AvniY I evRvi RvZKiY

gvQ AvniY t ĀK gvQ Pvl i c×ůZ můWKřvřte cwi Pwřj Z nřj Pvl i 90-100 ůřb gvQ evRvi RvZ KiřYi DcřhvMx nq Ges Gmgřq gvřQi Mo I Rb 90-110 Mřg nřq ůřK| gvřQi AvKvi I Rb, gvřQi evRvi Āi, Pwř mn Ab'rb' SůK Ges weřkl Kři cřKři gvřQi aviYřgZv (Carrying Capacity) weřPbvřq tiřL gvQ AvniY I evRvi RvZKiřYi m×vřš-ůřZ nře| evRvi RvZKiřYi Rb' řcři Z gvřQi ůYMZ gvb AůaK mgq řvj ivLv i Rb' gvQ AvniřYi 1 ůřb cře'Lv i cřqvM eŮ ivLv DřPZ| gvQ Pvl i cřKři AůaK NbřZ; gvQ ůřKřj gvQ evRvi RvZKiřYi cře' ůřb Rvj řŮřb gvQ aři řŮřo ůřZ nře, Gi dřj evRvi RvZ Kivi mgq gvřQi gZi nvi Křg hvře|

gvřQi evRvi Āi t gvřQi evRvi Āi weřřbřGj vřvř I FZřZ Kg řeůk nřq ůřK| j vřřBk řvřgi cřZ řLqvř tiřL gvQ evRvi RvZ Kiv DřPZ| gvřQi evRvi Āi řvj cvl qvi Rb' gvQ aivi AvřMB řřki eo evRvi mgřn řhvřřhvřM řvcb Kři evRvi Āi hvřvB Gi e'e'v KiřZ nře Ges evRvi mgřn Rxeř-gvQ řŮřv eo evRvB Kři (Grading) cvřřbvi e'e' Kiv řMřj AůaK gř' cvl qv hvřq|

AvniY cře'Ki Yřq Kiv

gvQ AvniřYi m×vřš-MřřřYi cře'řbřP Dřj řēZ řeql mgn weřPbv Kiv cřqvRb t

- evRvi Āi hvřvB Kiv
- řμZv řbafřY Kiv
- řRřj I Rvj ůWK Kiv
- cwi enb e'e'v ůWK Kiv
- cřKři we'řgvb Rj R Avřvřv I Wřj cvřv (hv' ůřK) AcřviY Kiv
- gvQ cwi gvřci Rb' Dchřř cwi gvřK hřřj e'e'v Kiv
- gvQ Rxeř-Ae'řq evRvi RvZ Kivi Rb' KřřŮbvi (Wřg) e'e'v Kiv
- gvQ AvniY Kři cřůgK řvřte Rxeř-ůsi řřřYi Rb' cřqvRbřq řbřři nvcv řsMřř Kiv
- gvQ c'ůks I cwi enbKřj řb řsi řřřYi Rb' cvř Ges ei d řsMřř Kiv|

gvQ AvniřYi mgq

Vřvř Ges cwi'vi Avnřv qřq gvQ aiv DřPZ| weřkl Kři řbKŮeřZ'evRvi cůřřbvi řřřř řřřř řřřř Ges řēZ'evRvi i Rb' gřS i řřZ gvQ AvniřYi e'e'v KiřZ nře| evRvi i Dchřř mgřqi tek cře'gvQ aři ivLv DřPZ bq|

gvQ AvniY c×ůZ

cřKři i AvřZb ev gvQ AvniřYi cwi gvřYi I ci řřřř Kři B AvniY c×ůZ I AvniY ři řvř ůb'eřřb Kiv hvřq| gvQ cřvřZ řēZb řvřte/ři řvř ůřq AvniY Kiv hvřq t

- K) řeo Rvj t hv' cřKři i AvřZb eo nq Geq řeůk cwi gvřY gvQ evRvi RvZ KiřZ nq Zvřřj řeo Rvj e'eni Kivř DĒg| Gřřřř řeo Rvřj i dřřmi AvKvi 1/4 BůĀ nř qv DřPZ| Rvřj i cř' cůři Mřři Zvi řŮřY Ges cřKři i řřřř řřřř řřřř nř qv cřqvRb|
- L) SůK Rvj t hv' Kg cwi gvřY gvQ aiv řēZ nq Zvřřj SůK Rvj řvřv gvQ aiv DřPZ| gvQ aivi 10-15 ůgřbŮ AvřřM ůKŮy Lv i řřj gvQ aiv řnR nq|
- M) cůřb řmP/řb'řkřb t weřkl Kři řēřY'AvniřYi řřřř Gc×ůZ AZ'ř-Křvřři| ĀK gvQ AvniřYi mgq cřůgK řvřte řeo Rvj ůřq AůaKřk gvQ aivi ci, cůřb řb'řkřb i e'e'v Kři řēřY'gvQ aiv řēZ nře| cřKři řmP řēřY'gvQ řnřř aivi Rb' cřKři cřřřZi mgq cřKři i GK ůřř Křj řGes gřS ei vei cwi Lv Lbb Kři ivLv DĒg|

gvQ AvniY ci eWZ^QKvR

cKⁱ t₁K gvQ aivi ci cwi`vi cwb 0viv tašZ Kiv tk^t | `K gvQ mⁱ Avⁱ tRb gvⁱvq tek wKQymgq tetP_vKtZ cv^ti ZvB aivi ci gv^tQi cwi gvc K^ti c^woK W^ttg cwi gvYgZ cwb^tZ gvQ wRB^tq cwi enb l evRvi RvZ Kiv th^tZ cv^ti | Kv^tQ wKsev`^ti me evR^ti Gf^vte gvQ cvV^tj gv^tQi_v YMZ gvb fvj_v v^tK Ges Awak g^tj_v w^eμq Kiv m^ee nq |

GKevi `K gvQ Pr^tli ci H GKB cK^ti gvQ Avni^tYi ciciB Avevi `K gvQ Pvl Kiv tKvb fv^teB D^wPZ bq | `K gvQ Pr^tli ci ch^oμtg (Crop Rotation) Ab^v gvQ thgb tZj w^cqv Pvl Kiv th^tZ cv^ti | Pr^tli cK^ti Zjvi R^tg_v K^vtjv K^v v (Black Soil) Z^tj me^ri t^qtZ t^qv th^tZ cv^ti | `K gvQ GKwU m^y r^yRb^wc^o gvQ Ges G gv^tQi e^vcK m^eebv i^tq^tQ | w^et^tkl gvQwU P^wn^v c^oi Ges B^tZv^ta^v iBwb^v iⁱ n^tq^tQ | gvQwU Pr^tli Avay^oK c^hμ^o m^ec^hvi^tYi Kv^hRⁱ c^t t^qc M^oY Kiv tM^tj c^ovR Aw^gt^l i P^wn^v cⁱY, Kg^fs^v b m^omⁿ e^t w^kK gj^t AR^o m^ee nte |

`K gvQ Pr^tli Aw^oR w^etk^oY

GK GKⁱ cK^ti D^ci D^tj w^eZ c^wU^tZ gvQ Pr^tli m^ee^v Drc^v b l Avq-e^tqi w^mve

μ ^o gK bs	w ^e eiY	UvKvi cwi gvY
K)	e ^o q	
01	cK ⁱ ms ^v i/fvov (6 gv ^t mi Rb ^v)	8,000.00
02	`K gv ^t Qi tcvb ^v 40,000 wU (b ^v m ^o i tZ jvj ^t bi ci 30,000 wU c ^o vB w ^b oZ Kivi Rb ^v)	60,000.00
04	w ^m j fvi/KvZj 150 wU	1,500.00
05	Pb 250 tK ^w R	2,000.00
09	gv ^t Qi Lv ^v (c ^o q 3,500 tK ^w R)	87,500.00
10	cwi ewi K k ^t j, k ^o gK gRjx, Ab ^v vb ^v	20,000.00
11	cwi enb LiP	20,000.00
tgvU LiP (K)		1,99,000.00
L)	Avq	
01	`K gvQ w ^e μq (evPvi nvi 70% Ges 13 wU ^t Z tK ^w R a ^t i Ges evRvi `i @ 180/- w ^m ve)	2,90,769.00
03	w ^m j fvi/KvZj gvQ w ^e μq 200 tK ^w R (c ^o q)	11,000.00
tgvU Avq (L)		3,01,769.00
wbU jvf = (L-K) = (3,01,769.00 - 1,99,000.00) = 1,02,769.00		

Awatekb cwi Kí bv

w`b t 03

mgq t 12.15-13.15

tgqr` Kij t 60 wġnbU

<p>wkġivbvġ t ŋks I gv, i gvġQi gRġ I Lv` e'e'rcbv Afıó`j t grm` Ana` Bġi i KgRZġe`</p> <p>j ġġ t cġkġYv_ġi i ŋks I gv, i gvQ Pvl e'e'rcbvq tcvbv gRġ I Lv` e'e'rcbvi I ci Ávb ewx Kiv nġe hvġZ Zvi v AwRZ Ávb Pwġġ t i gvġS h_vh_fvġe `vbvšġ Kġi gvQ Pvl ewxġZ mġvqZv KiġZ cvġi </p> <p>Dġġk` t G Awatekb tkġġ cġkġYv_xġY- • ŋks I gv, i Gi tcvbvi gRġ NbZġwbaġY KiġZ cvġteb • ŋks I gv, i Gi tcvbv cwi enb I Aegw³ mġúġKġej ġZ cvġteb • ŋks I gv, i Gi mġúġK Lv` cġqvtMi ġi`Zje`vLv` KiġZ cvġteb • Lv` I Lv` DcKiY ġvgRvZKiY Ges cġZ wġġq ej ġZ cvġteb • mġúġK Lv` cġqvtMi gvġv Ges cġqvtMi tKŠkj mġúġKġej ġZ cvġteb</p>
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wġl qmġP	Avġj vP` wġl q	cġkġY tKŠkj	mgq
fġgKv			
	<ul style="list-style-type: none"> • `Mzg • ceġZġAwatekġbi cpġvġj vPbv • eZġvb Awatekġbi I ci Avġj vKcvZ • DġġkKiY 	<p>e³Zv I cġkġġi</p>	5 wġnbU
wġl q e`			
	<ul style="list-style-type: none"> • tcvbv gRġ nvi wbaġY • tcvbv gRġ Kvj xb KiYxq • mġġ mġúġK Lv` cġDcv`vb • Lv` DcKiY wbeġġb weteP` wġl q • gvġQi cġD Pwġ`v • mġúġK Lv` ^Zwi • bgġvqvb I mġúġK Lv` cġqvm • Lv` I Lv` DcKiY ġvgRvZKiY 	<p>e³Zv, cġkġġi, ġj³ wPŠhi So, `j xq KvR Ges wġcPvU^{cġ} kġ</p>	50 wġnbU
mvi -mġġġc			
	<ul style="list-style-type: none"> • ġj wġl qmġġni cpġvġj vPbv • Dġġk` hvPvB • n`vġAvDU wġZiY • ci ewZġAwatekġbi mġġ_ mġġhvM • ab`ev` Ávcb I wġ`vq 	<p>cġkġġi</p>	5 wġnbU
cġkġY mġvqK mġgMġ t teWġġvKġġ, wġDRwġU, wġcPvU ^{cġ} cġKZ e`, n`vġAvDU BZ`w`			

wdcPvU`cwi Kí bv

<p>^K gvtQi tcvbv gRj I Lv` e`e`vcbv</p>	<p>tcv bv gRj nvi</p> <ul style="list-style-type: none"> • YMZ gvb m`ub`tcv bv • Avav wboeo c`wZtZ gRj NbZi c`kZtK 250-30 wU • AM`ni Avav wboeo c`wZtZ gRj NbZi kZtK 400-500 wU • wmj fvi kZtK 1-2wU Qvov thtZ cvti • ^K gvtQi mvt_ mw_ dmj wntmte wks kZtK 20wU Ges gv_ i 10 wU Qvov thtZ cvti 																												
<p>tcv bv gRj Kvj xb Ki Yxq</p> <ul style="list-style-type: none"> • Qvovi c`te 1 w`icGg cUvtk tMvmj • A_ev 1 w`icGg Lv` j eY` `eb tMvmj • tcv bv Qvovi ci 10-12 NbUv cmb dtk • VvEv Avenvl qvq tcv bv Qvov • _tgvU Avenvl qv Ges epotZ tcv bv bv Qvov • tcv bv Qvovi ci tcv bv gZi nvi ch`e`Y 	<p>Lv` wvrfbaDcKi`Yi cjo gvb</p> <table border="1"> <thead> <tr> <th>Dcv`vb</th> <th>Avigl</th> <th>kKfv</th> <th>Pve°</th> </tr> </thead> <tbody> <tr> <td>Pvtj i Kbv</td> <td>11.88</td> <td>44.42</td> <td>10.45</td> </tr> <tr> <td>Mtgi fym</td> <td>14.57</td> <td>66.36</td> <td>4.43</td> </tr> <tr> <td>mvi lvi `Lj</td> <td>30.33</td> <td>34.38</td> <td>13.44</td> </tr> <tr> <td>wZtj i `Lj</td> <td>27.20</td> <td>54.97</td> <td>13.18</td> </tr> <tr> <td>wclmvgj -G tMW</td> <td>56.61</td> <td>3.74</td> <td>11.22</td> </tr> <tr> <td>eWw vgj</td> <td>63.15</td> <td>15.59</td> <td>0.56</td> </tr> </tbody> </table>	Dcv`vb	Avigl	kKfv	Pve°	Pvtj i Kbv	11.88	44.42	10.45	Mtgi fym	14.57	66.36	4.43	mvi lvi `Lj	30.33	34.38	13.44	wZtj i `Lj	27.20	54.97	13.18	wclmvgj -G tMW	56.61	3.74	11.22	eWw vgj	63.15	15.59	0.56
Dcv`vb	Avigl	kKfv	Pve°																										
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wclmvgj -G tMW	56.61	3.74	11.22																										
eWw vgj	63.15	15.59	0.56																										
<p>Lv` DcKiY wbePtb weteP` wclq</p> <ul style="list-style-type: none"> • `vbxq fvtc DcKiYmg`ni c`PhZv • DcKi`Yi cjo gvb I DcKi`Yi gj` • gvtQi Lv` v`vm ev cjo Pwin`v • Pwv i Avw`R m`wZ • D`P Lv` cwi eZB nvi • DcKi`Yi AvKvi I msi`Yi tgqv` 	<p>gvtQi cjo Pwin`v</p> <ul style="list-style-type: none"> • avbx tcvbvi AvigtI i Pwin`v 40% • A`vj tcvbvi AvigtI i Pwin`v 35% • eq`c gvtQi AvigtI i Pwin`v 30% • Lv` i me Dcv`v`b kKfv, Avigl I Pve`Dcw`Z _vtK 																												
<p>m`u`K Lv` `Zwi</p> <ul style="list-style-type: none"> • Lv` wgtj c`Z ewYwR`K Lv` • Lvgti c`Z (K) nvtZ `Zwi (L) tgwk`b `Zwi 	<p>cKti Lv` c`qvm gv`v</p> <table border="1"> <thead> <tr> <th>Mo I Rb (Mtg)</th> <th>`wbK Lv` i cwi gvY (%)</th> </tr> </thead> <tbody> <tr> <td>1-3</td> <td>15-20</td> </tr> <tr> <td>4-10</td> <td>12-15</td> </tr> <tr> <td>11-50</td> <td>8-10</td> </tr> <tr> <td>51-100</td> <td>5-7</td> </tr> <tr> <td>>101</td> <td>3-5</td> </tr> </tbody> </table>	Mo I Rb (Mtg)	`wbK Lv` i cwi gvY (%)	1-3	15-20	4-10	12-15	11-50	8-10	51-100	5-7	>101	3-5																
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<p>bgbvqb I m`u`K Lv` c`qvm</p> <ul style="list-style-type: none"> • bgbvq`bi gra`tg tgvU Rxfi wbi`cb • c`Z 15 w`b cici bgbvqb <p>Lv` c`qvm c`wZ</p> <ul style="list-style-type: none"> • mg`-cKti mgvb fvtc wQuUtg c`qvm Kiv • wba`ni Z `vtb c`qvm Kiv • Lv` vbxZ c`qvm Kiv Lv` vbx msL`v cKti gRj KZ gvtQi msL`v I AvKvti I ci wfvE Kti wK Ki`Z nte • Llevi GKwU wQ``h` e`vtM fti cwb`Z Svj tq t`qv 	<p>Lv` c`qvm Abni Yxq wcl qvj x</p> <ul style="list-style-type: none"> • m`earRbK th tKvb GKwU ev`wU c`w w`k`c`wZ AbniY Kiv • c`Z w`b w`w` `vtb cwi w`Z cwi gvY Lv` c`qvm Kiv • cmb AvZwi` meR ev`wZ ntj Lv` c`qvm bv Kiv • epoi mgq Lv` c`qvm bv Kiv • gvtQi cxob Ae`vq Lv` c`qvm bv Kiv 																												
<p>Lv` `vgRvZKiY</p> <ul style="list-style-type: none"> • AnaK Zvcgv`vq Lv` msi`Y bv Kiv • Av` `vtb Lv` msM` bv Kiv • t`gtStZ Lv` msi`Y bv Kiv • i`Kbv I Av`j v evZim h` `vtb Lv` I Lv` Dcv`vb mO`i`Y Kiv • wFRv Llevi t`wk mgq gRj bv i`Lv 																													

История географических исследований в Республике Беларусь

История географических исследований

История географии

Географические исследования в Республике Беларусь имеют давнюю историю. Впервые географические сведения о территории Беларуси появились в летописях. В XV-XVI вв. географические сведения о Беларуси содержатся в географических сочинениях европейских авторов. В XVIII-XIX вв. географические исследования в Беларуси проводили русские ученые. В XX в. географические исследования в Беларуси проводили белорусские ученые.

География Беларуси

География Беларуси изучает природные условия территории Беларуси. Географические исследования в Беларуси направлены на изучение географического положения, территории, природных условий, населения, хозяйства и культуры Беларуси. Географические исследования в Беларуси проводятся в различных областях географии: физической, экономической, социальной, экологической и др.

История географических исследований в Беларуси

История географических исследований в Беларуси насчитывает более тысячи лет. Первые географические сведения о территории Беларуси появились в летописях. В XV-XVI вв. географические сведения о Беларуси содержатся в географических сочинениях европейских авторов. В XVIII-XIX вв. географические исследования в Беларуси проводили русские ученые. В XX в. географические исследования в Беларуси проводили белорусские ученые.

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История географических исследований

История географических исследований в Беларуси имеет давнюю историю. Впервые географические сведения о территории Беларуси появились в летописях. В XV-XVI вв. географические сведения о Беларуси содержатся в географических сочинениях европейских авторов. В XVIII-XIX вв. географические исследования в Беларуси проводили русские ученые. В XX в. географические исследования в Беларуси проводили белорусские ученые.

m`úíK Lv` cjo Dcv`vb

gvfQi t`n MVb, kw³ Drcv`b Ges wefbaekvixi eÉxq KvhÉj x m`úv`tbi Rb` Awgl, Pwe[©] kKÉv, wUwgb Ges LubR j eY AZxe cÓqvRb| gvfQi cRwZ, AvKvi, Pvfli tgSmg cÉwZ wetePbv Kti m`úíK Lv` cÓtZ cjo Dcv`vtbi gvT vbaÉY KiTz nq|

Lv` cjo Dcv`vtbi Drm

gvfQi m`úíK Lv` cÓtZ wefbaecjo Dcv`vtbi Rb` wefbaeaitbi Lv` DcKiY e`envi Kiv ntq _vtK| Lv`i Gme DcKiY cÓvbZ cÓYRvZ Ges Dw[©] RvZ Drm t`tK cvl qv hvq| Avgvt`i t`tK gvfQi Lv` cÓtZ euj fivte e`eüZ Pvfji wgunKov, Mtgi fym, Pvfji Lj, AvUv, mwi lvi `Lj, wZtji `Lj, tmvqweb wj, fjev PY[©]cÉwZ Dw[©] RvZ Ges wdmwgj, wU GÉ tevbwj Mew`c`i i³ BZ`w` cÓYRvZ DcKiY| gvfQi t`n ewx`i Rb` Awgtli fvgKv AZ`S-`i`ZcY[©] Lv` DcKiYi cjo Dcv`vb Awgl; nRg cÓuqvq tft½ GvgvBtbn GimtW ifcvšw Z ntq gvfQi kixti tkwll Z nq Ges gvfQi t`n MVtb fvgKv ivtL| m`úíK Lv` cÓYx I Dw[©] Dfq Drm ntZ Awgl cvl qv hvq| gvfQi m`úíK Lv` `Zwi i tÉtÉ cÓYR Awgtli e`envi AZ`S-ZrcheY[©] cÓYR Awgtli, Awgtli YMZgvb fuj ntq _vtK, cÓqvRbxq AZ`vek`Kxq GvgvBtbn GimWmgn we`gvb _vtK Ges mntRB nRg nq| Aciw`tK Dw[©] t`tK cÓB Awgtli cwi gvY LpB Kg| wefbaÉtel Yvi gra`tg weÁvbxiv t`tLQb th, cÓYx I Dw[©] RvZ Awgtli msugkÉY `Zwi Lv` AnaKZi DEg| gvfQi Lv` Awgtli cvkvcwk cwi gvYgZ kKÉv, Pwe[©]ev d`vU, wUwgb I LubR RvZxq cjo Dcv`vb cwi gvY gZ Aek`B _vKtZ nte| mvariYZt wks I gv`i gvQ Pvfli 30-35% Awgl mgx` Lvevi cÓqvRb| KviY wks I gv`i gvQ GB ai`tbi Lvevi tLtZ Lp cO` Kti|

Lv` DcKiY wbeÉtb weteP` wel q

Avgvt`i AnaKvsk grm` Pwll m`úíK Lvevi wntmte cÓvbZ mwi lvi `Lj, PvdÉji Kov I Mtgi fym e`envi Kti| G Qovl A`bK gvQ Pwll Ggb wKQyLv` DcKiY e`envi Ktib th`tjv Aw`R fivte jvFRbK bq, GgbwK tm`tjv A`bK mgq cKti i cwi t`tKi Rb` ÉwZKi ntq _vtK| thgb A`bK gvQ Pwll Lv`i DcKiY wntmte avtbi Zt`K Lv` e`envi Ktib hvi cjoMZ tKvb gj` bvB Ges cKti i cwi t`tKi Rb` ÉwZKi| Gme wel q Qovl t`kx kÉwK gvfQi Øviv `Zwi wdkwgj gvfQi Lv` `Zwi tZ e`envi Kivi mgq Aek`q wbuÓZ ntZ nte th, iUwK cÓtZi mgq ÉwZKi wVwWU ev Ab` tKvb ÉwZKi KxUvbkK e`envi Kiv ntqtQ wKbv| KviY Gifc ÉwZKi KxUvbkK wgun`Z wdkwgj Øviv Lv` cÓZ Ktj bwmwi I gRj` cKti i wks I gv`i gvfQi e`vcK goK t`Lv w`tZ cvti| cKti m`úíK Lv` cÓqvMi D`t`k` ntjv gvfQi AnaK Drcv`b wbuÓZ Kiv| tm KviÉY gvfQi Lv` wntmte e`envi i Rb` DcKiY wbeÉtbi mgq tek wKQywel q wetePbv Kiv DwPZ hv wbtP D`t`Kiv ntjv t

- `vbxq fivte DcKiYmgÉni cÓPhZv
- DcKiYi cjo gvb
- DcKiYi gj`
- gvfQi Lv` w`vm ev cjo Pwll`v
- Pwll i Aw`R m½wZ
- D`P Lv` cwi eZB nvi
- DcKiYi AvKvi
- DcKiY msiÉYi tgqv`|

wks I gv`i gvfQi cjo Pwll`v

`Z ewx` A`É gvfQi ewaZ Drcv`b wbuÓZ Kivi Rb` gvfQi mtg LvevÉi cÓqvRbxq Dcv`vb _vKv Avek`K| Avevi GmKj Dcv`vtbi gta` Awgtli Pwll`v tenk| gvfQi Lv` `Zwi tZ thme Dcv`vb e`envi Kiv nq Zvi cÓZ`Kw tZ Lv`i wefbaeDcv`vb thgb kKÉv, Pwe[©] I LubR j eY KgÉwK we`gvb _vtK| Gme Lv` DcKiY Øviv Awgtli Pwll`v cÉY ntj Ab`vb` cjo Dcv`vtbi tZgb tKvb Afive cwi j wÉZ nq bv| eqm wfwÉK wks I gv`i gvfQi Awgtli kZKiv Pwll`v awb I A½j tcvbv Ges eq` gvfQi Rb` h_vµtj 40, 35 Ges 30 fvm|

chikvi Lv'' c0qM gvIv

gvIvi Lv'' MhY gvIv wbfP Kti cwbi fS Z I ivmqwbK Yvej xi AbKj Ae'vi l ci | ZvcgvIv evotj gvIvi wecvKxq Kvhpitgi nvi tefo hvq| dtj Lv'' Pwn'v epx cvq| GKBfvte cwbi ZvcgvIv Ktg tMtj Lv'' Pwn'v l Ktg hvq| cwbi ZvcgvIv 10p tm. Gi tewk ntj Lv'' MhY gvIv w'Y ntq hvq, GKB fvte ZvcgvIv 10p tm. Ktg tMtj gvIvi Lv'' MhY nvi AfaK tbtg qvq| cbi wGBP 7-8.50 l cwbtZ 'tefZ Aw tRtbi gvIv evotj gvIvi Lv'' Pwn'v epx cvq| weciZfvte wGBP l Aw tRtbi gvIv Ktg hvevi KvitY Lv'' MhY Ktg hvq| G Qovl gvQ tQvU Ae'vq Zj bvgj K tewk Lvevi MhY Kti 'vK|

wks l gv, i gvIvi 'wK l Rtbi mvt_ Lv'' c0qvtMi gvIvi m'uK©

Mo l Rb (M0g)	'wK Lv'' i cwI gvY (%)
1-3	15-20
4-10	12-15
11-50	8-10
51-100	5-7
>101	3-5

4.6. m'uK Lv'' ^Zwi

m'uK Lvevi 'Bfvte c0Z Kiv thZ cvti |

K) ewYwR'K m'uK Lv'' t eZ0vte temi KwI D'v'vM gvIvi Lvevi ewYwR'K fvte c0Z Kivi Rb' eU Lv'' wj 'wcz ntqtQ| GmKj Kiv Lvbvq gvIvi eqtmi l ci wfvE Kti wevfbregvtbi Lvevi c0Z Kiv nt'Q| gvQ PwI MY Zvi Pwn'v Abhvqx Lv'' evRvi t'K mS Mh Kti mntRB chikvi c0qM KiZ cvtib |

L) Lvgvti c0ZKZ m'uK Lv'' t Lvgvti Avgiv 'fvte Lv'' c0Z KiZ cwI | wevfbreaitbi Lv'' DcKiY c0qRb gvndK GKt' fvj fvte wgvktq PwI wR nvtZB Lv'' c0Z Kti chikvi c0qM KiZ cvtib A_ev Lv'' c0ZKiv tgvkb Gi m'vth' wevfbreDcKiY cwI gvYgZ wgvktq Pwn'v AYhvqx 'vbi m'uK Lv'' c0Z KiZ cvtib |

Lv'' DcKiYmgv evRvi t'K wKtb wR'wctjU tgvkb 0vivi Lv'' ^Zwi Kiv metPtq wbi'c | G t'it' wks l gv, i gvIvi Rb' wbenvti (Composition) Lv'' i wevfbreDcKiY wgvktq 'f g'j' wK' fvj gvIvi Lv'' c0Z Kiv thZ cvti |

μ. bs	DcKivYi weeiY	kZKiv nvi
1	wdkwvj	20
2	tmvqwb PY©	8
3	A'UvK0v	30
4	fjEvPY©	5

μ. bs	DcKivYi weeiY	kZKiv nvi
5	Mtgi fym	12
6	wPUv_o/ive	5
7	mwi lvi ^Lj	20
8	wfUwgb w0g-	1 M0g/tKwR

mwi lvi ^Lj Lv'' c0Zi 24 N0v cteB cwI gvYgZ cwbtZ wfvRtq ivL'Z nte AZ:ci Ab' me DcKivYi mvt_ fvj fvte wgvktq Lv'' c0Zi mgq cwI Ggbfvte wgvktq nte thb Lvevi A'bkUv 'i Kbv Lvevti i gZ nq |

bgbvqb l m'uK Lv'' c0qM

bgbvKivYi gva'tg chikvi tgvI gvIvi Rxfi (Biomass) wmvve Kti Lv'' c0qvtMi cwI gvY wba'Y KiZ nte | bgbv mS Mhni t'it' GKwI SwwK Riv e'envi Kiv thZ cvti Ges grj NbtZi 5-10% gvIvi bgbv mS Mh Kiv DEg | az gvIvi Mo l Rb tei Kti Ges gvIvi ew'vi nvi 90% atj tgvI Rxfi wYq KiZ nte | wks l gv, i gvQ Prli t'it' 'wK c0qRbxq Lvevi mgvb wZb'vM Kti mKvj, 'y'j l weKvtj c0qM KiZ nte | gvIvi AvKvi 30 M0g ntj tgvI Lv'' tK 'B fvM Kti mKvj l weKvtj c0qM KiZ nte | c0Z 15 w' b A's' gvIvi bgbvqb Kti gvIvi Rxfi cwI gv'c Kti Lv'' mg'sq KiZ nte |

cKti Lv` c0qM Kivi c×wZ

wbgi:fc cKti Lv` c0qM Kiv thtZ cvti-

- mg`-cKti mgvb fvte wQwUtg c0qM Kiv|
- wbaWi Z`vfb c0qM Kiv|
- Lv`vbxZ c0qM Kiv| Lv`vbx msLv` cKti gRj KZ gvtQi msLv` I AvKvti i I ci wfvE Kti wK KiZ nte|
- Lvevi GKwU wQ`ahp e`vM fti cwbtZ Sij tq t`qv|

cKti Lv` c0qM mgq wbtP Dti wZ wv qvej x Abjni Y Kiv ctqvRb t

- Lv` c0qM Rb` mjeavZ th tKvb GKwU ev`yUi wga`c×wZ Abjni Y Kiv thtZ cvti | Kvi Y we`gvb me c×wZi wKQymjeav Ges Amjeav i tqtQ|
- Lv` c0Zw` b wv`0 mgta, wv`0`vfb cwi wvZ cwi gvtY c0qM KiZ nte|
- cwv AwZwi`3 meR ev`yl Z ntq cotj ev`ej ntj Lv` c0qM KgtZ nte|
- gvQ th tKvb Kvi tY cxob (Stress) Ae`vi mgy`xb ntj Lv` c0qM Kwgtq w`tZ nte Ges c0qvRtb Lv` t`qv eU Kti w`tZ nte| Ab`vq Lv` AcPq ntq cwi tek wvbo Ki te|

Lv` v`vgRvZKiY

mavY`vbi Lv` ^Zwi tZ Lv` DcKiY v`vgRvZKi tYi c0qvRb| v`vgRvZKi tYi mgta Lv` DcKi tYi I Rb, v`YMZgvb Ges mtevcwi A`bwZK v`wZ ntZ cvti | GRb` mofvte v`vgRvZKi Y Avek`K|

Lv` DcKiY v`tj v`v`vgRvZKi tYi mgq wbtPwv wLZ wv q`wv wvtePbvq ivL tZ nte t

Zvcgv t AwZwi`3 Zvcgv vq msi wvZ Lv` i cyogvb nvm cvq| AYRiemgn 26-37u tm. Zvcgv vq fij RbtZ cvti Ges Lv` i v`wZ mvab Kti |

Av`Zvi cive t Lv` i Av`Zvi cwi gvY 10 I Av`cuv`K Av`Zv 65 kZvstki tenk v`Ktj QvK/tcvKv-gvKo tenk RbtZ cvti Ges Zt` i kixti i cvPK im (GbRvBg) Lv` i v`YMZgvb bo Kti |

mWk v`vgRvZKi tYi Dcvq

K) i Kbv wctj U Lv` I Lv` Dcv`vbi t`tt`-

- cwi`vi i Kbv I chp evZvm Pj vPj Kti Gifc Nti Lv` gRj Kiv thtZ cvti |
- mi vmi mthP Avtj vZ Lv` msi vY Kiv hvte bv|
- tqtS t`tk 15-20 tmwg. Dcti Kw ev`etki gvPvi Dcti Lv` msi vY KiZ nte|
- wZb gvtmi tenk Lv` ev`Lv` DcKiY v`vgRvZ Kti ivLv` mgxPxb bq|

L) Av`vFRv Lv` i t`tt`-

- wFRv Lvevi ^Zwi Kivi mv`_ mv`_ cKti c0qvM e`v KiZ nte, tenk mgq msi vY Kij Lvevi ctP`M0 Qovq Ges Lv` i Lv`gvb bo ntq hvq| wFRv mwi lvi ^Lj KtqKw`b ivL tJ ^L tJ i cyo Dcv`vb tft` LvbRvqb NtU Ges GB`Lj ZLb Lv` wntmte e`envi DcthvMx`v`K bv|
- wFUwgb I LubR j eYmgn Kvtj v cvt` evqy`i b` Ae`vq msi vY KiZ nte|

Awatekb cwi Kí bv

w' b t 03

mgq t 13.15-14.00

tgqv` Kvj t 45 wgvbU

wk' t' vbg	t wks l gv, i gvQ Pvl i cK' t' i cwbi e'e'vcbv, ti vM l Sjk e'e'vcbv
Afxó `j	t grm' Awá B' t' i KgRZ'e,
j 'j	t ciklji Yv_ e' i wks l gv, i gvQ Pvl cwbi e'e'vcbv, ti v' Mi j 'j Y, cikZKvi l Sjk e'e'vcbv l ci Ávb ep' x Kiv nte h' t' Z Ziv AwRZ Ávb Pw' t' i gv' S h_vh_fv' te 'v' b' s' t' K' t' i gvQ Pvl ep' x' t' Z mnvqZv Ki t' Z cv' t' i
D' t' k'	t G Awatekb t' k' t' l ciklji Yv_ x' j Y- <ul style="list-style-type: none"> • wks l gv, i gvQ Pvl i cK' t' i cwbi e'e'vcbv Ki t' Z cv' t' eb • wks l gv, i gvQ Pvl w' e' f' b' e' Sjk m' e' u' t' K' e' j t' Z cv' t' eb • wks l gv, i gv' Q' i ti v' M' v' s' -n' l qvi Kvi Ymg' n e' v' L' v' Ki t' Z cv' t' eb

wel qm' P	Av' t' j v' P' wel q	ciklji t' K' s' k' j	mgq
f' w' g' kv			5 wgvbU
	<ul style="list-style-type: none"> • ' MZg • ce' e' Z' v' Awatek' t' bi c' p' i v' t' j v' P' v • eZ' g' v' b Awatek' t' bi l ci Av' t' j v' K' c' v' Z • D' o' x' K' i Y 	e ³ Zv c' o' k' u' e' i	
wel qe' -'			35 wgvbU
	<ul style="list-style-type: none"> • cwbi ` t' t' Y' i Kvi Y • cwbi ` t' t' Y' Ki Y' x' q • el' R' k' v' j x' b Sjk • i' e' t' g' s' m' t' g' i Sjk • k' x' Z' K' v' j x' b Sjk • Ab' v' b' Sjk • ti v' Me' w' ai Kvi Y Ges cikZKvi 	e ³ Zv, c' o' k' u' e' i, g' j' b' w' p' s' - vi So, ` j' x' q' K' v' R' Ges w' d' e' P' v' U' c' o' k' e' i	
mvi -m' s' t' j' c			5 wgvbU
	<ul style="list-style-type: none"> • g' j' wel qm' g' t' ni c' p' i v' t' j v' P' v • D' t' k' h' v' P' v' B • n' v' E' Av' DU w' e' Z' i Y • ci e' w' Z' Awatek' t' bi m' v' t' _ m' s' t' h' v' M • ab' e' v' Á' v' c' b l w' e' v' q 	c' o' k' u' e' i	
ciklji mnvqK m' v' g' M' t' t' e' w' g' v' K' e' i, w' b' D' R' w' c' u' , w' d' e' P' v' U' c' o' k' Z' e' -', n' v' E' Av' DU BZ' w'			

wdcPvU`cwi Kí bv

<p>ˆK gvQ Pv†li cK†i cwb, tivM I S†K e`e`vcbv</p>	<p>cwb `††Yi Kvi Y</p> <ul style="list-style-type: none"> • gv†Qi gj g† • Lve†i i Dw`Qóvsk • dvB†Uvc`vsU†bi AcgZi • cPu Lv` cK†i c†qvM
<p>cwb `††Y Ki Yxq</p> <ul style="list-style-type: none"> • cwb cwi eZ† • Pb c†qvM • vRqj vBU c†qvM • AYRxe bvkK c†qvM 	<p>gv†Qi cyó Pwin`v</p> <ul style="list-style-type: none"> • avbx tcbvri Awg†li i Pwin`v 40% • A½yj tcbvri Awg†li i Pwin`v 35% • eq`c gv†Qi Awg†li i Pwin`v 30% • Lv`†i me Dcv`v†b kK†v, Awg† I Pve`Dcw`Z _v†K
<p>S†K e`e`vcbv</p> <ul style="list-style-type: none"> • eI†Kvj xb S†K • i`†c†gsm†gi S†K • kxZKvj xb S†K • Ab`vb` S†K 	<p>tivM e`wai Kvi Y Ges c†ZKvi</p> <ul style="list-style-type: none"> • k†Z M††q ††Z tivM • mv`v`vM tivM • c†ZKvi w††m†e Pb c†qvM • vRqj vBU c†qvM • cwb cwi eZ†

uks l gv, i gvQ Prtl i cKt'ii cmbi e'e'vcbr, tivM l SJK e'e'vcbr

uks l gv, i gvQ Prtl i cKt'ii cmb e'e'vcbr

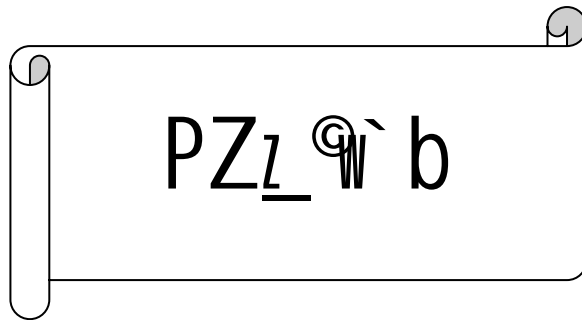
uks l gv, i gvQ Prtl i t'q't' c'izw b wbcqgZ nvti Awgl mgx Lvevi c'qvm Kivq gvt'Qi gj g' Ges Lvev'ti Dw'Qo cwb'tZ ctP cmbi bvB'tU't'Rb NuUZ 'Re c'vt'_P Dcw'wZ teto hvq dtj gvQ b'bv c'Kvi mgm'vi m'q'xb ntq _vtK Ges gvt'Qi gZ'i KviY ntq t' Lv w'tZ cv'ti | A'tbK mgq AmpZbzveKZ ctP hvl qv Lv' DcKiY gvt'Qi c'Kt'ii t' qv nq | AwAK ctP hvl qv Gme 'Re 'e' c'Kt'ii t' qv mgxPxb bq | KviY G'tZ c'Kt'ii cmbi cwit'ek bo K'ti Aw t'Rb NuUwZmn gvt'Q DK'tbi esk we'vi NuVq Ges G't' Avmu'tb gvt'Qi Rxeb hv'lv e'v'nZ nq | G'ovovl c'Kt'ii 'Re Dcv'vt'bi ep'xi Kvi'tY c'v'UmbK eg-NU'Z cv'ti Ges GK ch'q c'w'U't'bi h_vh_ cwit'ek we'v'Z nq Ges c'v'KU't'bi AcgZ'i NuVq, dj k'U'Z'tZ c'Kt'ii cmbi m'we'K cwit'ek'i g'iv'Z'K wech'q N'tU Ges gvt'Qi gZ'i KviY ntq 'vovq | Gi'c cwit'ek c'U'tg gvt'Qi Lv' M'hY nvi K'tg hvq, gvt'Qi ep'x t'tg hvq Ges GK ch'q e'v'c'K'v'te gvQ g'iv hvq | Gi'fc cwit'ek h'v'v'tZ bv nq tm'R't'b' cmbi is Gi Ae'v Ab'hvqx gvt'S g'ta' cwb t' qv th'tZ cv'ti, A_ev c'Kt'ii t't'K w'K'Q'cwb tei K'ti w'tq c'p'ivq cwb m's'th'm Kiv th'tZ cv'ti | uks l gv, i gvt'Qi Prl w'iv'c' ivLvi Rb' mg'tq mg'tq c'iz kZ'tK 250 M'g nvti Pb c'qvm Kiv th'tZ cv'ti | c'Kt'ii cmbi cwit'ek f'vj ivLvi Rb' eZ'g'tb evR'v'ti b'bv ai't'bi w'Rlj vBU l AY'Rie b'v'kK cvl qv hvq, h'v'v c'q'v'tM m'p'lj cvl qv hv't'Q |

uks l gv, i gvQ Prtl Ab'vb' SJK

- uks l gv, i gvQ Prtl FZ'w'f'EK w'K'Q'Y SJK _vt'K | ZvB m'w'K e'e'vcbr bv w'btj 'q'wZM' n'l qvi m'q'ebv _vt'K | Ggbw'K A'tbK mgq mg' -Pvl e'e'v u'g'w'Ki m'q'f'L co'tZ cv'ti |
- K) el'f'K'j'xb SJK t el'f'K'j'xb AwZ'ep' ev eb'v'q mg' -gvQ t'f'tm th'tZ cv'ti | nvj Kv ,w'o,w'o ep'o'tZ cw'ic'K; uks l gv, i c'Kt'ii cvo tetq Ab' T' P'tj th'tZ cv'ti | G Kvi'tY c'Kt'ii cv'toi Pw'iw't'K ev'tki ev'bv ev teov A_ev c'w' -K t'bt'Ui m'v'v'th' 1.5 d'U DP'z'K'ti te'ovb t' qv th'tZ cv'ti |
- L) i' e' t'g's'm't'gi SJK t i' e' t'g's'm't'g c'Kt'ii cwb i'w'K'tq cwb'i M'f'xi Zv K'tg th'tZ cv'ti | G'tZ cwb'i Z'vcgv'lv teto cwb'tZ 'te'f'Z Aw t'Rb 'f'Zvi m'p'o n'tZ cv'ti | GR'b' cwb t'm't'Pi g'v'a'tg c'Kt'ii cwb'i M'f'xi Zv evov'tZ n'te |
- M) kxZ'K'j'xb SJK t k'x'tZ (15° tm. Z'v'tci w'bt'P) uks l gv, i gvQ Prtl t'iv't'Mi c'f' f'le te'w' nq tm Rb' k'x't'Zi 2-3 gym uks l gv, i gvQ Prl bv KivB f'ij | Z'te G mg'tq gvQ ev t'cv'bv msi 'q't'Yi Rb' c'iz w' b t'f'v'ti w'w'c'w'UDe-l t'qj Gi cwb w'tq cwb'i Z'vcgv'lv ew'otq ivLv hvq |
- N) 'q'wZ'Ki M'v'm t Lv't' i Aen'k'ov'sk Ges gvt'Qi gj g't'i Kvi'tY c'Kt'ii Zj't'k 'q'wZ'Ki M'v'm R'tg ep'ep' i m'p'o Ki'tZ cv'ti Ges cwb'tZ 'M'f'Ui m'p'o n'tZ cv'ti | c'Kt'ii Zj't'k R'tg _v'Kv 'q'wZ'Ki M'v'm Ac'm'v'i'Yi Rb' 2-3 w'b ci ci 'c'p't'i mgq cwb'tZ t'bt'g Zj't'k Av'tj'w'oZ Kivi e'e'v Ki'tZ n'te | Kiv'R'w ni'lv t'U't'bl Kiv th'tZ cv'ti | G't'q't'f' kZ'tK 250 M'g nvti Pb c'qvm Kiv th'tZ cv'ti | w'Rlj vBU c'q'v't'Ml f'ij dj v'dj cvl qv hvq |
- O) gvt'Qi 'v'f'we'K is bv Av'mv t AwAK Nb't'Z; uks l gv, i gvQ Prl Ki'tj gvt'Qi M'v't'qi 'v'f'we'K is Av'tm bv | G'tZ t'f'v'i'v'i K'v't'Q gvt'Qi M'hY th'v'M'Zv K'tg hvq, dtj ev'Rvi 'i Kg cvl qv hvq | G mg'm'v 'j' Kivi Rb' gvQ ev'Rvi RvZ Kivi Kgct'q 15 w'b c'te'c'c'K't'ii 1/4 A's'tk K'P'ix cv'bv A_ev t'U'vcv cv'bv t' qv th'tZ cv'ti | Z'te ev'Rvi RvZ Kivi ci K'P'ix cv'bv Ac'm'v'i'Y K'ti t'dt'j w'tZ n'te |
- P) gvQ Pw'i t Gu'v GK'u'U m'v'v'Y mg'm'v ev m'v'g'w'R'K SJK | c'Kt'ii gvQ eo n'tj G SJK teto hvq | ZvB eo gvQ,t'jv Av'v'Y Ki'tj Pw'i n'l qvi m'q'ebv K'tg hvq | G Q'ovovl gvQ Pw'l t'K mg'v't'ri Ab't' i m'v't_ D'EG m'v'ú'K'ev'Rvq ivL'tZ n'te Ges e'w'v'v'v'Z, cw'i ew'i K l m'v'g'w'R'K 0'0 G'w'otq Pj'tZ n'te | Drcw' Z gvQ t't'K w'K'Q'Y'gvQ c'Kt'ii c'v't'k'p'em'ev'm'K'v'x't' i gvt'S tm'S'Rb'g'j'K we'Z'i'Y Ki'tZ n'te |

uks l gv, i gvt'Qi tivM l c'iz'K'vi

m'v'v'Y Z't uks l gv, i gvQ Prtl i c'Kt'ii t'Zgb t'Kvb t'ivMe'wa nq bv | Z'te k'x'tZ Ges cwb'i cwit'ek 't't'Y M'v'tq m'v'v'v'v' ev 'q'Z tivM t' Lv w'tq _vt'K | c'U'tgB c'Kt'ii cwb'i cwit'ek D'b'q't'bi Rb' kZ'tK 250 M'g nvti Pb w'tZ n'te A_ev 500-750 M'g nvti w'Rlj vBU c'qvm Kiv th'tZ cv'ti Ges c'Kt'ii cwb Av's'v'k'K cw'e'Z'p'bi e'e'v Ki'tZ n'te | Pw'l t'K g'tb ivL'tZ n'te th gvt'Qi t'iv't'Mi w'P'w'K'm'v Kivi t'P'tq gvt'Q h'v'v'tZ tivM bv nh tm e'e'v w'w'o'Z KivB D'EG |



አወጣጥ ስርዓት

ግብር 04

ግብር 08.00-09.00

ግብር 60 ግብር

ግብር	ግብር
ግብር	ግብር
ግብር	ግብር
ግብር	ግብር

ግብር	ግብር	ግብር	ግብር
ግብር	ግብር	ግብር	ግብር
ግብር	ግብር	ግብር	ግብር
ግብር	ግብር	ግብር	ግብር
ግብር	ግብር	ግብር	ግብር
ግብር	ግብር	ግብር	ግብር
ግብር	ግብር	ግብር	ግብር
ግብር	ግብር	ግብር	ግብር
ግብር	ግብር	ግብር	ግብር
ግብር	ግብር	ግብር	ግብር

ሕገ-መንግሥት ስርዓት ለግብርና ግብርና ግብርና ግብርና ግብርና

Awatekb cwi Kí bv

w` b t 04

mgq t 9.00-10.00

tgqv` Kvj t 60 ugubU

wk`ti vbg	t wks I gv, i gv`Qi AvniY, evRvi RvZKiY I Aw`R we`tkH
Afxó `j	t grm` Awa` B`ii KgRZ`e`
j`f`	t c`k`f`Yv`f` i wks I gv, i gv`Qi AvniY, evRvi RvZKiY I Avq-e`tqi wmv`e we`tkH`Yi I ci Ávb e`p`x`i c`P`óv` tbqv hv`f`Z Zv`iv Aw`RZ` Ávb Pw`l`f` i gv`S h`_vh`_f`r`te `vb`S`f` K`ti gv`Q P`vl e`p`l`f`Z m`nv`q`Zv` K`i`f`Z` c`v`ti`
D`f`i` k`	t G Awatekb tk`f`l` c`k`f`Yv`_x`f`Y`- <ul style="list-style-type: none"> • wks I gv, i gv`Q c`k`i` t`_f`k` AvniY m`e`u`f`K`e`j`f`Z` c`v`i`f`eb` • wks I gv, i AvniY D`E`i` K`i`Y`x`q` m`e`u`f`K`e`j`f`Z` c`v`i`f`eb` • wks I gv, i gv`Q evRvi RvZKi`f`Yi` f`f`f`f` K`i`Y`x`q` w`el`f`q` e`j`f`Z` c`v`i`f`eb` • Aw`R` we`tk`H` w`el`f`q` e`j`f`Z` c`v`i`f`eb`

wel qm`P	Av`j`v`P` wel q	c`k`f`Y` t`K`S`k`j	mgq
f`ig`K`v`			5 ugubU
	<ul style="list-style-type: none"> • `M`Z`g` • ce`e`Z`r`e`Awatek`f`bi` c`p`i`v`t`j`v`P`bv` • e`Z`g`v`b` Awatek`f`bi` I`ci` Av`j`v`K`c`v`Z` • D`o`y`_K`i`Y` 	e`3`Z`v` I c`k`f`E`i`	
wel q e`-`			50 ugubU
	<ul style="list-style-type: none"> • gv`f`Q`i` Avni`f`Yi` c`e`K`i`Y`x`q` K`v`R` • Avni`f`Yi` mgq` • Avni`Y` c`x`w`Z` • Avni`Y` c`i`e`Z`P`K`v`R` • Avni`f`Yv`E`i` c`k`f`i` K`i`Y`x`q` • Avq` e`-`t`qi` wmv`e` 	e`3`Z`v`, c`k`f`E`i` g`f`P` w`P`S`H` So, `j`x`q` K`v`R` Ges` w`d`e`P`v`U`c`o` k`B`	
mvi`-m`st`f`f`c`			5 ugubU
	<ul style="list-style-type: none"> • g`j` w`el`q`m`g`f`ni` c`p`i`v`t`j`v`P`bv` • D`f`i` k` h`v`P`v`B` • n`v`E`Av`DU` w`e`Z`i`Y` • c`i`e`w`Z`e`Awatek`f`bi` m`v`f`_m`st`h`v`M` • ab`ev` Á`v`c`b` I` w`e`v`q` 	c`k`f`E`i`	
c`k`f`Y` m`nv`q`K` m`v`g`M` t` f`e`W`g`v`K`f` , w`b`D`R`w`c`U` , w`d`e`P`v`U` , c`k`Z` e`-` , n`v`E`Av`DU` B`Z`w`			

მდებარეობის კიბე

<p>^K გვჭიკი ანიY I ევრიRvZKiY</p>	<p>გვQ ანიჭი ცჳეჳეჳეP" ეჳლმგნ</p> <ul style="list-style-type: none"> • ევრი `ი ჰვიB კივ • ტμZv ბაჳიY კივ • ტრქი I რვი WK კივ • ცჳიენბ ე"ე"v WK კივ • ცქტი ე"გვბ რი R ანივQv I ვვი ცვი v (ჰვ` _vქK) ანივიY კივ • გვQ ცჳი გვქცი რბ" დჳიჳ ცჳი გვქK ჰქსი ე"ე"v კივ • გვQ რეშ- აე"რჳ ევრი RvZ კივი რბ" კტბივი (Wგ) ე"ე"v კივ • გვQ ანიY კტი ც0_გK ფიჳე რეშ-მსი ჳქტი რბ" ც0qRბxq ტბტი ნვი მსMი კივ • გვQ ც"mKs I ცჳიენბკვი xბ მსი ჳქტი რბ" ცი Ges eid მსMი კივ
<p>გვQ ანიჭი მგჳ</p> <ul style="list-style-type: none"> • ვე" I ცჳი `ვი ანივი ჳჳ გვQ აივ • ქფტი გვQ აივ • `ქი ევრიტი ბჳვი რბ" გვS იქZ გვQ აივ • ევრიტი ტც0ქი ტეკ ცჳე"გვQ ბი აივ 	<p>გვQ ანიY ცxიZ</p> <ul style="list-style-type: none"> • თიო რვი ცxიZ • Sუიკ რვი ცxიZ • ციბ ბბ"vკბ ცxიZ
<p>გვQ ანიY ციეიZ"KvR</p> <ul style="list-style-type: none"> • ცჳი `ვი ციბქZ ტარჳ • ცჳიK Wჳტგ ცჳიენბ • ტQvU ეო ევიBKივ 	<p>ლvZ I ჳვი ექვი ვნივე</p> <ul style="list-style-type: none"> • ცქი ფივ • Pბ μჳ • ტვიბ μჳ • ლv" μჳ • აბ"ბ" ე"ჳ • ცჳიენბ ლიP
<p>ავქი ვნივე</p> <ul style="list-style-type: none"> • გი ცRვიZი გვQ ეჳμჳ ტ_ქK ავი • მვ_ ცRვიZი გვQ ტ_ქK ავი 	

uks I gv, i gvQi AvniY, evRvi RvZKiY I Awl_Ŕ weŕkH

gvQ AvniY I evRvi RvZKiY

gvQ AvniY t uks I gv, i gvQ Prŕli c×wZ mwK fvte cwi Pwŕj Z ntj Prŕli 110-120 w`tb gvQ evRvi RvZKiŕYi DcŕhvMx nq Ges Gmgŕq uks gvQi Mo I Rb 75-100 Mŕg I gv, i gvQi Mo I Rb 90-110 Mŕg ntq _vŕK| gvQi AvKvi I Rb, gvQi evRvi `i, Pwi mn Ab`vb` SwwK Ges weŕkl Kŕi cŕKŕi gvQi aviYŕgZv (Carrying Capacity) weŕepbvq tiŕL gvQ AvniY I evRvi RvZKiŕYi mw×vš-wbŕZ nŕe| evRŕi weŕŕqiRb` tŕŕi Z gvQi _YmZ gvb AwK mgq fvj ivLvi Rb` gvQ AvniŕYi 1 w`b cŕe`Lvevi cŕŕqm eÜ ivLv DvPZ| gvQ Prŕli cŕKŕi AwK NbŕZj gvQ _vKŕj gvQ evRvi RvZKiŕYi cŕeP w`b Rvj ŕUŕb gvQ aŕi tŕto w`ŕZ nŕe, Gi dtj evRvi RvZ Kivi mgq gvQi gZi nvi Kŕg hvq|

gvQi evRvi `i t gvQi evRvi `i weŕfbæGj vKvq I FZŕZ Kg teŕk ntq _vŕK| gvQi `vŕgi cŕZ tLqvj tiŕL gvQ evRvi RvZ Kiv DvPZ| gvQi evRvi `i fvj cvl qvi Rb` gvQ aivi AvŕMB ŕŕŕki eo evRvi mgŕn thvMŕthvM `vcb Kŕi evRvi `i hvPvB Gi e`e`v KiŕZ nŕe Ges evRvi mgŕn Rxeš-gvQ tŕvU eo evQvB (Grading) Kŕi cvŕŕbvi e`e`v Kiv tMŕj AwK gj` cvl qv hvq|

AvniYce`KiYxq

gvQ AvniŕYi mw×vš-MŕŕŕYi cŕe`ŕbŕP Dŕj w`Z weqI mgŕn weŕepbv Kiv cŕŕqvRb t

- evRvi `i hvPvB Kiv
- ŕŕZv wbaŕŕY Kiv
- ŕRŕj I Rvj wK Kiv
- cwi enb e`e`v wK Kiv
- cŕKŕi we`gvb Rj R AvMvQv I Wj cvj v (hv` _vŕK) Acmvi Y Kiv
- gvQ cwi gvŕci Rb` Dchŕ cwi gvŕc hŕŕj e`e`v Kiv
- gvQ Rxeš-Ae`vq evRvi RvZ Kivi Rb` KŕUvbi (Wŕg) e`e`v Kiv
- gvQ AvniY Kŕi cŕŕgKfvte Rxeš-ŕŕŕŕYi Rb` cŕŕqvRbxq ŕbŕUi nvcv mŕMŕ Kiv
- gvQ c`wks I cwi enbKvj xb mŕŕŕŕYi Rb` cvŕ Ges eid mŕMŕ Kiv|

gvQ AvniŕYi mgq

VvEv Ges cwi`vi AvenvI qvq gvQ aiv DvPZ| weŕkl Kŕi wKvUeZr`evRŕŕi cvŕŕbvi ŕŕŕŕŕ ŕfvŕi Ges `ŕeZŕ`evRŕŕi Rb` gvS ivŕZ gvQ AvniŕYi e`e`v KiŕZ nŕe| evRŕŕi Dchŕ mgtqi teŕk cŕe`gvQ aŕi ivLv DvPZ bq|

gvQ AvniY c×wZ

cŕKŕi AvqZb ev gvQ AvniŕYi cwi gvŕYi I ci wŕŕŕŕ KŕiB AvniY c×wZ wbeŕPb Kiv hvq| gvQ cŕvbZ wZbfvte AvniY Kiv hvq t

K) teo Rvj c×wZ t hv` cŕKŕi AvqZb eo nq Ges teŕk cwi gvY gvQ evRvi RvZ KiŕZ nq Zvntj teo Rvj e`envi Kiv DĒg| Gŕŕŕŕŕ teo Rvŕj i dŕŕmi AvKvi 1/4 BwA nI qv DvPZ| Rvŕj i cŕ`cwiB Mfŕi Zvi wŕ, Y Ges cŕKŕi i`Nŕ ŕ`o, Y nI qv cŕŕqvRb|

L) SwwK Rvj c×wZ t hv` Kg cwi gvY gvQ aiŕZ nq Zvntj SwwK Rvj ŕviv gvQ aiv thŕZ cvŕi | gvQ aivi 10-15 wgvbU AvŕM wKQyLvevi w`ŕj gvQ aiv mnR nq|

M) cwiB w`wkb c×wZ t weŕkl Kŕi mŕŕŕŕAvniŕYi ŕŕŕŕŕ G c×wZ AZ`š-Kvhŕi | uks I gv, i gvQ AvniŕYi mgq cŕŕgKfvte teo Rvj w`ŕq AwKvŕsk gvQ aivi ci, cwiB w`wkbŕi e`e`v Kŕi mŕŕŕŕgvQ aiŕZ nŕe| cŕKŕi tŕŕP me gvQ mnŕR aivi Rb` cŕKŕi GK w`ŕK Xvj jGes gvS eivei cwi Lv Lbb Kŕi ivLv DĒg|

gvQ AvniY ci ewZ`KvR

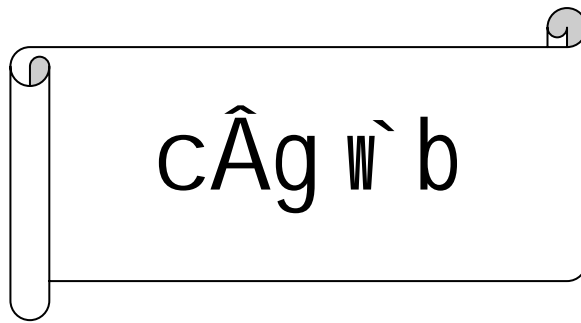
ċirkonjazz ta' K gvQ aivi ci cwi'vi cwiB 0viv favq `i Kvi | uks I gv, i Kg Av, tRb gvT vq tek uKQymgq tetP _vKtZ cwti ZvB aivi ci gvQ i cwi gvc Kti cwiK Wtq cwi gvYgZ cwiBtZ gvQ uRBtq cwi enb I evRvi RvZ Kiv thtZ cwti | KvTQ uKsev `ti me evRvti Gfite gvQ cvVtj gvQ i _YMZ gvB fvj _vtK Ges AvaK g'j' wep q Kiv m'e nq |

uks I gv, i gvQ Pvl i Av, R wep k Y

GK GKti i GK u cwti uks-gv, i Pvl m'e' Drcv`b I Avq-e'tqi wmv

muK bs	weeY	UvKvi cwi gvY
K)	e'tqi wmv	
01	ċirkonjazz ms'vi /fvov (6 gvTmi Rb')	10,000.00
02	uks I gv, i gvQ i tcvb 60,000 u (bvm'itZ jvj tbi ci 40,000 u tcvb c'wB w'w'Z Kiv)	1,20,000.00
04	wmj fvi /KvZj 150 u	1,500.00
05	Pb 250 tK uR	2,000.00
06	BDwi qv mvi 50 tK uR	350.00
08	uJ Gm wv mvi 25 tK uR	350.00
09	gvQ i Lv' (c'q 7000 tK uR)	2,10,000.00
10	cwi ewi K ktg I ktgK gRj x	20,000.00
11	cwi enb LiP	20,000.00
12	Ab'vb' LiP	10,000.00
	tgw LiP (K)	4,58,900.00
L)	Av'tqi wmv	
01	uks I gv, i wep q (evPvi nvi 80% Ges 15 u tZ tK uR ati)	640
03	wmj fvi /KvZj gvQ wep q 200 tK uR (c'q)	11,000.00
	tgw Avq (L)	6,51,000.00
wbU j vF (L-K) = (6,51,000.00 - 4,45,900.00) = 2,05,100.00		

Dcmsnvi t uks, gv, i, `K BZ'w' gvQ AZ's-Rb'w'q, my'v' yI A_`bwZKfite AZ's_ i "ZcY'w'Ks' t' kxq c'RwZi G gvQ, t jv AvR wep j'Bi c't_ | Gme gvQ i g'ta' `K Ges uks B'tZvg'ta' GKK fite Pvl j vFRbK wntmte c'wZw'Z | Aciw' tK gv, i gvQ, `K I cvsMvm gvQ i m'v' _ m'w' _ dmj wntmte Rb'w'q Zv j vF Kti tQ Ges Gifc Pvl i m'c'w'vi YI NU tQ | uks, gv, i I `K gvQ i b'vq t' kxq c'RwZi Ab'vb' gvQ thgb cve`v, tUsiv, c'w BZ'w' wecbe'w'q gvQ i q'vi Rb' tKej msi q'Yg j K e'e'v wbtj B ht'ó nte bv, uKfite Ab' c'RwZi m'v' _ ewYw'R'Kfite Pvl i (Commercial Culture) Aaxtb tbqv hvq tm w'el t'q c' t'q c' M'w'Y Ki tZ nte | Zvntj B c'KZc't'q | G me gvQ u'w'k'q i vLv m'e nte |



cÂg w` b

Awatekb cwi Kí bv

w` b t 05

mKvj 08.00-09.00

tgqv` Kvj t 60 ŕgubU

wkŕivbv	t	čpivŕj vPbv, cŕZfve I Dc'vcbr
Afxŕ`j	t	grm' Awa`Bŕi i KgRZŕe` Ges Ab'vb' m=čŕvi Y Kgŕ®
j ŕŕ'	t	čikŕjYv_ŕ' i ceŕ' ŕbi Kvhŕŕgi čpivŕj vPbv I cŕZfve Ges mvŰ'Kvj xb KvR Dc'vcŕbi mŕhŕM Kŕi ŕ'qv hvŕZ Zviv čŕeP Avŕj vPbv ŕ'ŕi Y KiŕZ cvŕib Ges fj ŕ'ŕU mŕŕkvab Kŕi Awatekŕbi Kvhŕŕwi Zv eŕx KiŕZ cvŕib
Dŕi'k'	t	G Awatekb ŕkŕl čikŕjYv_ŕMY ceŕ' ŕbi wkŕjY čpivŕj vPbv gra'tg fj ŕ'ŕU mŕŕkvab Kŕi HKgŕZ' ŕčŕŕZ mŕŕg nŕeb

wel qmŕP	Avŕj vP' wel q	c×wZ	mgq
fŕgKv			5 ŕgubU
	<ul style="list-style-type: none"> ŕ'wZg Pj wZ Awatekŕbi mvŕ_ mŕhŕM 	e ³ Zv	
wel qe'			5 ŕgubU
	<ul style="list-style-type: none"> cŕZ'ŕnK RvYŕj Dc'vcb čikŕjK ceŕ' ŕbi wbeŕPZ čikŕjYv_ŕK cŕZ'ŕnK RvYŕj ŕ_ŕK 5 ŕgubU ej vi Rb' Abŕi va Kiŕeb cŕg čikŕjYv_ŕZvi cŕZ'ŕnK RvYŕj Dc'vcb ŕkl Kiŕj Ab' ŕKD Avi ŕKvb weŕkl wkŕjYŕq wel q Dc'vcb KiŕZ AvMŕx wKbv Zv čŕkŕKŕi Rvbŕeb Ges ŕKD AvMŕx_vKŕj ZvŕK Dc'vcb Kivi mŕhŕM ŕ'ŕeb ceŕ' ŕbi čpivŕj vPbv čikŕjK GK Rb čikŕjYv_ŕK mnvqK ŕnŕmŕe wbeŕPb Kiŕeb whŕb MZ w' ŕbi mg' -Kvhŕŕg I wkŕjYŕq wel q, ŕjv čŕkŕEŕi i gra'tg čpivŕj vPbv Kiŕeb 	e ³ Zv čŕkŕEŕi	
mvi -mŕŕŕc			3 ŕgubU
	<ul style="list-style-type: none"> cŕZ'ŕnK RvYŕj I mvŰ'Kvj xb KvŕRi Dc'vcbr Ges cŕZ'ŕnK čpivŕj vPbvq AskMŕŕŕi Rb' mevBŕK ab'ev` Ávcb 	e ³ Zv I čŕkŕEŕi	
čikŕjY mnvqK mvŕMŕ t ŕnvqvBU ŕeW®, gvKŕŕ, BZ'w'			

Awa`tekb cwi Kí bv

w` b t 05

mKvj 09.00-10.00

tgqv` Kvj t 60 wgvbu

wk`ti vbg t cwi tetki Dci wboeo/Avav wboeo Pwti i cfve I `thM e`e`vcbv
 Afio` j t grm` Awa` Bti i KgRZve` I m`c`hvi Y Kgx`
 j`j` t c`k`Yv` i cwi tetki Dco wboei/Avav wboeo Pwti i cfve I `thM e`e`vcbv m`u`K`mg`K avi Yv
 t`l qv hv`Z Zui v G Ávb Kv`R j wM`q gvQPwl t`i I grm`Rxe` t`i K c`q`v Rbxq m`thwM Zv Ki`Z
 cvi`teb |
 D`i`k` t G Awa`tekb tk`l c`k`Yv` MY mweR `thM e`e`vcbv I cbe`mb m`u`K`ej t`Z cvi`teb I
 gvQPwl t`i I grm`Rxe` t`i `thM tgvK`tej vi tK`Skj ev Dcvq tkLvt`Z cvi`teb |

wel qm`P	Avtj vP` wel q	c`k`Y tK`Skj	mgq
fvgKv			4 wgvbu
	<ul style="list-style-type: none"> • `MZg • ce`Zi`Awa`tekb`i cpi vtj vPbv • eZgvb Awa`tekb`i mvt`_msthvM `vcb • Awa`tekb`i D`i`k` e`vL`v 	c`k`Ei Avtj vPbv	
wel qe`			50 wgvbu
	<ul style="list-style-type: none"> • wboeo/Avav wboeo Pwti cwi tetki I ci cfve • `thwM mg`q grm` Awa` Bti i Ki Yxq • cbe`mb ch`q grm` Awa` Bti i Ki Yxq • `fveK mg`q grm` Awa` Bti i Ki Yxq • `thM tgvK`tej vq Dc`Rj v K`v`l`i mvsMv`bK i fci Lv 	c`k`Ei e`Zv Avtj vPbv gj` wP`Si So wdePvU`	
mvi -mst`c			6 wgvbu
	<ul style="list-style-type: none"> • gj` wel q-mg`n cpi vtj vPbv • D`i`k` hvPvB • cieZi`Awa`tekb`i mvt`_msthvM • n`v`EAvDU weZi Y • ab`ev` Ávcb 	e`Zv c`k`Ei	
c`k`Y m`vqK mvgM` t n`v`EAvDU, t`nvqvBU tevW`, wDRic`E, gvK` , wdePvU`, Abj`xj b kxU			

- O) 11ZM0-grm'Rwe l grm' Pvl x` i Rb` FY mnvqZv Ges Aby vti e'e'v Kivi KgP MhY Ki te|
- P) 11ZM0-cKi gwj Kf` i tK grm' tcvb mi ei vn Ges grm' Pvl Kwi Mwi civgk°c0 vb Ki te|

grm' Awa` Bti i gv chq q AwdmmgA `vfweK `wqZ; ubefn Qovl grm' Awa` Bti i wfvM, tRj v Ges DctRj v l cR±mgñi wdì Awdmvi MY wbgwj wLZ KgñgA m±úv` b Ki teb|

`vfweK mgq gv chq q grm' Awa` Bti i Ki Yxq t

- K) c0Z erm' NwYSO/ eb'v tgsmg` i i" nl qvi cteB NwYSO/ eb'vcEY Gj vKvi gvQ aivi tbSKvmgA, Uj vi, wduks wMqvi, gvQ aivi Kwi Mwi hšcwZ, grm' tcvb l grm' cvj b oK Ges grm' Avev`mgñi wbi vcE v l mj 11vi Df`i tK` c0qvRbxq mZKZvgj K e'e'v MhYi Rb` grm' Awa` Bti i wdì Awdmvi MY K.I.K Ges grm' Pvl x` i mRvM Ki te|
- L) Aaxb` AwdmmgA, wmwicw grm' Pvl x Ges grm'Rwe c0Zubwa cFvZi minZ cwi e` Bti i MpxZ wBR`^cwi Kí bv Abyvti c0wZi Ae'v cix 11v Ki te|
- M) `fhM Pj vKvj xb mgq gvQ aivi tbSKvmgA, Uj vi mgA Ges wduks wMqvi mgA, chB wbi vcEvi mvt_ ivLvi Rb` `vqxfvte wbi vc` `vb wPwY Z Ki te|
- N) wduks j wBtmY c0vbi cte°c0ZwU Uj vti l qvi t j m l ti wWl tmU `vKvi wcl q wbi wZ Ki te|
- O) DchY c0vmbK c` t 11ci gva'tg e'fvcvMti grm' wKvvi z tbSKvmgA/Uj vi mgñ ti wWl wi wvws tmU l Uj vi / tbSKvq Dcw`Z c0Z`K e'w°i Rb` j vBd R'v tKU ivLv wbi wZ Ki te|
- P) `fhMcEY Gj vKvmgñi mi Kwi l temi Kwi grm' wcl qK m±ú`mmgñi beiqbKZ Zwj Kv c0qb l msi 11Y Ki te|
- Q) `fhMcEY Gj Kvmgñi grm'Rwe RbmsL", grm'Pvl x l grm'Pvl t 11mgñi Rwi c l Dcv° msi 11Y Ki te Ges wbi` 0 mgqci ci ci Zv nvj bvMv` Ki te|
- R) mské-Gj vKvq gvQ aivi tbSKvmgA, Uj vi mgA Ges mgj Mvgx RvrvRmgñi gwj K/Pvj tKi wKvbmN Zwj Kv msi 11Y Ki te|
- S) mgyr` K Rfj v`QvmRwbZ AvNvZi Kvi tY jeYv° cwb c0ek tivta Kivi Rb` mské-Gj vKvi eia l `PpMUmgñi cwi Pvj bv l i 11vte 11Y wbi wZ Kivi Df`i tK` evsj v` k cwb DbqbtvW° KgRZf` i mvt_ mve 11YK thvMvthvM i 11v Ki te|
- T) `PpMUmgñi h_vh_ cwi Pvj bv wbi wZ Ki tZ nte|
- U) c0qvRtbi mgq wmwicw Gi minZ mgštqi gva'tg cKi mgA nZ jeYv° cwb ewni Kti t` l qvi KvR kw°Pwj Z bj Kfci j f`Zv m±ú tK°`vbxq evsj v` k Kw Dbqb Ktcñi kb Gi KgRZMti Yi minZ mgšq Ki te|
- V) NwYSO tgvKvtej v c0wZ l cwi tekMZ 11q 11Z wbi`cY Ges cpeñb m±ú tK°čik 11Y MhY Ki te|

`fhM chq q gv chq q grm' Awa` Bti i Ki Yxq t

- K) 11v l cpeñb KvR Ges D×vi AwFhvbi Rb` mgj Mvgx RvrvR wi KBwRkb Kivi e'vcvti `vbxq c0vmb tK mnvqZv c0vb Ki te (NwYSO `fhMKvj xb mgq)|
- L) wqšY K 11 Pj yKwi te Ges `vbxq `fhM e'e'v KwguUfZ thvMvthvM KgRZf`tc0Y Ki te|

cpeľmb mgťq gvV chľq grm`Awá`Bti i KiYxq t

- K) mi Kwi I e`w³gvij Kivraxb grm`máú` LvZ ħwZi cwi gvY wbfctYi Rb` Awej ħá^Rixc KvthP e`e`v Kiv Ges G LvZi Rb` Awej ħá^`xNġgv`x ĨvY I cpeľmb cwi Kí bv cľq Kwi ĩe I Zv h_vh_ KZġġi KvťQ tck Ki ĩe|
- L) `vbxq cľvmb Ges evsj v`k Kwl Dbqb Ktcľikġbi mwnZ mgšqceĤ, mgšq ntj, mi Kwi I e`w³gvij Kivraxb LvZi gva`ťg cľqvRbxq msL`K kw³Pwj Z cváú Avgv`vbx Ki ĩe|
- M) grm` Dbqb LvZ Awej ħá^`xNġgv`x ĨvY I cpeľmb cwi Kí bv ev`evqb wbuĎZ Ki ĩe Ges KvťRi AMĤwZi weľťq D`P KZġġi wBKU cĎZte`b tck Ki ĩe|
- N) ħwZMĎ-cĤi grm`Pvl ħ` i cpeľmbi Rb` AbcĎwZ Ges mnvqZv cĎvb Ki ĩe|
- O) `vbxq cľvmbġK ĨvY I cpeľmb KvťR mnvqZv cĎvb Ki ĩe|
- P) grm`Rwe/ grm`Pvl ħ` i Rb` grm` Pvl FťYi e`e`v Ki ĩe|

DctRj v` ħhľ e`e`vcbv KwgwU t

- | | |
|---|----------|
| 1) DctRj v wbeľx Awďmvi | mfvćwZ |
| 2) BDwqb cwi l ħ` i ħPqvi g`vbe` | m`m` |
| 3) DctRj v chľqi msľkġ-wefvťMi KgĤZġe` | m`m` |
| 4) gvij v cĎZwbia | m`m` |
| 5) DctRj v ħK` ĩq mgevq mwgwiZi cĎZwbia | m`m` |
| 6) NwYSo cĎwZ KgľmPi (wmcic) cĎZwbia | m`m` |
| 7) evsj v`k ti WwľťmU tmvmvBwJi cĎZwbia | m`m` |
| 8) GbwRI Gi cĎZwbia | m`m` |
| 9) DctRj v cĤi ev`evqb KgĤZġ | m`m`-mPe |

`vbxq cwi w`wZ I weľkl Ae`vi tćġġZ KwgwU mfvćwZ cľqvRbtevť Avťiv m`m` ħKv-AP KiťZ cvi ĩeb| G KwgwU cĎZ 2 gym ci ci mfvq wgvj Z nte| Avc`Kvj xb mgq cĎ`n GKevi Ges Ae`vi wKQyDbwZ ntj cĎZ mBvťn 2 evi mfvq wgvj Z nte|

DctRj v` ħhľ e`e`vcbv KwgwUi `wqZi nte t

- e`vcK wfvĤEK BDwqb `ħhľ e`e`vcbv KwgwU Mvb, mwľqKiY, cľqvRbxq wbt`Rbv I Z` cĎB Ges cĎ` cĤġġY mjeawġ ntZ DcKvi AvniY wbuĎZKiY;
- mZKZv exĤ, `ħhľMi SľK nvmKiY, wbuĎZKiY, wbuĎZ KvĤi teťP `vKvi Dcvq, wj ÁvZ Kvťbv weľq wbuĎZKiY;
- `vbxq chľq Dbqb cwi Kí bv cľq I ev`evqtb `ħhľMi SľK Ges Zv Kgvťbvi mġebvi weľq cYġvte weťwPZ ntťq wK-bv, Zv wbuĎZKiY;
- wbtġe³ weľqmn Avmbæec` mspvš-mZKġevZġ tćġġZ DctRj v KZġġ I `vbxq `ħhľ e`e`vcbv e`ťivťK AeivZ Kťi wqwgZ `ħhľ weľqK cĤġġY I KgĤvj vi AvťqvRb;
- wbtġe³ weľqmn Avmbæec` mspvš-mZKġevZġ tćġġZ DctRj v KZġġ I `vbxq ms`vmgň thb KvĤi fvťe I `ġZvi mť_ `ħhľ tgvKvťej vi cĎZ I ħgZv mæubæq tm j ħġ `ħhľ Kgġcwi Kí bv cľq;
- NwYSo I eb`v mspvš-cpġvm AwZ`Z I KvĤi fvťe DctRj vi mKj KgĤZġ, msľkġ-e`w³eMġ cĎZövb Ges BDwqb chľq GZ`weľťq `wqZi cĎBť i KvťQ tćšwťbvi e`e`v MġY;
- cľqvRbxq gġťZġ DctRj v m`ťi RbmvariYťK AcmviťYi Rb` wbu`Ĥ Avkť ħK`ġ Avkť`j wbaľY I AvkťťKť` ħ weľfbæťmev KvR cwi vj bvi Rb` weľfbæ`w³eMġK `wqZi cĎvb;

- Avk'itK>' / Avk'it'j mg'n cvl f'ci cwlb mieivn l Ab'vb' c'qvRbxq tmev ms'v'tbi e'e'vKiY Ges BDwbqb e'e'vcbr Kwguji mvt_ thvMvthvM BDwbqb ch'iq Aew'Z Avk'itK>' mg'n GKB ait'Yi tmev l mjeaw' vbow'ZKiY;
- BDwbqb `h'hm e'e'vcbr KwgujK c'ogK T'vY l D'xvi Kvth'©mrvqZvi Rb' tRjv m' i l BDwbqbmgn' m'½ thvMvthvM 'vcb l Dnv msi 'l'Yi /cp:'vc'tbi e'e'v m'oj Z Avb'j w'zK cwi K'í bv c'v'qb;
- tRjv l BDwbqb KZ'et'ji mrvqZvq gv'S gv'S Dct'Rjvi Af's'hi Zt' i c'v'Yv l mZK'evZ' ce'ffvm c'v'vi, Ac'mviY, D'xvi l c'ogK T'vY Kv'©cwi Pvj bv w'el'q gnov Ab'v'tbi e'e'vKiY;
- M'og ch'iq `h'hm' ce'ffvm e'vcK c'v'vi KiZ: MYm'tPZbZv m'j' KiY|

4.2 `h'hmKv'tj KiYxq t

- Dct'Rjv ch'iq Ac'mviY, D'xvi l T'vY m's'v's-Kg'kv't'Ui mg's'tqi Rb' 'ORi'ix
- cwi Pvj b tK>' ' (Z' tK>' ' l w'q's'Y K'q) cwi Pvj bv;
- c'qvRb n'tj, 'vbxq'v'te c'ic' mjeaw' e'envi K'ti D'xvi Kv'©cwi Pvj bv Ges Ab't' i D'xvi Kv'©cwi Pvj bvi mg's'q mvab, hw' `w'qZi't' qv nq;
- `h'hm e'e'vcbr ej'tiv l tRjv KZ'et'ji c'og' w't' Rbv Ab'v'ti Dct'Rjv - Kg'KZ'e' l BDwbqb t'tK `h'hm' d'tj ms'Nw'Z 'l'w'Zi Dcv'E ms'Mn l hv'vBK'iY; Kg'KZ'ev Ab't'Kvb thvM' e'w'©eM'v'v m'g'v'v cwi Pvj bv K'ti Z' w'eb'v'tmi gva'tg c'qvRb l AM'waKvi w'ba'Y;
- tRjv KZ'et'ji w'KU 'l'w'Z, c'qvRb l c'ic' m'v' Ges T'vY l c'p'e'mb Kv't'ri Rb' AM'waKvi w'f'v'É'tZ c'qvRb m's'v's-w'eiY/ Dcv'E mieivnKiY;
- 'vbxq ch'iq c'p'e'mb Kv't'ri Rb' Sp'K n'wmKi't'Yi m'v'e' e'e'v'mn mZK'Z'vi m'½ cwi K'í bv c'v'qb;
- `h'hm e'e'vcbr ej'tiv l tRjv KZ'et'ji KZ'R c'og' w't' Rbv Ab'v'ti 'vbxq'v'te ev T'vY Aw'a' Bi/ Ab' Drm' t'tK c'v' m'v' , e'w'ob'v'te w'bi'ic'Z c'qvR't'bi w'f'v'É'tZ D'xvi, T'vY l c'p'e'mb Kv't'ri Rb' eiv' l w'Zi't'Yi e'e'v M'h'Y;
- T'vY l c'p'e'mb m's'v's-mrvqZv m'v'g'M' w'ei't'Yi w'el'q Z'v'w'K l w'nmvew' msi'q'Y Ges Zv tRjv KZ'et'ji l Ab'vb' T'vY c'og'v'v'x m's'v'm'gn' w'KU t'c'Y;
- Dct'Rjv ch'iqi w'w'f'ba' B'ti i g'ta' mg's'tqi `w'qZi'cvj b;
- G'ovovl `h'hm e'e'vcbr m's'v's-'v'qx Av't' k'vej x Ges D'ch'p' KZ'et'ji Z'v'v'w'K Av't' k' Ab'v'Y|

wdc PvU`cwi Kí bv

<p>`fhM e`e`vcbv</p>	<p>`fhM e`e`vcbvq grm` Awa` Bti i Ki Yxqt</p> <ul style="list-style-type: none"> • `fhM mgtq Ki Yxq • cb@mb ch@q Ki Yxq • `vfweK mgtq Ki Yx
<p>`fhM mgtq grm` Awa` Bti i gvV ch@qi Kg@` i Ki Yxqt</p> <ul style="list-style-type: none"> • Ív I cpe@mb KvR Ges D×vi Awfhvbi Rb` mgj Mvgx RvrvR wi KBwRkb Kivi e`vcvfi `vbxq c@vmbtK mrvqZv c@vb Kite (NwYSo `fhMkvj xb mgq) • vbqšY K@ Pvj Kwi te Ges `vbxq `fhM e`e`v KugwUtZ thvMvthvM KgRZ@tc@Y Kite 	<p>`vfweK mgtq grm` Awa` Bti i gvV ch@qi Kg@` i Ki Yxqt</p> <ul style="list-style-type: none"> • c@Z erm` NwYSo/eb`v tgšmg` i` nIqvi c@eB NwYSo/eb`v c@Y GjvKvi gvQ aivi tbsKvmgn, Uj vi, wclwks wMqvi, gvQ aivi Kwimwi hšcwZ, grm` tcvb I grm` cvj b óK Ges grm` Avev`mg@ni wvvcEv I mj`@vi D@i`k` c@qvRbxq mZKZvgj K e`e`v M@tYi Rb` grm` Awa` Bti i wdí Awdmvi MY K.I.K Ges grm` Pvlx` i mRwM Kite • Aaxb` Awdmgn, wmicw grm` Pvlx Ges grm` Rwe c@Zwba c@Zi minZ cwi e` Bti i MpxZ wR`^cwi Kí bv Abyvfi c@Zi Ae`v cix@v Kite • `fhM PjvKvj xb mgtq gvQ aivi tbsKvmgn, Uj vimgn Ges wclwks wMqvimgn, ch@B wvvcEvi mvf_ ivLvi Rb` `vqxfvte wvvc` `vb wPyZ Kite • wclwks jwBtmY c@vbi c@e@c@ZwU Uj vti I qvitj m I tiwvI tmU `vKvi wclq wvwoZ Kite • Dch@ c@vmbK c`@t@ci gva`tg et@vcmvMti grm` wKviiZ tbsKvmgn/Uj vimgn tiwvI wimwfs tmU I Uj vi/ tbsKvq Dcw`Z c@Z`K e`w@i Rb` jvBd R`v@KU ivLv wvwoZ Kite • `fhMc@Y GjvKvmgn miKwi I temiKwi grm` wclqK m@ú`mmg@ni bevqbKZ Zwj Kv c@qb I msi`@Y Kite • `fhMc@Y GjvKvmgn grm` Rwe RbmsL, grm` Pvlx I grm` Pvl t@i`mg@ni Rwic I Dcv` msi`@Y Kite Ges wv` @ mgtqi ci ci Zv nuj bvMv` Kite • msuk@-GjvKvq gvQ aivi tbsKvmgn, Uj vimgn Ges mgj Mvgx RvrvRmg@ni gvj Kv/Pvj tKi wKvbmzn Zwj Kv msi`@Y Kite • mvgv`K R@jv`QvmRwbZ Avv@Zi Kvi`Y jeYv` c@bi c@ek tivta Kivi Rb` msuk@-GjvKvi eua I `BPtMUmgn cwi Pjv bv I i`@vte`@Y wvwoZ Kivi D@i`k` ejsj vt` k c@bi Dbqbtev@W@ KgRZ@` i minZ mve`@wK thvMvthvM i`@v Kite • `BPtMUmgn h_vh_ cwi Pjv bv wvwoZ Kitz nte • c@qvRtbi mgq wmicw Gi minZ mgštqi gva`tg c@i mgn ntZ jeYv` c@bi ewni Kti t`I qvi KvR kw`Pwj Z bj K@ci jf`Zv m@ú`K` `vbxq ejsj vt` k Kw Dbqb K@ciKb Gi KgRZ@tYi minZ mgšq Kite • NwYSo tgvKvtejv c@Z I cwi tekMZ` @q@wZ wbi`cY Ges cpe@mb m@ú`K`c@k`@Y M@Y Kite
<p>cY@mb ch@q grm` Awa` Bti i gvV ch@qi Kg@` i Ki Yxqt</p> <ul style="list-style-type: none"> • miKwi I e`w`gvj Kvbxab grm` m@ú` LvZ @vZi cwi gvY wbjctYi Rb` Awej t@`Rix Kvth@ e`e`v Kiv Ges G LvZi Rb` Awej t@`xN@gqv`x Ív I cpe@mb cwi Kí bv c@qb Kwi te I Zv h_vh_ KZ@t@i KvQ tck Kite • `vbxq c@vmb Ges ejsj vt` k Kw Dbqb K@ciKtbi minZ mgšqceR, mgšq ntj, miKwi I e`w`gvj Kvbxab LvZi gva`tg c@qvRbxq mSL`K kw`Pwj Z c@ú` Avgv` vbx Kite 	<p>DctRjv ch@q `fhM e`e`vcbv KugwUt</p> <ul style="list-style-type: none"> • DctRjv wbe@x Awdmvi - mfvicwZ • BDwbq cwi I t`i tPqig`vbe` - m`m` • DctRjv ch@qi msuk@-wefv@Mi KgRZ@e` - m`m` • gvjv c@Zwba - m`m` • DctRjv tK`@q mgevq mvgvZi c@Zwba - m`m` • NwYSo c@Z Kg@Pi (wmicw) c@Zwba - m`m` • ejsj vt` k tiWw@t@U tvmvBwI c@Zwba - m`m` • GbwRI Gi c@Zwba - m`m` • DctRjv c@Kí ev`evqb KgRZ@- m`m`-mvPe

<ul style="list-style-type: none"> • grm' Dbq'bv Lv'Z Aw'ej'x^`xN'°tgq'x T'vY I cpe'fmb cwi K'í'bv ev'evq'b w'bw'ÖZ K'ite Ges Kv'tRi AMM'w'Zi w'el'tq D'P KZ'e't'f'ji w'bkU c'ÖZ'te`b t'ck K'ite • ¶w'ZM'°- c'K'i grm'Pvl'x't'i cpe'fmb't'bi Rb' Ab'c'Öw'YZ Ges m'nvq'Zv c'Ö'vb K'ite • `v'bxq c'k'vmb't'K T'vY I cpe'fmb Kv'tR m'nvq'Zv c'Ö'vb K'ite • grm'R'w'e/ grm'Pvl'x't'i Rb' grm' Pvl F't'Yi e'e'v' K'ite 	
<p>¶h'f'fM'K'v'j x'Y mg'tq Dc't'R'j'v ch'f'q ¶h'f'fM e'e'vc'bv K'ug'u'Ji `w'q'Z't</p> <ul style="list-style-type: none"> • e'vc'K w'f'w'EK BD'w'q'b ¶h'f'fM e'e'vc'bv K'ug'u'J M'Vb, m'u'q'K'i'Y, c'Ö'q'R'bxq w'b't' R'bv I Z' c'Ö'f' Ges c'Ö'c' c'Ö'k'¶Y m'j'ea'w' n't'Z Dc'K'vi Av'ni'Y w'bw'ÖZ'K'i'Y; • m'Z'K'Z'v ex'Ö, ¶h'f'fM'i S'p'K n'w'K'i'Y, w'bw'ÖZ'K'i'Y, w'bw'ÖZ K'vh'K'i t'et'P `v'K'vi Dc'v'q'w'j Av'Z K'iv't'bv w'el'q w'bw'ÖZ'K'i'Y; • `v'bxq ch'f'q D'b'q'b c'wi K'í'bv c'Ö'q'b I ev'evq't'b ¶h'f'fM'i S'p'K Ges Z'v K'g'v't'bv m'w'eb'vi w'el'q c'Y'f'v'te w'et'w'PZ n't'q't'Q w'K'-bv, Z'v w'bw'ÖZ'K'i'Y; • w'b't'g'w'³ w'el'q'mn Av'm'b'e w'ec` m's'p'v's-m'Z'K'°ev'Z'f' t'c'¶'j'Z Dc't'R'j'v KZ'e'¶ I `v'bxq ¶h'f'fM e'e'vc'bv e'f'v'f'K A'ew'Z K't'i w'bc'q'g'Z ¶h'f'fM w'el'q'K c'Ö'k'¶Y I K'g'R'v'j'v Av't'q'R'b; • w'b't'g'w'³ w'el'q'mn Av'm'b'e w'ec` m's'p'v's-m'Z'K'°ev'Z'f' t'c'¶'j'Z Dc't'R'j'v KZ'e'¶ I `v'bxq m's'v'm'g'n th'b K'vh'K'i'f'v'te I ¶'j'Z'vi m'v't' ¶h'f'fM t'g'v'K'v't'ej'vi c'Ö'Z I ¶'g'Z'v m'w'ü'b'e'n'q t'm j't'¶' ¶h'f'fM K'g'° c'wi K'í'bv c'Ö'q'b; • N'w'Y'S'o I eb'v m's'p'v's- c'p'f'f'v'm Aw'Z`'Z I K'vh'K'i'f'v'te Dc't'R'j'vi m'K'j K'g'R'Z'P, m's'w'k'° e'w'³e'M'P c'Ö'Z'ö'v Ges BD'w'q'b ch'f'q GZ`w'el'tq `w'q'Z'j' c'Ö'f't'i K'v'f'Q t'c'Ö'w'v't'bi e'e'v' M'h'Y; • c'Ö'q'R'bxq g'ü't'Z° Dc't'R'j'v m't'i'i R'b'm'v'avi Y't'K Ac'm'w'i't'Yi R'b' w'bw'Ö Av'k't'j' t'K'°'Y Av'k't'j' w'ba'f'Y I Av'k't'j'K't'°'i w'w'f'ba'f'm'ev K'v'R c'wi'v'j' b'vi R'b' w'w'f'ba'e'w'³ e'M'f'K `w'q'Z'j' c'Ö'vb; • Av'k't'j'K'°'i / Av'k't'j' m'g'f'n c'i'f' f't'i c'w'b m'ie'iv'n I Ab'v'b' c'Ö'q'R'bxq t'm'ev m's'v't'bi e'e'v'K'i'Y Ges BD'w'q'b e'e'vc'bv K'ug'u'Ji m'v't' th'w'v't'w'v't'f'fM BD'w'q'b ch'f'q A'ew'Z Av'k't'j'K'°'i m'g'f'n G'K'B ai't'Yi t'm'ev I m'j'ea'w' w'bw'ÖZ'K'i'Y; • BD'w'q'b ¶h'f'fM e'e'vc'bv K'ug'u'J'K' c'Ö'w'g'K T'vY I D'x'vi K'v't'h'° m'nvq'Z'vi R'b' t'R'j'v m'i I BD'w'q'b m'g'f'ni m't'½ th'w'v't'w'v't'f'fM `v'cb I D'rv m's'i'¶'j'Yi /c'p: `v'c't'bi e'e'v' m'w'j'Z Av'b'j'w'½'K c'wi K'í'bv c'Ö'q'b; • t'R'j'v I BD'w'q'b KZ'e't'f'ji m'nvq'Z'v g'v't'S g'v't'S Dc't'R'j'vi Af'š'f'i Z't'°'i c'P'vi Y'v I m'Z'K'°ev'Z'f' c'e'f'f'v'm c'P'vi, Ac'm'w'i'Y, D'x'vi I c'Ö'w'g'K T'vY K'vh'° c'wi P'j'bv w'el'tq g'nov Ab'p'v't'bi e'e'v'K'i'Y; • M'ö'g ch'f'q ¶h'f'fM'i c'e'f'f'v'm e'vc'K c'P'vi K'i'Z: M'Y'm't'P'Z'b'Z'v m'w'ö K'i'Y 	<p>cb'e'v'm'b mg'tq Dc't'R'j'v ch'f'q ¶h'f'fM e'e'vc'bv K'ug'u'Ji `w'q'Z't</p> <ul style="list-style-type: none"> • Dc't'R'j'v ch'f'q Ac'm'w'i'Y, D'x'vi I T'vY m's'p'v's- K'g'R'v't'Ü'i m'g's't'q'i R'b' Ö'ri'f'ix c'wi P'j'bv b't'K'°'Ö (Z' t'K'°'i w'bc'q'š'Y K'¶) c'wi P'j'bv; • c'Ö'q'R'b n't'j, `v'bxq'f'v'te c'Ö'c' m'j'ea'w' e'envi K't'i D'x'vi K'vh'° c'wi P'j'bv Ges Ab'f'°'i D'x'vi K'vh'°c'wi P'j'bv m'g's'q' m'v'ab, h'w' `w'q'Z'j' t'q'v' n'q; • ¶h'f'fM e'e'vc'bv e'j't'iv I t'R'j'v KZ'e'¶ c'Ö'É w'b't' R'bv Ab'j'm't'i Dc't'R'j'v - K'g'R'Z'P; I BD'w'q'b t'°'K' ¶h'f'fM'i d't'j m's'N'u'JZ ¶'w'Z'i Dc'v'É m's'M'n I h'v'P'v'K'i'Y; K'g'R'Z'P ev' Ab'f'K'v'b th'w'v' e'w'³e'M'° Ö'v'iv m'g'v'¶'v c'wi P'j'bv K't'i Z' w'eb'v't'm'i g'v'a't'g c'Ö'q'R'b I AM'ö'a'K'vi w'ba'f'Y; • t'R'j'v KZ'e't'f'ji w'bkU ¶'w'Z, c'Ö'q'R'b I c'Ö'c' m'w'ü` Ges T'vY I cpe'fmb Kv'tRi R'b' AM'ö'a'K'vi w'f'w'É't'Z c'Ö'q'R'b m's'p'v's-w'ee'i'Y/ Dc'v'É m'ie'iv'n'K'i'Y; • `v'bxq ch'f'q cpe'fmb Kv'tRi R'b' S'p'K n'w'K'i't'Yi m'w'eb' e'e'v'm'n m'Z'K'Z'vi m't'½ c'wi K'í'bv c'Ö'q'b; • ¶h'f'fM e'e'vc'bv e'j't'iv I t'R'j'v KZ'e'¶ KZ'R' c'Ö'É w'b't' R'bv Ab'j'm't'i `v'bx'f'v'te ev' T'vY A'w'a`B'i/ Ab'°'Drm' t'°'K' c'Ö'f' m'w'ü`, e'w'bw'ö'f'v'te w'b'j'f'c'Z c'Ö'q'R't'bi w'f'w'É't'Z D'x'vi, T'vY I cpe'fmb Kv'tRi R'b' e'iv'i I w'e'Z'i't'Yi e'e'v' M'h'Y; • T'vY I cpe'fmb m's'p'v's-m'nvq'Z'v m'v'g'M'ö w'ee'i't'Yi w'el'q Z'v'w'K I w'w'v'w'v' m's'i'¶'Y Ges Z'v t'R'j'v KZ'e'¶ I Ab'v'b' T'vY c'Ö'vb'K'vi x' m's'v'm'g'f'ni w'bkU t'c'Ö'Y; • Dc't'R'j'v ch'f'q'i w'w'f'ba'e' B't'i i g't'a' m'g's't'q'i `w'q'Z'j' c'v'j' b; • G'Q'v'ov'l ¶h'f'fM e'e'vc'bv m's'p'v's- `v'q'x Av't' k'v'ej'x Ges D'ch'j'³ KZ'e't'f'ji Z'v'¶'w'v'K Av't' k' Ab'j'm'i'Y

Awa`tekb cwi Kí bv

w` b t 05

mKvj 10.00-11.00

tgqv` Kvj t 60 wgbU

wk`ti vbvg	t tKvm`cpi vtj vPbv
Afxô` j	t grm` Awa` Bti i KgRZ`e,` Ges Ab`vb` m=c`thvi Y Kgr`
j`q`	t wks, gv, i l`K gvtQi Pvl welqK tKvm`U c`g t`tk tkl chS-c`k`q`Yv_x`p` i gva`tg cpi vtj vPbv Kivi m`thvM Kti t`qv hv`Z Zvt` i tKvb mgm`v ev wRÁvmv_vKtj tmUv mgvavb Kti wbtZ cvi
Dfí k`	t G Awa`tekb tk`l c`k`q`Yv_x`p`Y KBR c`x`wZ`Z tKv`tm`P mvgwM`K w`k`q`Yxq wel qw` cpi vtj vPbv Ki`teb Ges Zvt` i mgm`v ev wRÁvmv_vKtj tm,`tj vi mgvavb Ki`tZ cvi`teb

wel qm`P	Av`j vP` wel q	c`x`wZ	mgq
fvgKv			3 wgbU
	<ul style="list-style-type: none"> • `Mzg • ce@Z`P Awa`tektbi mvt`_ thvMf` `vcb • Pj wZ Awa`tektbi l ci Av`j vKciZ • D0`x`Ki Y 	e ³ Zv c`k`k`Ei	
wel qe`			52 wgbU
	<p>c`k`q`K mg`-c`k`q`Yv_x`p` i tK 2` `tj fvm Kti c`Z`K` `tj i bvgKiY Ki`teb Avmb e`e`v wK Kti 2 wU `j`tk g`f`Lvg`Lx Kti emv`tbv nte c`k`q`K GKwU `j`tk 1g l 3q w` tbi Av`j vP` wel q t`tk 15 wU msv`q`B c`k`e`w`be`Pb Ki`tZ ej`teb Abj`c`fv`te Aci `j wU 2q, 4_`l 5g w` tbi Av`j vP` wel q t`tk 15 wU msv`q`B c`k`e`w`be`Pb Ki`teb Df`q `j B w`be`PZ c`k`e`tj v DEimn mieivnKZ w`f`c`Kv`f`W` c`z`K c`z`Kfv`te wj L`teb c`k`q`K Df`q `j t`tk KvW`e`tj v mSM`h Ki`teb Ges c`Z` `tj i 10wU Dc`thvMx c`k`e` evQvB Ki`teb c`k`q`K tnvqvBU tev`f`W`GKwU t`vi tev`W` Aw`K`teb c`k`q`Yv_x`p` i tK 1,2,3..... mvgK b`e`f` t`qv nte Ges c`Z`K `tj GKRb `j`tbZv_vK`teb c`k`q`K ch`q`m`tg 7 t`tk 10 chS-GK `tj i c`k`e`tj v Ab` `j`tk Ki`teb Ges Rji tev`f`W`P w`m`x`v`S- Abj`v`q`x t`vi c`D`vb Ki`teb </p>	e ³ Zv c`k`k`Ei g`f`P`S`H So	
mvi -mst`q`c			5 wgbU
	<ul style="list-style-type: none"> • g`j wel q,`tj v cpi vtj vPbv • n`v`EAvDU weZiY • ab`ev` Ávcb 	e ³ Zv c`k`k`Ei	
c`k`q`Y mnvqK mvgM`k t tnvqvBU tev`f`W`P w`b`DRw`c`E, gvK`f, n`v`EAvDU, K`vj K`tj Ui BZ`w`			

Awa`tekb cwi Kí bv

w`b t 05

mKvj 12.15-14.00

tgqv` Kvj t 105 wgvbU

wk`ti vbvg	t mgvcbx Abp`vb l mb`cÎ weZiY
Afîô`j	t grm" Awa`Bti i KgRZ`e`
j`fî	t c`k`f`Yv_`f` i 5 w` be`wic AbjôZ c`k`f`Y Kv`p`ug tk`l Avb`p`wbK mgvcbx Abp`v`bi gva`tg mb`cÎ c`l`vb Kiv nte hv`Z Zui v AÎ c`k`f`Y j`ä Ávb Kv`R j`w`M`q bZb D``tg gvQ Pwl`f` i c`l`qv`Rbxq mn`th`w`MZv Ki`Z c`v`i`b`
Df`i`k`	t G Awa`tekb tk`l c`k`f`Yv_`f`Y Z`f` i AwRZ` Ávb m`ú`f`K`AvZ`c`Z``qx nteb Ges Av`vi mv`f`_ gvQ Pwl`f` i g`ta` g`f`v`f`m` tZj` w`c`qv` l c`v`z`vm P`r`f`l` i c`h`y` ³ m`c`h`vi`Y Ki`Z c`v`i`teb`

wel qm`P	Av`j`v`P` wel q	c`k`f`Y tK`S`kj	mgq
f`ig`Kv			5 wgvbU
	<ul style="list-style-type: none"> • `MZg • ce`Z`x`Awa`tekb`i c`p`i`v`j`v`P`v • eZ`g`vb Awa`tekb`i mv`f`_ m`st`h`M` `v`cb • Awa`tekb`i Df`i`k` e`v`L`v` 	c`l`k`w`E`i Av`j`v`P`v	
wel qe`´			95 wgvbU
	<ul style="list-style-type: none"> • Avmb web`vm • Avgw`šZ AwZw_`e`f` i Avmb M`h`b • `B Rb c`k`f`Yv_`f` e`3`e` • c`k`f`Y`K`e`f` i e`3`e` • Avgw`šZ we`f`kl AwZw_`M`t`bi g`ta` t`_t`K e`3`e` • c`h`vb AwZw_`i e`3`e` l mb`cÎ weZiY • m`f`v`c`w`Z`i e`3`e` 	e`3`Zv Dc`v`cbv	
mvi -mst`f`c			5 wgvbU
	<ul style="list-style-type: none"> • ab`ev` Ávcb` 	e`3`Zv	
c`k`f`Y mnvqK mvgM` t n`v`E`AvDU, t`n`v`q`v`BU te`w`w`w`b`D`R`w`c`E`, gv`K`f`, w`d`e`P`v`U` Abj`x`j` b`k`x`l`			

^K, wks I gv, i gvQ Pvl e'e'vcbr

ცხკეY-DEi gj 'vqb ckeI

me c0kie gvb mgvb | mWK DEti i cvtk@UKIPy (v) w b

cYgvb - 100

mgq - 25 wgvbu

big t c`ex t

Kg©j t

01. evsj vt` tk SIS gvQI cRwZ msL'v KZwJ?

- K) 145wJ
- L) 150wJ
- M) 143wJ
- N) Dcti i tKvbwJB bq|

02. wb±b wj wLZ tKvbwU wRI j gvQ ?

- K) tZj wcvq
- L) cvsMvm
- M) gv, i
- N) Dcti i tKvbwJB bq|

03. tKvb gvQtk Climbing Perch etj ?

- K) gv, i
- L) ^K
- M) Uwk
- N) Dcti i tKvbwJB bq|

04. tKvb gvQ Avqi tbi cwi gvY metPtq tenk?

- K) tZj wcvq
- L) cvsMvm
- M) gv, i
- N) wks|

05. wb±P wj wLZ tKvbwU K'vU wdk ?

- K) wks
- L) AvBo
- M) gv, i
- N) Dcti i me, tj vB|

06. tKvb ai tbi gvw gvQ Pvl i Rb` DcthvMx?

- K) t`vqwk
- L) j vj gvw
- M) GtUj
- N) tetj t`vqwk|

07. gvQ Pvl i metPtq AbKj wGBP gvI v tKvbwU?

- K) 3.5–8.5
- L) 7.5–8.5
- M) 4.0–10.0
- N) 7.0–9.0|

08. tKvbw gwUj cãvb Dcv`vb bq ?
 K) LwbR c`v_°
 L) ^Re c`v_°
 M) cwlb
 N) bvBtUtRb|
09. tKvb Gj vKvi gwUtZ c0KwZK Drcv`bkxj Zv Kg?
 K) htKvi
 L) vtUvi
 M) gapj Mo
 N) Kvgj +
10. gvQ Pwt i mePtq AbKj bvBtUtRtbi gvT v KZ?
 K) 15-20wg.M0./100 M0g
 L) 8-10wg.M0./100 M0g
 M) 20-25wg.M0./100 M0g
 N) Dcti i tKvbwUB bq|
11. wks, gv, i I ^K gvQ Pwt mæutK Lv` Awgt i gvT v KZ ni qv fvj ?
 K) 30-35%
 L) 20-25%
 M) 40-50%
 N) 12-15%|
12. Lv` I Lv` DcKiY wKifc `vtb msi qY Kiv DiPZ?
 K) cw i `vi I chfB Avtj v evZvmhjB `vtb
 L) Av` ev wfRv `vtb bq
 M) mi v mwi mthP Avtj vtZ bq
 N) Dcti i me,tj vB|
13. wks gvtQi GKK Pwt gRy NbZ;KZ?
 K) 200-250wU
 L) 100-150wU
 M) 400-500wU
 N) 250-350wU|
14. AYRxe tKvb&ZvcgvT vq fvj RbWq?
 K) 26-37°
 L) 20-25°
 M) 38-40°
 N) Dcti i tKvbwUB bq|
15. tKvbw Rie%enPT` msisi qTYi Rb` c0qvRb?
 K) mnbkxj gvT vq gvQ Avni Y
 L) Kvti>U Rvtj i e`vcK e`envi
 M) Acwi Kwr Z grl` Pvl mæcãvi Y
 N) Dcti i me,tj vB|
16. tKvb DcvqU gvQ Pwi ti vta mnvqK?
 K) Abt` i mvt_ c0ZthwMZvq Ask vbtq cK i wj R tbqv
 L) mgvtRi mKtj i mvt_ DEg mæuK eRvq bv i vLv
 M) mvgwRK 0t0 Rvotq cov
 N) Dcti i tKvbwUB bq|

17. tKvb KivRwU Ki t j evRv i gv t Qi `vg tewk cvl qv hvq?
 K) tQvU eo gvQ evQvB Kti evRv i bv cvVv t j
 L) evRv i cvVv t bvi A t bK Av t M t _ t K gvQ a t i t i t L
 M) Rxeš-gvQ evRv i RvZ Ki t j
 N) evRv i ` i bv t R t b evRv i RvZ Kiv |
18. wks gvQ w b t P w j w L Z t Kvb M t Y i A š f ?
 K) Perciformes
 L) Cyperniformes
 M) Siluriformes
 N) Clupeiformes
19. Walking Cat Fish t Kvb w U ?
 K) K
 L) wks
 M) gv, i
 N) U w K |
20. tKvb gv t Qi AvZwi 3 k j m h š t Av t Q ?
 K) K
 L) wks
 M) gv, i
 N) D c t i i m e, t j v B |
21. w f U w g b G G i A f v t e w K t i v M n q ?
 K) t e w i t e w i
 L) M j M E
 M) i v Z K v b v
 N) D c t i i t K v b w U B b q |
22. c w i e n t b i m g q t c v b v w K K v i t Y g v i v h v q ?
 K) A w t R b t f Z v
 L) G v t g v w b q v i g v t v e w x
 M) Z v c g v t v e w x
 N) D c t i i m e, t j v B |
23. c K t i i c w b i Z v c g v t v 10 j t m . t e t o t M t j g v t Q i L v M M t h t Y w K c w i e Z t n q ?
 K) K t g h v q
 L) w t Y t e t o h v q
 M) c w i e Z t n h b v
 N) w t Y K t g h v q |
24. t i Y y t c v b v Q v o v i A v t M c K t i n u m t c v K v g v i v i R b m v a v i Y Z t t K v b w K U b r k K c t q v M K i v n q ?
 K) w w w w U
 L) W v B G j w V b
 M) w V c U w i .
 N) D c t i i t K v b w U B b q |
25. c K t i G K e v i w b e o f v t e g v Q P v t i i c i c p : i v q g v Q P v l i i i A v t M w K K i v D w P Z ?
 K) c p i v q K / g v, i / w k s P v l K i v D w P Z
 L) t j v w c q v P v l K i v D w P Z b q
 M) K v t j v K v v D w t q m e w R t t t Z t q
 N) D c t i i t K v b U v B b v |

%K, wks I gv, I Pvl e`e`vcbv tKvm©
 tgv`Kvj t 5 w`b
 tKvm©gj`vqb cKæI

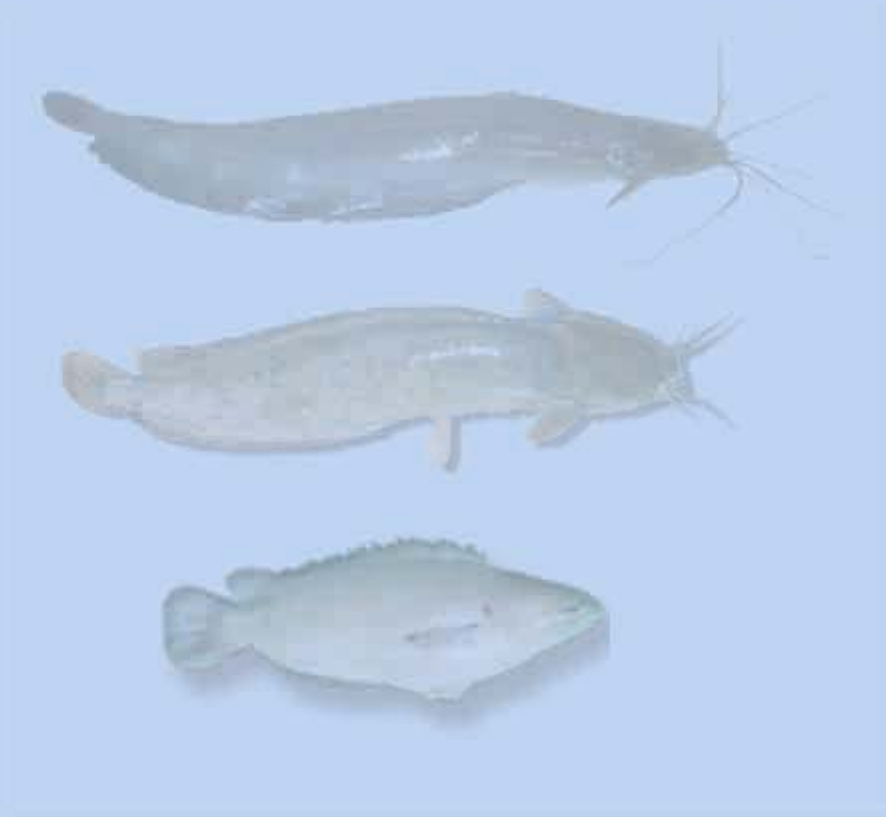
(mWK `v`b uJK (✓) wPy w`b)

1. mvgmMKfv`ie tKvm© uK Avcbv`i Rb` Dc`thvMx uQj ? n`u bv
2. tKv`tmP tgv`Kvj tKgb uQj ? Lp `xN© mWK Lp `f
3. tKvm©Dc`vcbv MvZ tKgb uQj ? Lp `Z mWK gŠi
4. ZvE`K I e`enwi K Awatektbi gta` mvgAm`Zv tKgb uQj ? Lp tekx e`enwi K mWK Lp tekx ZvE`K
5. c`k`q`K m`u`K Avcbvi avi Yv tKgb uQj ? Lp mnR mnR RvUj
6. tKv`tm`mi ei vnKZ c`k`q`Y mvgM`i gvb tKgb uQj ? Lp fvj fvj fvj bq
7. c`k`q`Y cwi tek tKgb uQj ? Lp fvj fvj fvj bq
8. c`k`q`Y e`euZ w`f`b`c`k`q`Y tKŠkj Dc`thvMx uQj uKbv n`u tgvUvgvU bv

c`k`q`Y tKv`tm`cwi Puvj Z w`f`b`Awatektbi Dci Avcbvi gZvgZ w`b (e`EvKv`i)

w`e`^`Awatektbi w`el qe`^, Dc`vcbv, c`k`q`Y mvgM`, tevaMg`Zv Ges mgq w`etePbv Kti mWKfv`te GKwU gZvgZ w`b |

Awatekb	tgvUvgvU fvj	fvj	Lp fvj		
1. tKvm©cwi wPvZ	1	2	3	4	5
2. %K, wks I gv,`ti Pvl m`vebv I A_`w`ZK `i`Zi	1	2	3	4	5
3. %K, wks I gv,`ti Rxe`w`P` I eZ`v`b t`c`q`v`c`U	1	2	3	4	5
4. %K, wks I gv,`ti Rxe`w`v`b	1	2	3	4	5
5. %K, wks I gv,`I Pvl`v`b w`e`P`b I c`k`i`i`%w`k`o`	1	2	3	4	5
6. %K, wks I gv,`I Pvl`g`w`U I c`w`b`i`f`Š`Z, i`v`m`v`q`b`K I `R`w`e`K `Y`v`e`j`x	1	2	3	4	5
7. %K, wks I gv,`I Pvl`c`k`i` m`v`i, cwi`tek`D`b`q`b I w`b`i`v`c`E`v`te`o`b`x`v`c`b	1	2	3	4	5
8. c`u`w`g`K Drcv`b`k`x`j`Zv`e`j`x	1	2	3	4	5
9. D`r`m`t`_`t`K` t`c`v`b` m`S`M`h` I`c`w`i`e`n`b	1	2	3	4	5
10. %K`g`v`q`i` t`c`v`b` m`S`M`h` I`L`v`e`e`v`c`b`v	1	2	3	4	5
11. `K`g`v`q`i` c`w`b`e`e`v`c`b`v,`t`i`v`M`I`S`m`K`w`b`Y`q`	1	2	3	4	5
12. `K`g`v`q`i`A`v`n`i`b,`e`v`R`v`i`R`v`Z`K`i`Y`I`A`w`v`_`R`w`e`t`k`i`Y`	1	2	3	4	5
13. wks I gvM`fi`i` t`c`v`b`g`R`j` I`L`v`e`e`v`c`b`v	1	2	3	4	5
14. wks I gv,`I`P`v`l`c`w`b`e`e`v`c`b`v,`t`i`v`M`I`S`m`K`e`e`v`c`b`v	1	2	3	4	5
15. wks I gv,`I`g`v`Q`A`v`n`i`Y,`e`v`R`v`i`R`v`Z`K`i`Y`I`A`w`v`_`R`w`e`t`k`i`Y`	1	2	3	4	5
16. cwi`te`k`i`I`c`i`w`b`e`o`/A`v`a`v`w`b`e`o`P`v`l`i`c`f`v`e`I``#`h`M`e`e`v`c`b`v	1	2	3	4	5
17. tKvm©c`b`i`v`t`j`v`P`b`v	1	2	3	4	5



কৈ, শিং ও মাঙৰ নাছচাষ ব্যবস্থাপনা কোৰ্চ