द्वैमासिक

कृषि

jif{%) efb|cflZjg @)&) cÍ #

;Dkfbs d08n

;Hfs
ho d'sGb vgfn

k|wfg ;Dkfbs
O{j/ k|;fb l/hfn

jl/i7 ;Dkfbs
j}s07 clwsf/L

;Dkfbs
;u'g zdf{kl08t
;kgf af:tf]hf

kmf6f]
cgk zdf{kf8]h
b]/fh ufnL
;'zLn clwsf/L

5kfO{ljt/0f
;kgf af:tf]hf
efhfgfy kf8]h
lx/f 9ª\uh
zDe'yfkf

;Dkfbs Lo

efb|cflZjg dlxgfdf klg s[fsx? cGo dlxgf h:t}v]:af/Ld}ljleGg s[if sd{df Jo:t e0{g}/xG5g\. cGgafnL, t/sf/L, kmnkm'n v]:L ug]ls;fgnfO{lbg/ft afnL s;/L /fdf]agfpg,]l;FfO, dn, afnL ;Hf0f cflbsf]rf;f]e0/fv]sf]xG5 eg]csf{km{ kzkfns ls;fgnfO{cfkm'n]kfNb}cfPsf] kzkHfLsf]s;/L plrt Joj:yfkg ug,[pTkfbg a9fpg]tf} tl/sfx? / /fuaf6 aRg]pkfosf]vf]hL e0/fv]sf]xG5 . To;}n] ;fgf-ltgf b]lv lnP/ hl6n ;d:ofsf] ;xfotfsf]nflu s[if;F ;DalGwt ;/sf/L tyf u} ;/sf/L lgsfo s[fssf];d:of xn ug{tTk/ /x]sf xG5g\.
To:t,}ufO{e}Lkfngdf vf]]t, Eofu't,] r/r/,] k6\s,] y'gnf,] afFmfkg, ;fn c8\sg];d:of, ue{tlxg];d:of h:tf ljleGg ;d:ofx? b]lvg ;Sg]x'gfn]To:tf ;d:oftkm{s[fsx? anfd};r]: x'gk5{. anfavt vfk nufpg] / /fdf]x]/rfx u/]df pTkfbg klg /fdf]x'g] / ltgaf6 hGdg]afR5f÷afR5L, kf8f÷kf8L klg :j:y x'g]xG5g\.

nlyx? k7fpbF Wofg lbg'kg]{s'/fx?

!= o; klqsfdf hf]sfxLn]k7fPsf]gkfnL efiffdf nlvPsf]s[if k|jlw u|x0fdf xfl;n cg'ejhGo nlynfO{:yfg lbOg]5 . ;fy}s[if ljsf;df 6]jf k'Ug];fdflhs cfly{s kIfsf] ljZnlf0ffTds /rgfnfO{klg plrt :yfg lbOg]5 .

@= pkofuL cgbLt nlynfO{klg :yfg lbOg]5, t/ d'n nlyssf]gfd / lstfasf]gfd klg pNnly ePsf]x'gkb5 . cfwf/ lnOPsf]nly eP ;f]klqsf jf lstfasf]gfd klg pNnly ug'{kb5 .

#= nlyssf]gfd, kb, cfkm' sfo{t sfofno / 7ufgf :ki6;F pNnly x'gkb5 . sfNklgs gfdaf6 5kfpg rfx]hgfpg'kb5 .

$= nlyx? k7fpbF lk|t kmG6 -!^ kf0G6_ df 6fOk ul/Psf]/ rf/lt/ !÷! O{r 5f8]/ nlysf] k|sf/ x]/L a9Ldf !%)) zAbdf nlvPsf]x'gkg5 / ;f]nlynfO{s[if ;'rgf tyf ;+f/ s]b|sf]O{dn agroinfo@wlink.com.np df k7fpg jf cfkm}cfP/ klg ;DalGwt zfvfdf a'emfpg ;lsg5 .

%= nlynfO{pkoQm kmf6f]k7fPdf ltgnfO{;dt ;dfjz u/L nlyx? k|sflzt ul/g5 .

^= nlysn]nly k|sflzt eP jfkt kfpg]kfl/>lds nly k|sflzt ePsf]Ps jif{leqdf lnO{ ;Sg'kb5 .

&= o; klqsfdf k|sflzt nlyx?sf]cfEzs jf k'Of{efu hf]sfxLn]klg k|sfzg ug{kfpg5, t/ klqsfnfO{;Gbe{;fdfu|sf]¿kdf lglbi6 ug{cg'/fw ul/G5 .

*= k7fOPsf nlyx? 5fKg]g5fKg]jf sxL kl/dfhg u/L 5fKg];Dk'Of{clwsf/ k|wfg ;Dkfbsdf lglxt /xg5 / dfly pNnlvt dfkb08 k'/f gePsf]nly 5fKg ;Dkfbs d08n afWo x'g] 5g . ck|sflzt nly lkmtf{lbg ;Dkfbs d08n afWo x'g]5g .

nlyx?sf]k|sf/ / kfl/>lds

! dflhs cWoog / cg';Gwfgsf]glthf / vf]hsf]cfwf/df s[if ljsf;sf]ljleGg kIfdf ;xofu k'Yofpg]nly !@))-!^))

@ ;Gbe{sf]cfwf/df tof/ kl/Psf]nly !)))-!@))

cg'ej Pj+;kmntfsf]cfwf/df tof/ kfl/Psf]nly *))-!)))

$ h=l6=P / a9L cfdf %))-^))

% sljtf, s]tkfOnfO{yfxf 5 < s[if ultljlw / cGo 5f6f nlyx? #))-$))

^ kl:tsf !%))-@)))

o; klqsfnldf k|sflzt nly, /rgf cfbLsf]ljifo tyf ljrf/x? nlyssf]lghL x'g]ePsf]n] o;df ;Dkfbs d08n tyf s[if ;'rgf tyf ;+f/ s]b| hjfkmbxL x'g] 5g .

ljifo ;l'r

kz' cfxf/df 8fn]3f]F sf]pkofu !

o; sf/0fn]cf]lgk5{s[if cg';Gwfg, k|;f/ / k7gkf7gnfO{Pp6}5ftfn] &

:yfgLo >f]t s[fs sf]klxrfg, ljsf; tyf kl/rfng (

b'wdf xg;Sg]sf]lnkmda{f/]hfgsf/L !#

✍ k|jL0fs'df/ ltjf/L*

hfgsf/L M t/sf/L g;/{Lsf kmf0bfx? !$

;x/sf]5t / sf}zLdf v]tL !%

ufO{kfngsf]dxTj !&

ufj]hel8f afnLdf nfUg]9';L hGo /fu]x?sf]/f]syfd Pj+lgoGq0f lalw !(

✍ zf]lef 9sfn**

g]kfnsf]s[if ljsf; $

g]kfndf s[if ljsf; @%

g]kfnsf]s[if ljsf; @^

lk8fn' @

s[if k|alw k|;f/df :yfgLo Pkm=Pd=/]8of]sf]el'dsf @(

kmnkm'n / dfgj :jf:y #@

s[if Joj;flos/0fdf b]lvPsf];d:of / ;dfwfg $

h]6L=P= / a9L cfdf M s[if aLdf u/f} #^

kz' cfxf/df 8fn]3fF;sf]pkofu]

✍ gd{ k|;fb j:tL*

8fn3fF; dWokxf8L e]udf dH=g / b]lv hj]7 ;Dd v'jfO{g]kz'cfxf/sf]dVo >f]t xf]. pRrkxf8L e]udf r/g Ifdq k|z:t x'g]/ k|foM ufO{:tx? r/fP/ kfl/ng]x'gfn]a9Ldfqfdf 8fn3fF;sf] k|of]u u/]sf]kfOg\ . To:t}t/fOdf klg kmfNug' r'g\ ;Dd hldg cf];nf]/lx/xg] uxFtyf bfnafnLx? v]tdf g}x'g]x'gfn]xl/of3fF; clncln kfO{g]x'gfn]a9Ldfqfdf 8fn3fF;sf] k|of]u u/]sf]kfOg\ . dWokxf8L Ifdq hxfFdflg; / kz'sf]3gTj a9L 5, sd l;Ff0 le/fnf] hUuf, sd kfgLsf]>f]t cflbn]ubf{lxpbFsf] ;dodf hldg vfnL /xg]x'gfn]xl/of3fF; sd} kfO{5 / xl/of3fF;sf]?kdf 8fn3fF;df g}e/ k/]sf]kfO{5 . o; n]vdf dVo $ j6f kf]lOftTjx? -;Vvf kbfy{ sRrf kf]l6g, SofldN;od / km:kmf/];_ / Ps gsf/fTds tTj -6\oflgg_ nfO{cfwf/ dfgL 5§f 5§}8fn3fF;x?sf]kz' cfxf/df k|of]usf]nflu ljZn]if0f ul/Psf]5 . ;Vvf kbfy{e{gfn]xl/of3fF;df ePsf]kfgL s6fP/ afFsL efunfO{dflg{5, ;Vvf kbfy{ a9L ePsf]8fn3fF;n]yf/]h]klg a9L kzhfO{ kU5, t/ kf]lOf tTj eg];Vvf kbfy{a9\b} hfFf 36\b}hfg]x'G5 . ;Vvf kbfy{sd ePsf] 8fn3fF; vfgfn]slxn]sfxL+kz'j:t'df 5g\ ;d:of klg b]lv{5 . 8fn3fF;df ePsf] gfO{6fkhgsf]k|tztnfO{^=@% n]uOff ubf{ sRrf kf]l6gsf]k|tztcfpF . ;a}gfO{6fkhg kf]l6g xfO{g\. o;n]vdf kf]l6gsf]k|tztnfO{ cfwf/ dfgL a9L kf]l6g, Sofln;od / km:kmf/]; ePsf]8fn3fF;nfO{/fdf]elgPsf]5 . s'g}s'g} cj:yfdf eg]kf]l6g, SofldN;od, km:kmf/]; gsf/fTds tTjx? h:t}oflgg, lnUgg cflb;Fu afO{8 -hf]l8P/_ a;]sf]x{5 h;n]ubf{kz'n] lng kfpb\g . oL tLg tTjx? bW lbg]hgfj/, x'sk}u/]sf kf8f kf8L, kf7f kf7Lsf]nflu clt cfjZos x{5 lsgsL bWdf oL tLg}tTj a9L x{5 / x'sk}u/]sf kf8f kf8L, kf7f kf7Lsf] x88L dhjb agfpg SofldN;od / km:kmf/]; clt cfjZos x{5 . o; n]vdf yf/]}dfqfdf n]vssf]cg'ej, 8fn]3fF;jf/]bv];g]sf s'/fx? / kz'j:t'sf v'jfP/ x/]sf]cfwf/df ljZn]if0f ul/Psf]5 .

sfe|](*Ficus lacor*)

sfe|]lxpbdf kft emg\/ r'g\ j]zfvdf gofF kfn'jf cfpg]8fn]3fF; xf]. sfe|]tLg lsl;dsf x{5g\ nx/]sfe|] /ftf]sfe|]/ ;]f]sfe|]. nx/]sfe|]/ ;]f]sfe|]sf]?v 7\hf]x{5 t/ nx/]sfe|]sf]eg]Tolt 7\hf]xbg . kxf8, j]L / 6f/x?df af/Lsf]5p5fp, uNnLsf]jl/kl/, v/af/L cflbdf sfe|]sf]?v nufpg]rng x{5 h:n]ubf{v]tdf ;]k nfUg (Shading effect) sd x{5 . sfe|]sf]?vdlg v]tL /fd]xbg . o;sf]k|;f/0f aLp (sexual propagation) / sl6Ë (asexual propagation) b'j}af6 x{5 . ;fwf/0ftofM c;f/ >fj0fdf o;sf]xfFf sf6/] ;fg]rng x{5 . h:n]ubf{$–% jifk{l5 g} 3fF; sf6g ;lsG5 . sfe|]bfp/f, 3fF; / kf6 -/]f_ df kbfu x{5 . xfFf 7\hf]7\hf]xg]x'gfn] 3fF; sf6k{l5 kz'j:th]gvfPsf]xfFf bfp/fdf kbfu x{5 . o;sf]7\hf]xfFf afaf6 kf6 sf9/] kz'j:t'af6g]bfDnf]gfDnf]/ 8f/L agfpg] rng 5 . lxpbF;lsPkl5 ;Vvf v8/]df kfn'jf cfpg]x'gfn]xl/of]3fF; gePsf];dodf w/]}

/fdf]8fn]3fF, b'w lbg]kz'sf]nflu k|ofu]
ul/G5 . w/]}slnnfdf 3fF, sf6\bf ;Vvf kbfy{
sd b]lvg]/ ;Vvf kbfy{sf]cfwf/df @)-@!
k|ltzt qm8 kf]6g b]lvPsf]klg 5 . slnnfdf
3fF,sf]k|ofu] x'g]x'gfn]6\oflggsf]-6/f]kbfy{
dfqf sd x'G5 / kz'n]v'a dg k/fpF5 t/
kft l5lKkb}uPkl5 kz'n]Tolt /fdf];F dg
k/fpF5g\ sfe|sf]8fn]3fF, rqb]lv hi]7;Dd
pknAw x'G5 . slnnfdf kz'n]a9L dg k/fpg]
x'gfn]slxn]sfxF a9L vfPdf ckr (impaction)
x'g]x'G5 . To; sf/0f k/fn / sfe|sf]8fn]
3fF, -@M!_ sf b/n]v'jfpF bw klg /fdf];F
cfpg]kf8f, afR5f, kf7f, kf7L /fdf];F x'sg]
x'G5 . kxf8sf]tNnf]efu, a}+L / 6f/x?df
;Vvf df}ddf xl/of]3fF, sd ePsf];dodf
sfe|]3fF, w/]}/fdf]x'G5 . Pp6f b'x'gf e}+L,
xn uf]? / @-$ j6f afvf kfng ug]ls;fgn]
$-% j6f sfe|sf]?v x'sf[pg ;sdf kz'
cfxf/fdf lgs};lhnf]x'G5 . k|ofu]zfnf
k/LIf0faf6 #@-## k|ltzt vVvf kbfy{(dry
matter), !)-!@ k|ltzt sRrf kf]6g (crude
protein), @-@=& k|ltzt SofIN;od,)=@)-)=@^
k|ltzt km:kmf/]; / !=)$ k|ltzt 6\oflgg
(Tanin) sfe|sf] kftdf kfO{Psf] 5 .

vGo"(*Ficus cunea/ semicoedata)*
dWo kxf8L Ifqdf af/Lsf]sfGnfdf vGo"w/]}
/fdf]kfO{Psf]5 . vGo"nfO{s'g}7fpFdf vgfof]
/fO{vGo"cflb eGg]ul/G5 . o;sf]k|;f/0f
aLpaf6 g}x'G5 . klx/f]uPsf]7fpFdf r/fsf]
lji6faf6 pd'g]x'gfn]jg]f{sf]Tolt cefj xF5g .
t/ #-$ jif{hlt /fdf];u+ lxpFdf hldg vfnL
ePsf];dodf ;fgf]af6nfO{6]jf ;lxt af/
aGb]h u/] x'sf[pg]rng x'G5 . ;a]h;f]8fn]
3fF, hldg vfnL ePsf];dodf o;}lsl;dn]
;/Hf0f u/] x'sf[pg /fdf]x'G5 . vGo";bfaxf/
xl/of]e0/xg]8fn]3fF, ePsf]x'gfn]sflt{sb]lv
hi]7, c;f/;Dd kz'nfO{v'jfpg]rng 5 .
afvf kfngsf]nflu of]8fn]3fF, clt g}
pkofu]L x'G5 . To:t}hf]g]uf]?, yf/f ufO{
e}+L, kf8f kf8L cflbsf]nflu w/]}/fdf]8fn]
3fF, xf]. b'x'gf ufO{e}+Ldf Tolt b'w pTkfbg
ga9\g]x'gfn]b'x'gf afx]snfO{v'jfpg]rng
klg 5 . vGo"sf]kftdf #@-#$ k|ltzt ;Vvf
kbfy{!!-!@ k|ltzt sRrf kf]6g, @=%% k|ltzt
SofIN;od,)=!(k|ltzt km:kmf/]; / @=$*
k|ltzt 6\oflgg ;Vvf kbfy{sf]cfwf/df kfO{Psf]
5 . vGo"sf]klg 8fn]3fF, bfp/f / kf6 -/];f_
df k|ofu] x'G5 . jif{sf] b'O{ rf]6L
-sflt{s / c;f/_ df kfyL vGo"sf]kmn nfUg]
u5{. kfs]sf]kmn dflg;n]vfg]rng klg 5
/ clt ld7f]x'G5 . vGo"sf]bfp/f w/]}/fdf]
x'G5 . ;Vvf kbfy{a9L x'g]x'gfn]yf/]}3fF,n]
klg w/]}kz'x?nfO{k/fn;F ld;fP/ v'jfpg
;lsG5 . vGo"dWo kxf8L eu]df /fdf]x'G5 t/
lxdfnL efu / ;Vvf 6f/x?df vGo"/fdf];F
km:6fpbg] .

6fFsL *(Bauhinia purpurea)*
6fFsL Ps g/d kftePsf]b'wfn'kz'x?sf]nflu
/fdf]sf]z]8fn]3fF, xf]. ;a]h;f]7fpFdf 6fFsL
g}eg/] lrlgG5 . of]8fn]3fF, dWo kxf8b]lv
a}+L, 6f/x? / leqL dw]; cflb ;a}7fpFdf
kfO{5 . o:sf]k|;f/0f aLpaf6 g}/fdf]x'G5
aLp ;f]em} rfx]sf]7fpFdf /f]k]klg x'G5 /
kf]nlygsf]yn]afdf pdf/] g;{Ldf Ps jif{
xlsPkl5 af/Lsf]sfGnf, v]tsf]5]p5fp cflbdf
;fbf{/fdf]x'G5 . of]8fn]3fF, aLp /f]k]sf]@-#
jif{leqdf g}xfFf sf6] kz'nfO{v'jfpg
;lsG5 . dlnnf]7fpFdf l5§}x'sg]x'gfn]w/]}
jif{sl//xg'kbg] . of]8fn]3fF, ;a}df}ddf
v'jfpg ;lsG5 t/ cflZjgb]lv kmfu'g;Dd
xfFf sf6] v'jfpF 3fF,sf]?vnfO{klg c;/
gkg]/ ;Vvf kbfy{klg a9L k|ltzt x'g]x'gfn]

c? ;dodf gsf6\g'g}/fd[]xG5 . ev{ AofPsf kf8f kf8L, kf7f, kf7L, afR5f, afR5Lnf0{3fF; vfg]afgL a;fpg of]8fn]3fF; v'jfpg]ul/G5 . b'wfn' e}L, uf0{/ ev{ AofPsf dfp afv[sf] nflu of]Ps clt pQd 8fn]3fF; xf]. o;sf] kftdf !$–!& k|tzt;Dd jl:nf xfl; s8 k|]6g -sRrf k|]6g_, SofIN;od @=$ k|tzt / km:kmf/;)=#) k|tzt, ;Vvf kbfy{##–#$ k|tzt / 6\oflgg (Tanning) !=@ k|tzt ;Vvf kbfy{sf]cfwf/df kf0{5 . k|]6g / SofIN;od a9L ePsf]xbfn]x'sk}u/sf kf7f, kf7L, kf8f, kf8Lsf]nflu / ng}f]e}Lsf]nflu of]8fn]3fF; / k/fn ld;fP/ v'jfpbFf /fd[]bW pTkfbg xbg] / x'sk}u/sf kf8f, kf8L /fd[]; x's{g] xG5 . of]8fn]3fF;df vf;}To:tf]ckfRo tTj 5g\ / lxpbFsf];dodf v'jfpbFf ;d:ofx? sxL cfpb\g .

a8x/ *(Artokarpus lakucha)*

a8x/ g]kfnsf]dWo kxf8L efub]lv leqL dw};Dd kf0{g]8fn]3fF; xf]. o;sf]kft afSnf]/ a9L ;Vvf kbfy{xbg]xbfn]a9L cfl8nf] 8fn]3fF;sf]?kdf ln0{5 . df}d / x's{g] ;do cg';f/ o; 8fn]3fF;sf]kftdf #)–## k|tzt;Dd ;Vvf kbfy{(dry matter), !#–!$ k|tzt;Dd sRrf k|]6g, @ k|tzt;Dd SofIN;od /)=@& k|tzt km:kmf/; /)=%& k|tzt 6\oflgg (tannin) kf0{5 . a8x/sf]ag]f{ x'sf{pg / aLp pdfg{Tolt ;lhnf]5g\ . To; sf/0fn]ubf{of]8fn]3fF; /fd[]ePklg Tolt w/]}7fpbFf b]lvbg\ . a8x/sf]ag]f{x'sf{pgsf] nflu kfs}sf]kmnaf6 aLp lgsfnL t?Gt g} dlnnf]df6f]e/}sf]knfli6s y}nf]df /f]kL xfNgk5{. laofF;'sk]l5 o:sf]pd]g ;Sg]zlSt 36\b}hfG5 . ag]f{nf0{anf anfdf kfgL lbP/ lztn 7fpFdf /fVgk5{. Ps jif{g;{ldf ag]f{ x'sf{k]l5 af/Lsf]sfGnf tyf vfnL 7fpFdf ;fgk{5{. ;f/]kl5 klg ljzi]f Wofg glbP of] 8fn]3fF;sf]ag]f{x's{g ;Sb\g . ag]f{;f/}sf] $–% jifk]l5 dfq o; 3fF;sf]xfFf sf6\g ;lsG5 . of]8fn]3fF;sf]v]L afnLdf Tolt ;]k (shedding effect) 5g\ . of]Ps kte8 lsl;dsf]8fn]3fF; xf]/ o;sf]xfFf sflt{sb]lv km]fug;Dd sf6\g ;lsG5 . ng]f e}L / b'wfn' uf0{sf]nflu k/fn;Fu ld;fP/ v'jfpbFf b'W / l3p pTkfbg /fd[]xG5 . ;a}h;f]8fn]3fF;df 6\oflgg (Tanin) eG\g]6/f]kbfy{xG5 / a8x/sf] kftdf klg of]ckRo kbfy{xG5 t/ Tolt a9L gxbg]xbfn]b'W pTkfbgdf vf;}c;/ ub\g . 6\oflgg -6/f]kbfy{ % k|tzt;Dd ;Vvf kbfy{sf]cfwf/df xbFf sxL c;/ xbFg t/ % k|tzt eGbf a9L ePdf kz'nf0{v'jfpbFf -nfdf];do;Dd_ b'W pTkfbgdf sdL xbg]/ b'Anfpb}hfg]xbg ;S5 .

s6\d/f] *(Litsea poliantha/monopotela)*

s6\d/f]Pp6f g/d kft / 8fF ePsf](Softwood) 8fn]3fF; xf]. of]3fF; g]kfnsf]dWo kxf8L efub]lv leqL dw};Dd af/Lsf]sfGnf, v]taf/Lsf] 5]p5fp cflbdf nuf0{5 . s6\d/f}sf]kft dl;gf xfFf la=f ;j}kz'j:t'n]v'a dg k/fP/ vfG5g\. of]8fn]3fF;sf]kftdf !$–!^ k|tzt;Dd sRrf k|]6g, ;do / kfn'jfsf] cj:yf cg';f/ #)–#$ k|tzt;Dd ;Vvf kbfy{ !=^^ k|tzt SofIN;od,)=#$ k|tzt km:kmf/; / @ k|tzt 6\oflgg (Tannin) kf0{Psf]5 . b'W lbg]uf0{e}L / uf? cflbsf]nflu of]/fd[] 8fn]3fF;df k5{. b0{ltxf0{efu k/fn / Ps ltxf0{efu s6\d/f]ld;fP/ v'jfpbFf b'W pTkfbg /fd[]xG5 . 6\oflgg (Tanning) eG\g]6/f]kbfy{ o; 8fn]3fF;sf]gofFkfn'jfdf a9L xbg]xbfn] nfdf];do;Dd s6\d/f]dfq v'jfpbFf lk;fjsf] /=a /ftf]xbg]klg b]lvG5 . To;}sf/0fn]8fn] 3fF; dfq glb0{k/fn;Fu lbbFf xl/of]3fF;sf]

art klg xg]/ pTkfbg klg /fdf]xg]xgfn] s6\d/f]cyjf c? 8fn]3fF, dfq glbO{k/fn, gn, ds}sf]vf]6f cflb ld;fP/ v'jfpg /fdf]

xG5 . s6\d/f]sf]k|;f/0f aLpaf6 g}/fdf]xG5, aLp g}rflxPsf]7fpFf /f]g]cyjf g;{Ldf a}gf{x'sfP/ a}gf{;fg]ubf{klg xG5 . a}gf{ ;f/}sf]@–# jif{df g}xfFf sf6\g ;lsG5, of] 8fn]3fF, l5§}x'sg]/ af/Ldf ;]k (sledding effect) klg sd xg]xgfn]af/Lsf]sfGnf / 5]p5fpdf nufpFf /fdf]xG5 .

x/f]-*Terminalia chebula*_

x/f]Ps s8f sf7 (Hard wood), afSnf]kft, ;Vvf kbfy{$#–$^ k|tzt;Dd ePsf]8fn] 3fF, xf]. of]8fn]3fF, dWo kxf8L efub]v a]L;Dd kfOG5 . o;sf]kftdf &–!% k|tzt;Dd -kfn'jfsf]cj:yf / ;do cg';f/_ sRrf kf]6g kfOG5, To:t}SofIN;od !=@$ k|tzt, km:kmf];)=@& k|tzt / 6\oflgg eGg]6/f]kbfy{!# k|tzt;Dd kfOPsf]5 . x/f]hf]g]uf?, yf/f ufO{e}L, afvf cflbnfO{k/fn;F ld;fP/ v'jfpFf /fdf]xG5 t/ bW lbg]hgjf/x?sf] nflu 6\oflgg (Tannin) a9L ePsf]xgfn]Tolt /fdf]xFg . x/f]dfq nfdf];do;Dd v'jfpFf bW pTkfbg 36\b}hfg] kz'bAnfpF}hfg]/ kl5 ynf kg]klg b]vG5 . To;sf/0f bO{efu k/fn / Ps efu x/f]sf]xl/of]8fn]3fF, v'jfpg /fdf]xG5 . kftdf 6\oflgg (Tannin) a9L ePsf] xgfn]of]8fn]3fF, rq;Dd klg xl/of]/xG5 / kftdf sL/f klg nfUbg / b]bf xl/of]lrNnf] kft b]vG5 . o; 8fn]3fF, sf]k|;f/0f aLpaf6 g}/fdf]xG5 . s8f sf7 / a9L 6\oflgg ePsf] xgfn]ls/f gnfuL o;sf]la?jf /fdf]F xlsG5 . $–% jif{df dfq xfFf sf6\g ;lsG5 . kfs] em/}sf]aLp, ufO{j:t'afvfn]vfP/ uf]/af6 klg aLp pdg]xgfn]vf;}g;{L Joj:yfkg u/}sf]klg b]vbg, pldPsf]7fpFf ;/Hf0f ul/lbPdf x/f]sf]la?jf xlsxfN5 . afof]df; (Biomass) a9L xg]/ a9L ;do;Dd xl/of] a:g]kftdf sL/f k§s}gnfUg]xgfn]bW lbg] kz'eGbf c? kz'x?sf]nflu Ps ltxfO{efu k/fndf ld;fP/ lxpFsf]xl/of]3fF, sf]sdLnfO{ kl't{ug{x/f]/fdf]g}xG5 .

j/f]*(Terninalia belerica)*

j/f]klg x/f]h:t}6/f]kbfy{kftdf a9L ePsf] 7'nf]j[f xg]8fn]3fF, df k5{. of]8fn]3fF, dWo kxf8L e]ub]v t/fO{sf]h+tndf klg b]g ;lsG5 . x/f]h:t}a9L afof]df; (Bio-mass) pTkfbg xg]xgfn]@–$ j6f ?v s[fsx?n] nufpg]u/}sf]kfOG5 . o;sf]kft x/f]sf]eGbf l5§}emg]/ sL/f klg cln a9L nfUg]xgfn] sflQ{sb]v df3;Dd xfFf sf6] kz'j:t'nfO{ v'jfpg ;lsG5 . of]8fn]3fF, kz'j:t'n]Tolt dg k/fP/ vfbgg\. b'xgf ufO{e}L eGbf c? yf/f] hf]g]uf? cflbnfO{k/fndf Ps ltxfO{ ld;fP/ lxpFsf];dodf xl/of]3fF, sf]kl't{ ug{;lsG5 . k|ofuzfnf k/LIf0faf6 o;sf] kftdf !!–!@ k|tzt;Dd sRrf kf]6g, #$–#% k|tzt ;Vvf kbfy{(dry matter), #=#% k|tzt SofIN;od,)=#& k|tzt km:kmf]; / 6\oflgg (Tanning) !@=$^ k|tzt b]vPsf]5 . a/f]sf] j[f 7'nf]xg]xgfn]afnLgfnLdf ;]k a9L xG5 . v/af/L, v]tsf]5]p5fp / jgj6Øfgdf a/f] nufpg]rng xG5 . csf]kIf eg]sf]o;sf] xfFfljt+f a9L xg]xgfn]bfp/fsf]?kdf a9L k|ofu xG5 / kmlg{/ cflbdf klg a/f]sf]sf7 k|ofu xG5 . a/f]sf]klg aLpaf6 g}k|;f/0f xG5 / ;lhn}F la?jf xlsG5 . t/ ^–& jif{df dfq xfFf sf6] kz'j:t'nfO{v'jfpg ;lsG5 . a9L 6\oflgg ePsf]xgfn]SofIN;od a9L ePklg bWfn'kz'n]a/f]vfPsf]a]nfdf bW sd lbG5 . 6\oflggn]SofIN;odnfO{afOG8

(bind) ug{ x'gfn] o:tf] x'g uPsf] xf]. sf0f/fnf] *(Bauhinia variegata)*

6fFLsf]h:t}kft bl/vg,] dWo kxf8bl/v t/fO{sf] hu+n;Dd 7'nf]jl[ifsf]?kdf sf0f/fnf]kfO{G5. o;sf]km'n / sf]knf t/sf/L / crf/df k|pfu xG5. sf0{fnf}sf]kftdf #%–#* k|tzt;Dd ;Vvf kbfy{!#–!$ k|tzt;Dd sRrf kf]6g, !=^^ k|tzt SofldN;od /)=#$ k|tzt km:kmf/; kfO{G5. x}bf{6fFLsL h:tf]bl/vPklg 6/f]kbfy{(Tannin) a9L x'g]x'gfn]kz'j:th] /fd|}F dg k/fP/ vfPsf]bl/vbg}. xl/of]3fF; sd ePsf];dodf cflZjgbl/v kf/f;Dd sf0f/fnf}sf]xfF:ff sf6/] b'x'gf ufO{e}+LnfO{eGbf yf/f]ufO{e}+L, hf]lg]uf?] cflbnfO{k/fn;F ld;fP/ lbbf /fd|]xG5. x/f]a/f]sf0f/fnf] 6\oflgg (tannin) a9L ePsf 8fn]3fF;x? x'g\. sf0{fnfdf SofldN;od / kf]6g /fd|}dfqfdf bl/vP klg 6\oflggn]afO{8 (bind) ug{x'gfn] kz'j:th]kf]if0f tTj /fd|}F lng kfpbg}gg\. 6\oflggsf]c;/ 36fpg ;s}Dd kft sd l5lKkb}df 8fn]3fF; sf6g,] k/fn / c? eO{ 3fF;F ldnfP/ v'jfpg]ug{;lsG5. h;n] ubf{6\oflggsf]c;/ sd x'g hfG5. kftdf 6\oflgg a9L ePsf]sf/0fn]sf0{fnf}sf]agf{ klg ;lhn}x'sG5 t/ 7'nf]jl[if x'gfn]xls{g ;do a9L g}nfUg]xG5. ;fwf/0ftof ^–& jif{ kl5 dfq 8fn]3fF;sf]?kdf sf0{fnf]sf6g ;lsG5. 7'nf]jl[if x'gfn]o;sf]pkofu kmlg{/, bfp/f, km'n sf]knfaf6 t/sf/L crf/df klg k|pfu ug{;lsG5.

baba]*(Garuga Pinnata)*

baba]g/d sf7 ePsf,] l5§}xls{g,] dWo kxf8bl/v t/fO{Dd x'g]8fn]3fF;df k5{. o;sf]k|;f/0f xfF:ff sf6/] (cutting) ug{;lsG5. Ps 8}g ld6/ nfdf]xfF:ff sf6/] ;fe}rflxPsf] 7fpF:ff uf8bf baba}sf]?v xls{G5. o;sf] afnLgfnLdf ;}k klg xF:g / hg;'s}kz'h]klg /fd|]dg k/fP/ vfG5. k|pfluzfnf k/LIf0faf6 baba}sf]kftdf #)–## k|tzt ;Vvf kbfy{!!–!@ k|tzt sRrf kf]6g, @=!% k|tzt SofldN;od,)=#% k|tzt km:kmf/; / @=@^ k|tzt 6\oflgg bl/vG5. kf]6g / SofldN;od /fd|}x'g]/ 6\oflgg sd x'g]x'gfn]kz'h]v'a dg k/fP/ baba]3fF; vfG5g\. t/ o;sf] kftdf 6\oflgg sd ePsf]x'gfn]l5§}kft sL/fn]vfg]/ em}gxG5. babj]Ps jif{df bO{ k6s;Dd 8fn]3fF;sf]?kdf sf6\g ;lsG5. cflZjgbl/v dh+;/;Dd Ps k6s / csf{k6s j}zfvbl/v c;f/;Dd xfF:ff sf6\bf /fd|]xG5. jif{df Psrf{L dfq xfF:ff sf6\bf xfF:ff 7'nf]x'g] / kft cyjf xl/of]3fF; sd x'g]x'gfn]jif{df bO{k6s 8fn]3fF; sf6\bf /fd|]xG5. baba}sf] c? afnLdf Tolt ;}k gnfUg]x'gfn]v}af/Lsf] sfGnfdf /fd|f];F nufpg ;lsG5.

lgdf/f]*(Fucus roxbourghi)*

lgdf/f] Ps 7'nf]kft x'g]8fn]3fF; xf]/ o;sf]km}nfj6 pRr kxf8bl/v dWo kxf8;Dd xG5. j}+L / leqL dw} cflbdf Tolt bl/vbg}. g/d sf7 ePsf]x'gfn];fgf ;fgf xfF:ff ljut, kft ;a}kz'h]dg k/fP/ vfg]u5g}. lgdf/f}sf] kftdf @$–@& k|tzt;Dd ;Vvf kbfy{!$–!% k|tzt sRrf kf]6g, @=&(k|tzt SofldN;od,)=@$ k|tzt km:kmf/; / @=(^ k|tzt 6\oflggsf]dfqf bl/vG5. b'x'gf, yf/f,] hf]lg] uf?] cflb ;a}kz'j:th]/fd|}F dg k/fP/ vfg]x'gfn]Ps ltxfO{k/fn;F ld;fP/ v'jfpbF; /fd|]xG5. cflZjgbl/v km'fug';Dd lgdf/f}sf] 8fn]3fF; sf6\g ;lsG5. o;sf]k|;f/0f aLpaf6 g}/fd|]xG5. t/ lxhf{cfh l6:o'sNr/ (Tissues Culture) u/] klg lgdf/f,] a8x/ h;sf]aLp sd x'g]/ l5§}pdf/ zlSt 36g]x'gfn]lj?jf pTkfbg u/}sf]kfO{G5. ufpF3/df o:tf]kjlwsf] kxF: sd ePsf]sf/0fn]aLpnfO{cyjf kfs}sf] km'nnfO{g;{Ldf ag}f{x'sf0{{;fg{;lsG5.

lgdf/fsf]agfg{g;{ldf tof/ u/L af/Lsf]sfGnf, 5p5fp cflbdf ;fg{;lsG5 / /fdf];/Hf0f ePdf #–$ jif{df 8fn]3fF; sf6\g ;lsG5 . lgdf/fsf]kft rf8f xg]xgfn]ufpF3/df efh et/sf]nflu bgf 6k/L agf0{kofu u/sf]klg kf0{G5 .

a8hf](*Ficus clavata*)

sxL 7fpF; a8hf]/ sxL 7fpF; Uof8hf]eg/ lrlgg]of]8fn]3fF; vG"h:t}kft ePsf] xG5 . vG"sf]?v sxL 7hf]xG5 eg]a8hfsf] ?v cln ;fgf] j';L (bushy) lsl;dsf] xG5 . yf/f]uf0{j:t'/ afvfsf]nflu of]8fn] 3fF; :6n lkm8Ë -uf7df af6f] kfng_ sf]nflu /fdf]xG5 . a8hfsf]kftdf #)–#! k|tzt ;Vvf kbfy{!^=% k|tzt sRrf k|]6g, !=^^ k|tzt SofN;od /)=@& k|tzt km:kmf/; kf0{Psf]5 . o;sf]pkofu, k|;f/0f cflb vG"h:t}xG5 / gsf/fTds kIfdf of]8fn3fF; vfPsf];dodf afvfsf]cf6f aflx/ lg:sG5 eG"g]klg 5 .

pk;xf/

8fn3fF; kxf8L e|ub]v lelq dw{zdf c? xl/of] 3fF; gePsf];dodf puf|pg]kz{x?nf0{v'jfpg] ul/G5 . sRrf k|]6g / SofN;odsf]dfqf 8fn3fF;x?df /fdf]g}b]vG5 t/ 6offlgg, lnlUgg / cGo cNsfnf08x?n]ubf{hlt ePsf]k|]6g / SofN;od kz'n]lng kf0{fv}sf]xbg}. o;sf] lg/fs/0fsf]nflu Ps}sl;dsf]8fn3fF;dfq nfdf] ;do;Dd gv'jfPg, cfnf]kfnf]u/] k/fn / cGo 3fF;;Fu ldnfP/ v'jfpg]kz'j:t'sf]zfl//Ls tfn cg';f/ lbgel/sf]nflu rflxg]-# k|tzt ;Vvf kbfy{ v'/fs dWo Ps ltxf0{efu xl/of]3fF; / 8fn3fF; bO{ltxf0{efu k/fn cflb;Fu ld;fP/ v'jfpg]ugf{n]bW / df;'pTkfbg klg /fdf]xg] / sxL gsf/fTds tTj ePdf To;sf]c;/ klg gb]vg]xG5 .

*nv}s, kz'cfxf/f dxfzfvf, v'dn6f/ nlntk'/df jl/i7 j}flgs -P; $_ kbdf sfo{t xg'xG5 .

;Gbe{;fdfu|x?

Agriculture Project Service Centre (APROSC) 1991. Glosarry of some important palnts and animals name in Nepal, Ramsaha Path Kathandu Nepal.

Degen, A.A., M. Kam, S.B. Pandey, C.R. Upreti, S. El-Meccawi, and N.P. Osti (2010). In vitro gas production of leaves from fodder trees and shrubs from mid-hills of Nepal using cow, sheep and goat rumen liquor. Journal of Agricultural Science, Cambridge 148:445-451.

g]kfndf kf0{g]dWo dWo 8fn3fF;x? / ltgdf kf0{g]kli6s tTjx?, kz'cfxf/f dxfzfvf v'dn6f/ nlntk'/ g]kfn . kh|st d08n, d3/fh ltjf/L / j;Gt sdf/ >}7, s[ifsf nflu kz'cfxf/f ;+HG3 Jofjxfl/s hfgsf/L, kz'cfxf/f dxfzfvf v'dn6f/ nlntk'/ g]kfn .

Osti, N.P. 1995. Relationship among different nutrients available in the fodder trees leaves. Proceedings of the Second National Animal Science Convention, Aug. 7 - 9 1995 organized by Nepal Animal Science Association, Khumaltar, Nepal. pp-61-65

Osti, N.P., C.R. Upreti, N.P. Shrestha and S. B. Pandey 2006. Nutrients contents in fodder trees leaves, grasses and legumes from buffalo growing areas of Nepal. Proceedings 0f 5th Asian Buffalo Congress held from April 18-22, 2006, Naning China. pp 366-371.

Osti, N.P., P.B. Chapagain, M. R. Tiwari and C. R. Upreti 2007. Digestibility of Ficus roxburghii, Castanopsis indica and Ficus cunia on growing buffalo from Western Hills of Nepal. Italian J. Anim. Sci. 6 (Suupl.2):446-449.

Osti, N.P., S.B. Pandey and N. P. Joshi 1992. Chemical composition of different fodder tree species growing in Gorkha district of Nepal. B.Sc. Animal Science Internship Report Institute of Agriculture and Animal Science (IAAS), Tribhuvan University Rampur Nepal.

Panday, S.B., and N.P. Osti. 1993. Chemical composition of different fodder tree species. Proceedings of Regional Seminar on Fodder Trees and Leaf Litter, organized by Forest Research Division, Kathmandu, Nepal. Occasional Paper Vol. 1, 1993

Panday, S.B., and N.P. Osti. 1993. Chemical composition of six different fodder tree species. Nepalese Journal of Animal Science Vol. 9

Pandey, L.N., M.Kam, S.B. Pandey, C.R. Upreti, N.P.Osti, A.A. Degen 2009. Indigeneous knowledge of fodder tree selectivity by goats in the mid-hills of Nepal. Journal of Enterprising communities: People and places in the Global Economy, 3 (3): 241-255.

Subba, DB 2001. Chemical composition and nutritive values of feeds of east Nepal. Pakhribash Agricultural Centre, Dhankuta Nepal

æo; sf/0fn]cf]lgk5{s[if cg';Gwfg, k|;f/ / k7gkf7gnf0{Pp6}5ftfn]

✍ 8f= o'js Wjh hL=;L=*

h;/L a|XDff, lji0f' / dx]Zj/nf0{k[jLsf];[i6, ;+f/ / ;+fnssf]?kdf lrlgG5 To;/L g} s[if ljsf;sf];Gbe{df s[if cg';Gwfg k|;f/ / k7gkf7g ug]{;+yfx? d'WG{o lgsfosf]?kdf dflgG5g\. slxn]sfFL Pp6}z/L/df ePsf cËx? aLr klg ;+f]hgsf]cefjdf ynf kg{kg]{ cj:yf cfP h:t}l;Ëf]s[if ljsf;sf]nflu ;dflxt cjojx? aLr sfo{qmd th'df / ;+fngdf ;dGjofTds tfndh gePdf cfzfltt pknAwL lng g;lsg]:jefljs 5 . h;/L Pp6} z/L/df ePsf cfFvfn]gfs gb]Vg' / gfssf] sfg;Fu ;+f]hg gx'g' h:t}ePsf 5g\s[if lzIff k7gkf7g u/fpg]lgsfo / s[if cg';Gwfg / k|;f/ ug]{lgsfo . x'gklg of]b]zdf s:tf] k|sf/sf]bIf s[if lj1 pTkfbg u/]df g]kfnL df6f]/ kf6f];'xfpbF]s[if cg';Gwfg e0{cAan bhf{sf]k|jlw ljsf; / lj:tf/ x'G5 eGg]x}sf ;f];Fu ;Dj4 lgsfo aLr g t sfo{qmd th'df ubf,{g t ;+fng ubf,{g t glthf k|Kt kl5 ljZn]if0f ubf{g}x'g]u/]sf]kf0G{5 . of]l:ylt x'g'df bh{gf}sf/0fx? ePtf klg gLltut ?kdf s[if k7gkf7g u/fpg]lzIf0f ;+yfx? / s[if cg';Gwfg / k|;f/df ;+nUg lgsfox? 5§}5§} sfo{ut dGqfno cGtu{ /flvg,' sfo{qmd th'df ubf{s[fssf ;d:ofnf0{d'vl/t x'g]u/L ;Dafwg ug]{u/L ulx/f0{df cg';Gwfg gxg' / ljsl;t k|jlwx? g]kfnL s[fssf];fdflhs, cfly{s kl/j]z Pjd\le/fnf]kfvf]/ af/L d]qL gx'g' Psflt/ 5g\eg]csf]{ tkm{s[fssf]3/v]td} k'Ug]u/L / s[fsn]a‰g]u/L pkoQm ;dodf k|jlw x:tfGt/0f gx'g' h:tf ;d:of k|d'v ?kdf /x]sf 5g\. s[if b]zsf]cy{Gqsf] d]?b08sf]?kdf /x]sf] o;}Ifqaf6 clwsf+z hgtfsf]cfo:t/ psf:g];Defjgf /x]sf] cj:yfdf b]zdf s[if k7gkf7g ug]{;/sf/L :t/sf]lgsfo s]jn /fdk'/ lrtjg dfq x'g' / pSt ;+yf klg lzIff dGqfno cGtu{ /xL s[if ljsf; dGqfno;Fu ;fx}lemgf];Dks{df /xg]ljBdfg gLltut Joj:yfdf pTkflbt hgzlQmn]cf]krf/Ls k|s[tsf]l8uL xfl;n u/L ljsl;t b]zsf bIf hgzlQmdf bh{x'g' :jfefljs bl]vG5 . hasL lo lgsfox? Pp6} dGqfno cGt/ut /flvGYof]eg]g]kfnL s[fsn] efu]sf];d:of adf]hd kf7\oqmd ljsf; xbF] xf]/ yk}Jofjxfl/s sIff g]kfn s[if cg';Gwfg kl/ifbsf k|ofuzfnfdf k|ToIf ?kdf k|fljlws ljsf;df ;+nUg lj1x?af6};d]t x'g ;+ej lyof]. cem s[fssf]v]taf/L / kfvfnf0{x]/] k7gkf7g Pj+cg';Gwfg x'GYof]/ 5fgf]/ lbjf/n] 5]s]sf]sIffsf]7f dfq k|ofuzfnf ge0{s[fssf] hldg Jofjxfl/s sIff l;sf0{g]kf7zfnf x'g hfGYof].

jf:tjdf g]kfndf s[if ljsf;sf bh{gf}r'g'f}tL ePtf klg jt{dfg cj:yfdf plrt k|jlw gx'g,' s[if k]zf cfsk{ft gx'g,' Go'g ah]6 lalgof]hg x'g' Pj+sfdug]{lgsfo aLr ;+f]hg x'g g;Sg' g}k|d'v ?kdf /x]sf 5g\. x'gklg g]kfn hn>f]tsf]wgL /fi6«hxfFhn 5, hldg 5 / s[if pTkfbgsf]nflu k|s[tn]j/bfg lbPsf]5 t/ lj8Dagfsf]s'/f df5f ePsf]7fpFdf kfgL 5g}, kfgL ePsf]7fpFdf df5f 5g} eg]csf]{tkm{ hxfFa:t'sf]dfu 5 ToxfFpTkfbg 5g}, hxfF pTkfbg 5 Toxf ahf/ 5g} . oL / o:t} lj8Djgfaf6 g]kfnL s[if uh'g' k/]sf]5 . ckf/

;Defjgf /x]sf] s[if Joj:yfkg / r'gf}tLsf
ykf]n]lynlylnPsf]5 / lk/f]nPsf]5 . la8Dagf
t s[ifdf jt{dfg cj:yfdf alnof, afËf sfd
ug]{xft lbgfglbg o; k]zfaf6 ljt[Off km]nO{
a? c/asf tftf vf8Ldf hfg' >]bis/ 7fGg'
kSs]klg of]k]zf ;lhnf]/ dofl{bt gx'g':k:6
b]lvG5 . g]kfnL e'd ;'xfpF]s[ifdf oflGqs/Of
ug'{/ o; k]zfdf /dfO{bIf hgzlQmsf]a]8]g
x'g]cj:yf cfpg glbg' at{dfg ;dodf oIf
k]Zgsf]?kdf /x]sf 5g\. oL r'gf}tLnfO{xn
ug{g]kfndf s[if cg';Gwfg ug]{lgsfon]
lg/Gt/ s[fs ;dbfo / ;]f k|bfos lgsfo;F
;Djfb u/L canDag ug{;lsg}glthf lgsfNg'
cfjZos 5 eg]To; k|sf/sf]Jojxf/Ls
ljifoj:t' k7g kf7g ug]{lgsfon];d]6g'
plQs}cfjZos 5 t/ To;f]ePsf]geO{ePsf]
s]5 eg]ljsl;t b]zdf lgof{ x'g]vfnsf]
zl]Ifs hgzlQmsf]pTkfbg . o:tf]x'gdf :jo+
JolQmsf]sdhf]L eGbfklg /fi6«lgdf{fsf]nflu
pkoQm jftfj/Of, t'ngfTds cj;/x?sf]sdL
/ Jojxf/Ls lzIffsf]sdL h:tf kIf lhDd]f/
/x]sf 5g\.
g]kfnaf6 ljb]zg]hdft s]n cw{bIf dfq
geO{bIf hgzlQm klg cAan ;'+ofdf /x]sf]
jt{dfg cj:yfdf /fi6«lgdf{fx?n]Ps k6s
lgwf/ vDRofP/};f]rL tt\;DalGwt of]hgf
Nofpg l9nf ePsf]5g . an / afx'df cf>Lt
k/Dk/fut s[if k|Offn]nfO{g]kfnL ux[, sfGnf,]
le/ / kfvf]x]L ;/nLs[t ?kdf cg';Gwfg u/L
;f]cg';f/ pknAw u/fOg];+Gqsf]5ftfd'gL
oL tLg}b]jtfnfO{Nofpg' cfjZos 5 . hasL
s[fssf]efjgf / ;d:of;F 6'sL afn] ;dbfodf
a:g]k|fljlwsx? cg';Gwfg / k7gkf7g ug]{
lj1;F ;fIffTsf/ eO{;f]cg?k ljsl;t
ul/Psf]glthf s[fsn]cf^gf];fdflhs, cfly{s
/ k|fljlws kl/j]z d'tfljs k|bfu]df Nofpg]
jftfj/Ofsf}cfjZos 5 . ljsl;t b]zdf
ul/Psf]k|jlw g]kfnL df6f] xfjfkfgL, afnL /
s[fssf];dflhs, cfly{s / k|fljlws kl/j]zdf
d]n gvfg':jefljs 5 . h:tf]g]kfnsf]df6f]df
/f;folgs dn slt xfNg] To:t}/fu / sL/f
lj?4 s'g / slt /f;folgs ljiffbL k|bfu ug]{
eGg]k]Zgsf]pQ/ cd]/sf jf s'g}ljsl;t
b]zdf ul/Psf]glthfaf6 l;kmfl/z ul/g]k/Dk/f
b'ef{ok'Of{g}dfGg' kg]{x'G5 . o;sf]pQ/ s'g}
JolQmn]slt vfgf vfg]eGg]h:tf k]Zg;F
hf]8Psf]5 hasL o;sf]l;wf pQ/ k]6n]
vf]h]hlt vfg]xf]To:t}df6f]df klg vf]h]hlt
dn xfNg g;Sg]kl/l:ylt cfpgfn]cfhsn
uxFfnL g]kfnsf k|foM :yfgaf6 nf]k eO{s]sf]
5 . To:t}/f;folgs ljiffbLnfO{cfi]flw elg
Jojxf/ ubf{cfhsn afnLdf /fu, sL/fsf]
eofjx x'g'/ ;du| s[ifdf gofFr'gf}tL ylk'g'
h:tf ;d:ofx? cfPsf 5g\. g]kfn ljZjJofkf/
;3+sf];b:o /fi6«f]xl};otn]b]zn]w]/}ztx{?
k'/f ug'{kg]{/ ;b:o /fi6«jfkt cj;/sf]
clwsflws pkofu ug]{kg]{cj:yfdf To; cg?k
a9L ;]a9L lgof{ k]j4g / cfot k|t:yfkgdf
;3fp k'/fpg]vfn]cWoog, cg';Gwfg / k|;f/
ug'{kg]{b]lvG5 . h;sf nflu k|bfu]zfnfsf]
:t/ ;'wfg'{kg]{/ ;]fu|xLsf]dfu adf]hd
;]f k|afx x'gkg]{cfjZostf 5 . 7'nf]s'/f t
v'dN6f/df ljsl;t s[if k|jlw l9nf gu/L
xl/x/ejgdf cfpg'kg]{/ xl/x/ejgaf6 tft\tft}
s[fssf 3/v]tdf k'Ug];+Gqdf slF sldsdhf]L
/ ;'wfg'{kg]{ePdf xfdL s[ifsldn{]g};f]gkg]{
a]nf cfPsf]5 . To:t}s[if cWoog ;+yfgx?df
ul/Psf xhf/f]cg';Gwfg zf]wsfox{? k|;f/ eO{
s'ifssf 3/ v]tdf cfpg' kg]df cfh b/fhdf
ylGsg' klg b'ef{osf]ljifo ag]sf]5 . oL /
o:t}ljifosf];dfwfg sfd ug]{lgsfo Pp6}
5ftfd'gL eO{k|jlw Pjd\hgzlQm ljsf; /
;]f k|jfx x'g cfjZos b]lvG5 .

:yfgLo >f]t s[fs sf]klxrfg, ljsf; tyf kl/rfng

✍ j}s07 clwsf/L*

s[if k|;f/ ;]f k|jfxdf :yfgLo cu'jf s[fsx?sf] kl/rfng ug{cEof; ljutb]lv g}xF}cfPsf] xf]. sd ljsl;t d'n'sx?df s[if k|;f/ ;]f k|bfos lgsfon];Lldt >f]t ;fwgsf sf/0f kofK{t dfqfdf k|fljlws kl/rfng ug{g;Sg] / s[fsx?n] klg cfkm\gf] ufpFl5d]s sf JolQmx?nfO{a9L ljZjf; ug{ePsfn] s[if k|;f/ ;]fsf]kxF j[4 ug{l56f]/ lbuf]?kdf pGgt k|jlw ckgfpg]k|qmofdf ;xhLs/0f ug{cu'jf s[fs sf]pkofu jf kl/rfng a9L k|efjsf/L dflgG5 . g]kfndf xfn / ljutdf ;d]t ljleGg lsl;dsf s[if k|;f/ k4lt cGt/ut s[if k|jlw k|;f/ ug{sfo{df :yfgLo cu'jfx?sf]kl/rfng u/]sf]kfOG5 . oxfFd'n'tM :yfgLo >f]t s[fs kl/rfng ;DaGwL clxn]Dd k|bfudf cfPsf s]xL pbfx/0fx? / cfufdL lbgdf ug{;lsg]pkfox?sf]af/]df 5f6s/Ldf rrf{ug{k|bf; ul/Psf]5 .

!= xfn;Ddsf k|bf;x?

tflnd tyf e6]3f6 k4ltM o; k4ltdf :yfgLo lgsfo -ufpFt/_ af6 s[if ;xfos lgoQm u/L pgLx?nfO{k|fljlws ;xfos÷;xfos k|fljlws ;xfos (JT/JTA) ;Fu} s[if ;]jf s[]b|÷pk–s[]b:t/df kflIfs ?kdf ljifo ljzi]f1af6 tflnd lbO{;DalGwt uf=lj=;=sf k|To]s jf8{df /x]sf ;Dks{s[fsx?nfO{ s[if ;DaGwL k|fljlws ;]f k|bfg ug{sfo{df kl/rfng ul/GYof]. s[if ;xfosx?n];Dks{s[fs sf ;d:ofx? ;+sng u/L cfufdL tflnddf lj1;Fu 5nkmn u/]/ ;dfwfgsf pkfo ;lxt csf{ e6]3f6sf]qmddf s[fsx?nfO{hfgsf/L u/fpFby] . sd kfl/>ldssf sf/0f s[if ;xfosx?nfO{ sfddf pTk]l/t ug{;lsPg / cfof]hgfsf] ;dfKtL;Fu}of]sfon{]lg/Gt/tf kfpg ;sg] .

6'sL k4ltM ;g\!(&& df ;3g kxf8L Ifq ljsf; cfof]hgf (IHDP) cGt/ut l;GwkfNrf]s / bfnvf lhNnfdf ;+flnt 6'sL k4ltn]:yfgLo cu'jf s[fsnfO{s[if k|;f/ ;]f ;+fng ug{ k|bfu u/]sf]lyof]. 6'sL eGgfn]ufpFdf s[if / ljsf;sf]nx/ km]afpg]Pp6f ;lqmo, hfFnl/nf] / tflnd k|fKt sfo{stf{xf]h;n]alQn]jl/kl/ pHofnf]km]}ofPsf]h:t}cfkm'n]hfg]sf]1fg, ;Lk 5/l5d]s tyf ufpFsf s[fsx?nfO{k|;f/ ug{sfo{ub5 . 6'sLn]cfkm\gf];Dks{df /x]sf s[fsx?nfO{s[if ;fdfu|L ljt/0f ubf{kfpg] sldzg / 9'jfgL jfktsf]/sd kfl/>lds jf k|f];fxgsf]?kdf k|fKt uby{].

ls;fg–ls;fg k|;f/ k4ltM :jL; ;/sf/sf];xofu]df ;g\!(((b]lv ;+flnt lbuf] e"–Joj:yfkg sfo{qmdn]cfkm\gf]sfo{Ifq]sf lhNnfx?df ljleGg afnL jf k|jlw ljzi]fsf cg'ejL cu'jf s[fsx? 5gf6 u/L pgLx?;Fu ePsf]1fg, ;Lk / cg'ejsf] ljifodf yk 1fg, ;Lk / tflnd ;+fng ;DaGwL cfwf/e"t tflnd lbg]u/]sf5 . tflnd k|fKt cg'ejL cu'jf s[fsx?n];]f dfu ug{s[fs ;d"x:fFu ;Demf}f u/L ;d"x ;b:ox?nfO{pgLx?sf]dfu / cfjZostfdf cfwfl/t tflnd lbG5g\. :yfgLo lgsfosf];+UgtfnfO{;lglZrt ug{j8f cWoIf jf uflj; pkfWoIf jf cWoIf dWo]Ps ;fIfLsf] ?kdf /xg]k|fjwfg 5 . o;sf nflu ;xhLs/0f ug{lhNnf s[if ljsf; sfof{nosf jl/i7 s[if ljsf; clws[tsf];+of]hsTjdf Ps ;ldlt / :yfgLo:t/df ;xofu]L ;+yfsf]?kdf sfo{t u};jf ;d'bfodf cfwfl/t ;+yf /x]sf xG5g\.

;dbfo Jojl:yt l;+rt s[if Ifq cfof]hgf **(CMIASP):** Plzofnl ljsf; j}sf]C0f ;xof]udf k"jf{rn / dWodf~rn ljsf; Ifqsf ;a}#% lhNnfdf lj=;=+@)^$;fnaf6 ^ jif{sf nflu ;+flnt o; cfof]hgf cGt/utsf l;+f0 pk–cfof]hgfsf s[fsx? dWo]af6 Joj;flos ?kdf v]tL ul//x]sf / OR5's >f]t s[fsx?nf0{ 5gf6 u/L pgLx?nf0{s[if ;DaGwL cfwf/e"t ljifox?, s[if ;DaGwL lgsfox?;Fsf];dGjo, ;d"x kl/rfng / tflnd ;+fng ;DaGwL ljifodf k|zIfs k|zIf0f tflnd lb0P[sf]5 . lhNnf s[if ljsf; sfof{no, l;+f0 sfof{no / ;DalGwt hn pkef0Qmf ;+yfsf];xof]u / ;dGjodf l;+f0 pk–cfof]hgfsf]sdf08 Ifq leqsf s[fsx?nf0{s[if k|;f/ ;]f k|bfg ug{ u/L h=p=;=+>f]t s[fs kl/rfng ePsf]5 .

lhNnf s[if ljsf; sfof{no, hDnfsf]k|bf;M lj=;=+@)^% ;fndf :yfgLo s[if >f]t JolQm pTkfbg, Joj:yfkg Pj+kl/rfng sfo{of]hgf tof/ u/L lh=s[lj=sf=, hDnfn]Joal:yt 9u+af6 :yfgLo >f]t s[fssf]kl/rfng ug{k|bf; u/]sf]b]lvG5 . lhNnfsf ;a}uf=lj=;=sf]k|To]s j8faf6 !÷! hgf >f]t s[fssf]5gf6 u/L pgLx?nf0{s[if Joj;foLs/0f ;Lkd"ns k|jlw tflnd / Ifdtf clej[4 sfo{qmd cGt/ut afnL tyf k|jlw ljzi]fsf ljleGg ljifodf yk tflnd lbg]sfo{qmd /x]sf]5 . tflnd k|fKt >f]t s[fsx?nf0{s[if ;DaGwL cfwf/e"t pks/0fx? ;lxt ;DalGwt j8fsf s[fsx?nf0{ s[if k|;f/ ;]f k¥ofpg kl/rfng ug{nIo /x]sf]5 . lh=lj=;=, uf=lj=;=, lhNnfdf lqmofzLn u=};=;= / lh=s[lj=sf= aLr ax"fLo ;Demf}f u/L of]sfo{qmd ;+fng ePsf]5 . cfjZos cfly{s >f]t Joj:yfkgdf ;a} lgsfox?af6 of]ubfg x'g]u/L sfo{qmd to ePsf]5 .

@= gLltut Joj:yf s[if ljsf; dGqfnon]lhNnf:t/df ;+flnt s[if Pj+kz' ;]f k|;f/ sfo{qmd cGt/ut tflnd sfo{qmd ljzi]f u/L ;]f s[b:t/Lo tflnddf cg'ejL :yfgLo s[fsnf0{>f]t JolQm -k|zIfs_ sf]?kdf pkof]u ug{gLlt g}lnPsf] 5 . g]kfn s[if k|;f/ /0fgLlt, @)^# sf]!! j6f /0fgLlts ;+rgf dWo]Pp6f /0fgLlt æ:yfgLo >f]t JolQmsf]pkof]u / ljsf;Æ /x]sf]5 h;df bIf Pj+cg'eJfL / cu|0fL s[fs÷u|dL0f >f]t JolQmx?sf]nut cBfjlws ug{ pgLx?sf]Ifdtf ljsf; ug{/ lglZrt ;d"xsf]nflu ;]f k|bfos ljzi]f1sf]?kdf kl/rfng ug{eGg]pNn]v 5 .

s[if k|;f/sf s]xL k|bf;x?df / gLltut Joa:yfsf afjhb :yfgLo >f]t s[fssf]klxrfg, ljsf; / pkof]u sd dfq}x'g ;s]sf]5 / o;nf0{lj:tf/ u/L Jofks / k|efjsf/L agfpg ;lsPsf]5}g . ;]f k|bfossf]kIfaf6 x]bf{ ;fj{hlgs s[if k|;f/ ;]fsf]kxF cem}klg !@–!% k|tzt s[fs dfem dfq k"Ug ;s]sf] / s[if ;]f s[b|sf];¥of ljutdf eGbf sdL ePsf]cj:yf 5 eg];]fu|fxLsf]kIfaf6 x]bf{ s[fssf]dfu / rfxgf a9]sf]/ ljleGg afnL ljzi]fsf Joa;flos / cg'ejL bIf s[fsx? klg ljutdf eGbf w]/};¥ofdf pknAw 5g\. o;af6 >f]t s[fs kl/rfng ug"{kg{cfjZostf / ;+efjgf k|:6}b]lvG5 .

#= :yfgLo >f]t s[fssf]klxrfg ;fj{hlgs s[if k|;f/ ;]f k|bfos lgsfox?n] k/Dk/fut k4ltb]lv g}:yfgLo cu"jf s[fsx?sf] k|bf]u ub{cfPsf x'g\. lkmN8:t/sf k|fljlwsx?n] ufpFsf cu"jf, k|ultzLn Pj+;xof]uL s[fsx? klxrfg u/L pgLx?sf];dGjo / ;xof]udf s[if k|;f/ sfo{qmd ;+fng ug{u/]sf] kf0G{5 .

To:t}u=};=;=x?n];fdflhs kl/rfns dfkm{ of]cEof; ug]{u/]sf]bl]vG5 . ljutdf :yfgLo >f]t s[fs jf cu'jf s[fs sf]?kdf sfo{u/]sf jf xfn klg sfo{/t >f]t JolQmx? h:tM} s[if ;xfos, 6'sL, ufld0f s[if ljsf; sfo{s tf,{ ufld0f kz':jf:Yo sfo{s tf,{u=};=;=sf ;fdflhs kl/rfnsx?, afnL ljzi]fsf Joj;flos s[fsx?, lbuf]e"Joj:yfkg sfo{qmd cGt/utsf cg'ejL cu'jf s[fsx?, Plss[t zq' hLj Joa:yfkg s[fs k|zIfsx? / s[if ;DaGwL 1fg, ;Lk ePsf OR{5's s[fsx?nfO{:yfgLo >f]t s[fs sf] ?kdf ljsf; u/L kl/rfng ug{;lsG5 . >f]t JolQm 5gf6} ubf{s[if ;DaGwL 1fg, ;Lk / cg'ej ePsf,] Joj;flos ?kdf pGgt k|jlw ckgfO{v]tL ul/x]sf]jf ug{OR{5's, s[fs ;dbfoaf6 ?rfOR{sf]JolQm / cfkm}klg >f]t s[fs sf]?kdf sfo{ug{OR{5's Pj+cfTdfljZjf;L, pT;flxt / g]t[j lng ;Ifd x'g' kb5 . dfly pNnl]vt ;a}>f]t s[fsx? ;a}:yfgdf pknAw gx'g ;S5g\/ ;a}sf]Ps;fy kl/rfng ug{cfjZos klg xbFg . oL dWo]s'g}Ps :yfgLo txdf pknAw x'G5g\g}. s'g}:yfgdf ufld0f s[if ljsf; sfo{s tf{tflnd lnPsf] JolQm x'g ;S5g\eg]st}Joj;flos s[fs t st}>f]t JolQmsf]?kdf sfo{ug{OR{5's cu'jf s[fs x'g ;S5g\. xfdLn]oL dWo]g}klxrfg u/L pgLx?sf]Ifdtf ljsf; u/]/ kl/rfng ugk{b5 .

$= :yfgLo >f]t s[fs sf]ljsf; / kl/rfng ;]jf k|bfos ;+yfsf]KfIfaf6 dfq geP/ ;]jf dfu÷k|fKt ug]{s[fs ;dx÷;xsf/L, hn pkefQmf ;+yfx?n];d]t cfkm\g}kxn / cfly{s >f]tdf klxrfg ePsf :yfgLo >f]t JolQmx?sf] ljsf; u/L pkofu] / kl/rfng ug{;S5g\. cg'ejL, Joj;flos, bIf, s[if Joa:ffodf lg/Gt/ /xg]/ o; sfo{df OR{5's s[fs 5gf6} u/L s[if k|jlw / k|;f/ ;]jf ;DaGwL cfwf/e"t tflnd lbP/ cfkm\gf];dx÷;xsf/L jf ;+yfsf cGo s[fsx?nfO{;]jf k|bfg ug{kl/rfng ug{ ;lsg]bl]vG5 . >f]t s[fs sf];]jfnfO{lg/Gt/tf lbg tyf cfjZos k/]sf];dodf pknAw x'g] agfpg pgLx?nfO{kfl/>lds jf kf]];fxgsf] Joa:yf ugk{g]{x'G5 . kfl/>lds jf kf]];fxgsf] nflu dfl]b|s / u/} dfl]b|s b'a}pkfox? canDag ug{;lsG5 . tflnd, ufi]7L, e|d0fdf ;xefuL u/fpg,] k|bzg{ sfo{qmd pgLx?sf]v]t af/Ldf ;+rfng ug,]{>f]t s[fs dfkm{ ;dx÷sf nflu ;fdlxs ?kdf s[if ;fdfu|L vl/b / s[if pkhx?sf];fdlxs ahf/Ls/0f u/L To;af6 s]xL /sd 56\of0 pgLx?nfO{kf]];fxgsf]?kdf lbg ;lsG5 . ;]jfsf]cfjZostf / cfl}rTo x]/L ;dx÷ jf ;+yfsf]sfi]faf6 s]xL /sd Joa:yf ug{;lsG5 . yk cfly{s >f]t h'6fpg :yfgLo u}};, lh=lj=;=, uf=lj=;=sf];xofu] lng ;lsG5 . kf|jlws ;xofu] lhNnf s[if ljsf; sfofn{o, lhNnf kz' ;]jf sfofn{oaf6 lng' kb5 . lghL Ifdqsf ;]jf k|bfos ;+yfx? h:t} Pufl]e6, g;/{L wgL, s[if pks/0f ljqm]tfx?n] klg lglZrt kfl/>lds / kf]];fxg lbP/ cfkm\gf] ;fdfu|L jf ;]jfsf]ljt/0fsf]nflu :yfgLo >f]t s[fs sf]pkofu] ug{;S5g\.

o;/L s[if k|;f/ ;]jf k|bfos lgsfo -;fjk{lgs, lghL jf Uf=};=;=_, :yfgLo lgsfo -lh=lj=;=, uf=lj=;=_ / ;]jfufxL ;+yf -s[s ;dx÷;xsf/L jf hn pkefQmf :f+yf_ aLrsf];xsfo{df :yfgLo >f]t s[fs sf]kl/rfng ug{;lsg] bl]vG5 . cfd s[fs ;dbfodf k|efjsf/L s[if k|;f/ ;]jf k|jfx ug{:yfgLo >f]t s[fsn] tkl;ndf pNNfl]vt sfo{ug'{kg]{x'G5 .

★ s[if k|;f/ ;]jf k|bfos ;/sf/L tyf u/} ;/sf/L ;+yfx?sf]ljj/0f tof/ ug]{/ tL lgsfox?df cfjZostf cg';f/ ;Dks{u/L ;xofu] lng].

- s[if pTkfbg ;fdfu| kfKt ug{;lsg]:yfg ->f]t s[Jb| Pu[e]6, >f]t aLp, a]gf,{lj?jf, df5fe'/f_ x?sf]ljj/0f tof/ ug]{s[fsx?nf0{ hfgsf/L u/fpg].
- ljleGg s[if pkhx?sf]ljlqm ljt/0f ug{ ;lsg] s[if ahf/x?sf] hfgsf/L ;+sng tyf s[fsx? dfem k|rf/ k|;f/ ug]{.
- ljleGg sfo{qmd / >f]t af6 cfkm\gf]sfo{fqdf lelqPsf tyf ;f]Ifqdf klxnfb]v g}ePsf

afnL, hftx?sf]gfd / tL hftx?sf]ljzi]ftfsf] ljj/0f tof/ ug]{.

- cfkm\gf] sfo{fqsf] afnL k0ffnL, afnL ;3gtf / ljleGg afnLsf]pTkfbsTjsf] ljj/0f s[if kfljlwssf];xofu]df cBfjlws u/L /fVg].
- ;]jf k|bfos lgsfoaf6 cfkm\gf] Ifqdf ;+fng x'g] sfo{qmdsf]af/]df hfgsf/L ln0{sfo{qmd ;+fngdf cfjZos ;xofu] tyf ;dGjo ug]{.
- ;]jf k|bfos lgsfoaf6 cfkm\gf] Ifqdf ;+fng x'g] s[fs tflnddf k|zIfssf] ?kdf ;xefuL x'g].
- s[if k|;f/ zl]Ifs ;fdfu|x? h:t}kl:tsf, af]:/, kfi]6/ cflb ;+sng tyf ;f]sf] cWoogsf]Joj:yf ldnfpg].
- s[fs ;d'xsf]j7sdf s[if k|jlwsf]ljifodf 5nkmn / cg'ej cfbfg k|bfg ug]{kl/kf6Lsf] ljsf; ug{s[fs ;d'xnf0{pTk]/t ug]{.
- afnL gfnLdf b]vf kg]{/fu] sL/f nufotsf ljleGg ;d:ofsf]af/]df ;DalGwt kfljlws ;dIf l/kf]6Ë u/L ;d:of ;dfwfgsf] Joj:yf ldnfpg].

*n]vs, s[if ;'rgf tyf ;+f/ s[Jb|df jl/i7 s[if ;+f/ clws[t kbdf sfo{t x'g'xG5 .

bŵdf xŀg ;Sg] sf]lnkmd{af/]hfgsf/L

✍ kl/df]b sf0f/fnf*
✍ kj|0fsdf/ ltjf/L*

sf]lnkmd{s]xf]<
sf]lnkmd{Ps k|sf/sf];Id lhjf0f'xf]. sf]lnkmd{ df6f]xfjf, uf7, 3f]Fkft / kmfx/dnf ef8faf6 ;g]lhjf0f'xf]. t;y{sf]lnkmd{gfds ;Id lhjf0f'sf]pkl:ylt nf0{;/;kmf0sf];'rs (Hygiene Indicator) sf]¿kdf ln0G5 . sf]lnkmd{ ;dŵdf /x]sf clwsf+; ;Id lhjf0f'xflgsf/s xb\g / o; ;dŵleqsf vf; lhjf0f'dfq lb;f lk;faaf6 ;qmldt ePsf]xG5 . o:tf sf]lnkmd{ lhjf0fnf0{lkmsn sf]lnkmd{(Faecal Coliform) elgG5 . o;sf]j}flgs gfd *E. Coli.* xf].

k|zf]wt bŵdf kf0g]w/]h;f]sf]lnkmd{gglkmsn sf]lnkmd{xŀg\ hŀg k|zfŵgsf avtdf tyf k|zfŵg kZrft kfgL, Kofs]hª, sdhf/] ;/;kmf0 cflbsf sf/0f kŀgŵ ;qmd0f ePsf/ cfpb\g\. bŵdf xŀg] sf]lnkmd{gi6 ug{bŵ k|zfŵg pBf]ldf kf:r'/f0h}g k|qmof ckgf0G5 . o:tf] k|qmof canDag ubf{bŵnf0{sDtLdf ^# l8ul| ;]G6u8 tfkqmddf #) ldgG6 ttfPkl5 % l8ul| ;]G6u8df lr;f]kfl/G5 . o; k|qmofdf bŵdf xŀg;Sg] ;Dk0f{xflgsf/s lhjf0fx¿ gi6 xG5g\. kf:r'/f0h}g ul/Psf]bŵdf sf]lnkmd{ xb\g .

sf]lnkmd{sf]dfkb08
cd]l/sf / ef/tsf];Gbe{df k|zfŵwt bŵdf sf]lnkmd{u0fgf !) k|t ldlnln6/ bŵ 5 eg] o'/fkdf of]u0fgf % k|t ldlnln6/ lgwf{0f ePsf]5 . gkfndf vfB Pgg, @)@# n]u/sf] Joj:yf adf]lhd k|t ldlnln6/ bŵdf sf]lnkmd{ u0fgf z'Go xŀgkg]{/ o;sf]pkl:ylt b]lvP bŵnf0{bl/ift / :jf:Yosf nflu xflgsf/s dflgg]pNnfv 5 .

bŵdf sf]lnkmd{xŀg glbg ckgfpgkg]{;fjwfgL

ls;fgsf]bfloTj
!= bŵ bŵxŀg' cufj}ef8fsb8f /fdf]}Fr ;kmf ug]{.
@= lg/fŵL JolQmåf/f bŵ bŵxŀg]/ bŵ bŵxb\f JolQmut ;/;kmf0df Wofg lbg].
#= bŵ bŵxb\f bŵ lbg]uf0{/ eP\sf]yŀg /fdf]}Fr kvfNg].
$= bŵ blx;sk|l5 l56}rlnª ;]6/ jf 8]Ldf k¥ofpg].

pBf]ŵLsf]bfloTj
!= bŵ e08f/0f ug'{cufl8 / kl5 6\ofÍ, kf0knf0g, Kof:r'/f0h/, tyf 0gnf0g d]lzgx¿ klg !=% k|tzt sfli6s ;f8fsf]emfjh, ! k|tzt gf0l6s Pl;8sf]emfjhaf6 qmdzM l;=cf0{k= (Clean in Place) u/L tftf]kfgLn] /fdf]}Fr ;kmf ug]{.

@= bŵnf0{&^—&* l8ul| ;]G6u8 tfkqmddf !% ;}]8 ttfPkl5 % l8ul| ;]G6u8df lr;f] kf/L lg/fŵg k|qmof (Pasteurization) ug]{.

#= Kofs]hª Knfli6s /fhnf0{sf]8ª d]lzgdf lkm6 ug'{cufl8 sf]8ª d]lzg Snfl/gn] wf]P/dfq date sf]8ª sfo{ug]{/ lk|ofs d]lzgdf h8fg UV Light bŵ e?Ghjh afln/fVg] / d]lzgsf]vfkf clgjfo{kdf a'Gb /fVg].

$= ;/;kmf0df kpfŵu xŀg]kfgL clgjfo{kdf UV Treatment ug]{/ ;fy}bŵdf kpfŵu xŀg] kfgL kf:r'/f0h}g ug]{.

%= k[To]s 6\ofÍLsf]bw lkmlnª ug'{cufl8 ljleGg k/LIf0f clgjfo{;kdf ug]{
-s_ 3[tfz / 7f]; kbfy{k/LIf0f .
-v_ Pl;l86L k/LIf0f .
-u_ l;=cf=lj= k/LIf0f .
-£f_ df0sf]jfonf]hL k/LIf0f .
-ª_ kmf]kmf6]h k/LIf0f .

^= ;do ;dodf kf0knf0g, eNj, 6\ofÍL, lkmln8 dl]zg, sfl]8ª dl]zgsf]:jfa (Swab Test) 6]6 ug]{.

&= pBfu]df sfo{t ;a}sf]:jf:Yo / ;/;kmf0df Wofg lbg].

*= pBfu]af6 ahf/ k7fpbf % l8uL ;]G6u]8sf] tfkqmd sfod u/]/dfq k7fpg] .

bw laqm]tfsf]bfloTj

- lr;fdf e08f/0f u/L bw laqmL ljt/0f ug]{
- k;ndf kofK{t ;/;kmf0df Wofg lbg].
- pBfu]L;Dd s[fsn]bw k¥ofpbf klg kofK{t Wofg lbg]kg]{xG5 .

pkef0Qmfsf]bfloTj

- kofK{t ;/;kmf0oQm bw 8]/L, k;naf6 dfq bw lsGg].
- pkef]o ldlt ;dfKt gePsf bwdfq lsGg].
- bw pdfn]/ pkefu ug]{.

*nlys, vfB k|jlw tyf u0f lgoGq0f ljefudf jl/i7 vfB cg';Gwfg clws[t kbdf sfo{t x'g'xG5 .
**nlys, vfB k|jlw tyf u0f lgoGq0f ljefudf kf|jlws ;xfos kbdf sfo{t x'g'xG5 .

t/sf/L g;{Lsf kmf0bfx?

– ;u'g zdf{kl08t

- g;{Ldf a]gf{tof/ ubf{u0f:t/Lo a]gf{pTkfbg ug{;lsG5 .
- ;?sf]cj:yfdf la?jfnf0{ljzjf x]/rfxsf]cfjZos x'g]xbf ljleGf vfn]cK7]/f]kl/l:ylt -h:tW}3fd, kfgL, hgfj/, emf/kft_ af6 hfu]fpg ;lsG5 .
- l;w}v]:÷af/Ldf lap 5bf{eGbf g;{L agfP/ a]gf{pTkfbg ubf{cdNo aLp v]/ hfgaf6 arfpg ;lsG5 .
- o;/L a]gf{pTkfbg ubf{eljiodf /fdf]pTkfbg lbg]vfnsf, /fu sL/faf6 dQm a]gf{dfq :yfoL :yfgdf nu]/ ;fg{;lsG5 .
- l;Ff0, emf/kft Joj:yfkg ;lhn}Fu ug{;lsG5 .
- yf]/};dod}pTkfbg lng ;lsG5 .

;x/sf]5t / sfŽLdf v]tL

✍ ;Gtfjf clwsf/L*

3/sf]5t / sfŽL ;aeGbf /dfO{nf]:yfgsf]?kdf lnOG5 hxfF 3/sf afx]s u} ;b:ox?sf]kxF sd xG5 . 5t / sfŽLdf ljleGg ;Dngfds sfdx? klg ug{;lsg]kz:t ;Defjgfx? ePklg xfn;Dd o;sf]e/k/ ;bkofju ul/Psf]kfO{g . 5t / sfŽLdf a;] l5d]s tyf j/k/sf]b[osf]cfgGb lng tyf dg axnfpg ;lsG5 . ;fy,} xl/ofnL sfod ub}/ËL lj/ËL k|n, t/sf/L, k|nk|nsf la?jfx? nufO{au+f :yfkgf ubf{3/sf]zfef klg a9\5 . zx/df 5t / sfŽL xl/ofnL agfpg ;Sg' eg]sf];fdflhs k|ti7f klg a9fpg' xf]. zx/Ls/0fsf]ljsf; ;Fu} v]tL ofqfo hUuf / vhf 7fpF Ifdtf k|n 36\ uO{x]sf];Gbe{df zx/af;Lx?n] ca 5t / sfŽL v]tL k|jlwsf af/]df ;fdfg' kg]{ a]nf ePsf]5 . oBlk, o; ;DaGwL kof{Kt 1fg / o;sf k|fOnf, v]tLsf]nflu ;]jf tyf ;ljwf, v]tLsf]nflu cfjZos l;Ffl0fsf]nflu kfgLsf] Joj:yf gxF tyf 5t / sfŽLdf v]tL ubf{5t lau|G5 eGg]cfd dfGotfsf]sf/0faf6 klg o:tf] v]tLdf cfd zx/jf;Lx? vf;} pT;'s b]lvbg\g\.

ljZj O{txf;nfO{sfnfpg]xf]eg]d}ifkf6fldof ;Eotf -O{zfk"j{^)) aif{eGbf cl3_ b]lv g} hldgdfly ?v tyf e|f8Lx? nufpg]u/]sf]ljleGg n]vx?df kfO{G5 . g]kfndf sfŽL tyf 3/sf ljleGg :yfgdf th;L nufot cGo k|n'x?sf af6 la?jf nufpg]k|rng w]/}k"/fgf]xf]. zx/sf clwsf+z 3/x?sf]sfŽLdf udnf tyf s6g/df ljleGg lsl;dsf ;ulGwt / /u|Lru|L k|n'x? nufPsf]b]lg ;lsG5 . th;L, uhfa, ufpFfj/L, augeL, ;okqL, h/a]/f, h]/flgod, nfnkft,] nfx"/]k|n, ;bfaxf/ cflb ;a}n]dg k/fpg]k|n'x? xg\. k|'fcfhfdf klg oL k|n'x? l6kL/xg ldNg]/ k|foM ;a}k|'fdf logLx?sf]kpfju xG5 .

s[ifdf cfd dflg;sf]cfsif{f 3l6/x]sf]a]nf s[fssf];Vof klg 36\g uO{ljz]ful/ zx/L Ifdtf vfBj:t' pTkfbgsf]lx;fan]vfB c;'/Iffsf] ;d:of 5 . zx/af;Lx?sf]nflu cfjZos kg]{ vfBfGg, k|nk|n tyf t/sf/Lx? cGo lhNnfx?af6 cfkl't {ul/g]ePsf]xF pgLx? v]tLtk|{vf;}rfv b]lvPsf 5\gg\. zx/L Ifdtf]nflu cGo lhNnfaf6 jf nfdf]b"/L kf/ u/fP/ t/sf/L / s[if hGo pkhx? Nofpg' kg]{ePsf]h]tL tfhf / :j:y xF\gg\. ce|}tL pkhx? glaluPbf}\egL cfo' nDAofpg / /dfl]b]lvfpg ljleGg lsl;dsf ljiffbLsf] kpfju ubf{o;n]dfgj :jf:Yodf ;fe|}gsf/fTds c;/ kfg]{s"/fdf clwsf+z zx/af;L ;r]{ 5\gg\.

zx/sf]5t / sfŽLdf pTkfbg ul/g]s[if pkhn] s\g}klg kl/jf/nfO{vfB pTkfbgdf cfTd lge{ agfpg ;lsG5 eGg]sbflk xfdg . t/ o;sf] dfWodaf6 kl/jf/:t/df ;DalGwt JolQmsf]kfb6s, ;"/Ift / kof{Kt vfgf vfg kfpg' kg]{dflg;sf] cfwf/e"t clwsf/ k"/f ug{eg];3fp k¥ofpF . o;/L v]tL ubf{zx/af;Ln]cf^gf]nflu cfk|mn] pTkfbg ug{l;sfpF . ef}sd/L / ul/aL 36fpg] nIo lng]xf]eg]rflx j[kb /fli6ö gLltsf] cfjZostf kb5 .

sfŽL / 5tdf v]tL ug'{eGbf klxn]v]tLsf]nflu afnL 5gf6, v]tLsf]p2]Zo / kpfju ul/g];fdu|Lx? h:tf s"/fx?df Wofg lbg' h?/L 5 . 3fd g}gnfUg] 7fpF wf/ w]/}3fd rflxg]afnL nufpg' xF\gg\ . afnL 5gf6 ubf{;s]Dd jif{sl/ nufpg ;lsg,] l56f] l56f]/ lgoldt ?kdf l6Kg ldNg,] 7"nf]emfF gxg,] uR5 h/f xg,] h/f w]/}ulx/f]Dd ghfg,] Ps jlif{s afnLx? pkoQm xG5 . wlgofFklbgf, v';fgL / ufpF ef8fsf sxL hftx?, nDdg uf[; -lrofdf xfn] vfg ldNg]Ps k|sf/sf]la?jf_, ;fu h:tf afnLx? lgoldt ?kdf l6Kg ;lsG5 . wlgofF/ ;funfO{ sG6g/df sxL lbgsf]cGt/fndf aLp 5b\nufpF

lgoldt pkefu ul//xg ;lsG5 .

5t / sf}zLdf nufOg]afnLx?af6 ljleGg kmfO{fx? klg lng ;lsG5 . hl8a'6Lsf]?kdf sf}zLdf nufOg]t'n;L, klbgf, l3ps'df/L cflbsf]k|ofu ljleGg /fu x?sf]nflu :jf:Yos/ x'G5 . ufn e]Bf, v';fg{L, wlgof,F;fu, nd]g u[; cflb bl]gs k|ofu df cfpg]afnLx?sf]k|ofu n]bl]gs vr{arfpg tyf :j:y cfxf/sf]nflu ;d]t dxTjk'Of{el'dsf v]N5 . ljleGg lsl;dsf km'nx? nufpBf xl/ofnL / hl]js ljljwtf sfod ub{3/sf]zf]ef a9g'sf] ;fy}k'hfcfhfdf ;3fp k'Ub5 . 3/ tyf ejgx?df kg{hfg]3fdsf]k|ToIf tfk ;f]g]Ifdtf la?jfdf x'G5 h;n]ubf{zx/L tfkdfg j[4 ug]dVo sf/s tTjx? ;8s tyf ejgaf6 kmlsP[sf /]8o;g Go'gLs/0f u5{. k|z:t ?v la?jf ePdf zx/L Ifq]sf]cf}t tfkdfg $-% l8u| ;]N;o;n]36g ;Sg]ljleGg cWoogx?af6 k|dfl0ft ePsf]5 . a9bf]udL{af6 aRg ljBlto k+vf tyf P=;L=x?sf] k|ofu xg]ePsfn]];a}7fpdf 5tx? ;d]t xl/ofnL ePsf]v08df pQm sfo{sf]nflu OGwg vkt ;d]t 36g]sl8k{m ljZjljBfnosf]cWoogdf pNnv 5 .

5t / sf}zLdf v]tL ug{ljleGg ;fdu|sf]k|ofu ug{;lsG5 . afnL nufpg udnf, aS;, 8'd, k'/fgf]afy 6a, afN6L h:tf sG6g]/x? tyf l;d]6, rfdn, lrgL cflbsf Knfl:6ssf]af]fx? k|ofu ug{;lsG5 . pk/f]Qm ;fdu|x?df df6f]e/] 5tdf tyf a/08fdf ldnfP/ /fVg' pQd x'G5 . 5td} k]6L agfP/ df6f]e/] jf k'/f 5t el/ g}df6f] e/] v]tL ug]rng obfsbf eP klg o;f]ubf{ 9nfgdf kfgL /;fpg]tyf 9nfg km'6g ;Sg] hf]vd xg]ePsfn]o; ;DaGwL ljzjf Wofg k¥ofpg' kb5 . df6fdf af/Daf/ kfgL xfln/xg' eGbf cf];nf]dfq agfO{/fVg' pQd x'G5 . sf7df8f}nufot ljleGg 7'nf ;x/x?df cfsfzsf] kfgL ;f]g ;Sg]v'nf Ifq lbgfglbg 36b}uO{x]sf] 5 . v'nf 7fpdf lkr tyf 9nfg ul/Psf]xgfn] yf]};do kfgL kbf{klg ;8sdf w]}kfgL hDdf xg uO{8'afgsf];d]t ;d:of cfpg ;S5 . ;fy,} cfsfzsf]kfgL ;a}au] hfBf oxfFsf]hnfwf/x? / hldgdlgsf]kfgLsf]tx kge{0f xg kfpBg / ;Vvfkg a9g ;Sg]vt/f 5 . sf}zLdf v]tL ul/Psf]v08df tyf vfnL 7fpdf dxfgu/kflnsfsf] gLlt adf]hd ?v nufPdf cfsfzsf]kfgLsf]sxL dfqf ;f]] kfgLsf]jxfjnfO{l9nf]agfpF / vfnf tyf 9n lgsf;df kfgLsf]rfk sd u/fpF .

sf7df8f}dxfgu/kflnsfdf ca gofF3/ aGbf clgjfo{b'O{j6f ?v /fKgkg]tyf sd;]sd @) k|tzt vNnf hUuf xg' kg]gLltut lg0f{o ;d]t ePsf]xBf zx/df xl/ofnL sfod ug{5t tyf sf}zL v]tL k4lt, udnfdf jf hldgdf af];fO{ ?vx? nufpg klg ;lsG5 . sg}klg ?vx?nfO{ ljzjf k|jlwsf]k|ofu af6 ;fgf]cfsf/sf]agfOPsf] ;fgf ?vx?nfO{af];fO{elgG5 . udnfdf jf vfnL hldgdf d'Gtnf, xn'jfjb, cu+/ cflb afnL nufpg klg ;lsG5 / O:s';, l;dL, l3/fnf, nf}sf, sfFmf] h:tf nx/]t/sf/LafnL nufO{xl/ofnL sfod ug{ ;lsG5 .

sf}zLdf v]tL ul/g' ;fdflhs k|ti7f xg] xl/ofnL sfod ug{;3fp k¥ofpg]/ tfhf / :j:y vfBj:t' k|fKt xg ;Sg]ePsfn]tyf dxfgu/kflnsfsf] gLltut lg0f{o nfO{;d]t ;xofu L xg]ePsfn] zx/af;Ln]o;sf]cjnDag ug'{al4dQf xg5 . ;fy,}dxfgu/kflnsf nufot cGo zx/sf]xl/ofnL arfpBf}o;af6 bL3{sflng ?kdf nfeflGjt xg /fli6o':t/sf]gLlt th'df ug{;/sf/n]klg Wofg k¥ofpg' kg]x'G5 .

*nvs, s[if ljsf; dGqfnodf s[if cyk]j1 kbdf sfo{t xg'x'G5 .

ufO{kfngsf]dxTj

✍ 8f=k|d s'df/ d08n*

g]kfnsf]s[if k|0ffnLnfO{dgg\ubf{kzkfngn] Pp6f 5§}/ dxTjk0f{:yfg cfu6]sf]5 . s[if / kzkfngsf];DaGw Ps lsl;dn]gË / df;' h:t}5 eGg'df s'g}z+sf 5g} . g]kfndf s[ifsf] ofu]bfg lbg k|tlbg 36'b}uO{x]sf]kfO{5 . ;g\!(&^÷&& df s[ifsf]ofu]bfg s'n ufx{y pTkfbgsf]&!=%# k|tzt lyof]eg];g !((%÷(^ df pQm cfF8f $)=@@ k|tzt /x]sf]b]lvG5 . To:t};g\@)!! sf]/fli6« tYof+s cg';f/ s[ifsf]ofu]bfg s'n ufx{y pTkfbgdf #!=$ k|tzt b]yfOP{sf]5 . o;/L s'n ufx{y pTkfbgdf s[ifsf]cgkflts ofu]bfg 36]sf]b]lvPtf klg s[ifsf]s'n pTkfbgdf xf'; cfPsf]b]lvb}g . To:t};g !(($÷(% df s[ifsf]s'n ufx{y pTkfbgdf kzkfngn]#! k|tzt cyf{ cGgafnL kl5sf]bf}>f]:yfg cfu6]sf]b]lvG5 eg];g\@)!! sf]/fli6« tYof+s cg';f/ s[ifsf]s'n Uffx{y pTkfbgdf kz'kfngsf]ofu]bfg @%=^ k|tzt dfq ePsf] b]yfOPsf]5 .

b]zsf]s[ifaf6 cfPsf]ufx{y pTkfbgdf kz'kfngsf]s'n c+s dWo]%# k|tzt dWo kfxf8 / (k|tzt pRr kxf8, #(k|tzt t/fO{af6 kfKt x'g]u/]sf]tYofÍ g]kfn /fi6« a}s axp2]ZoLo 3/w'/L ;j]If0f !(*$÷*% df pNnv 5 . of]ofu]bfg b'w pTkfbgaf6 $#=!# k|tzt / df;'af6 @% k|tzt tyf kz'dn / kz'zlQmaf6 @&=%@ k|tzt ePsf]b]lvG5 . ut !) jif{df b'w pTkfbg ;/b/ @=@% k|tztn] a9]sf]kfO{5, To;df klg ufO{sf]b'w #=)$ k|tzt / e}Lsf]b'w @=!(k|tztn]j[4 ePsf] s]Gb|o tYofÍ ljefun];g !((^ df hgfPsf] 5 . g]kfndf pTkflbt b'w dWo]ufO{af6 #)=*% k|tzt / e}Laf6 (^=!% k|tzt x'g]ub5 . oL pTkflbt b'w dWo]*) k|tzt htL h;n] pTkfbg ub5 p;n]g}k|ofu]df NofpF5 . afFsL dWo]!)÷!! k|tzt dfq laqmL ug]u/]sf] tYofÍ ;fjf{hlgs eO/x]sf]/ afFsL b'w dWo] l3p tyf cGo kl/sf/ agfO{g]u/]sf]kfOP{sf] 5 . of]b'w pTkfbg k|t JolQm $^=*^ ln6/ x'g cfp5F . hals cfwf/e"t cfjZostf cg;f/ k|t JolQm k|t jif{%&=& ln6/ xf]. o;/L Psflt/ kofK{t dfqfdf b'w pTkfbg eO/x]sf] 5}g eg]csf]lt/ o;af6 kfpg]cfDbfgL klg l;ldt dfq b]lvG5 . s[if jf kz'kfngnfO{ hLjg lgjfx{sf]af6f]g7fg]/ Joj;fos}?kdf cjnDag ug'{kg]{cj:yf cfPsf] 5 .

b]zsf -zx/L Ifqdf ^% k|tzt / ufld0f Ifqdf *% k|tzt eGbf a9L_ dflg;x? s[if k]zfdf cfwfl/t eP tfklg s[if jf kz'kfngnfO{ Joj;fo eg]/ clËsf/ gu/]sf]sf/0fn]g} s[fsx?n]cfkm\gf]>dsf]plrt d'No kfPsf 5}g\. To;y{kz'kfngnfO{Pp6f Joj;fosf] ?kdf kl/0ft ug{o;df ;+nUg ;Dk0f{s[fs tyf kfljlwsx?df r]tgf hufpg ;Sg]cj;/sf] >[hgf ug'{kb5 . cyf{ s[fs :t/df sfd ug]{;Dk0f{-kf=;=÷gf=kf=;=_ tyf kfljlws sd{rf/Lx?nfO{plrt tflnd tyf e|d0fsf] cj;/ k|bfg u/L bIf kfljlwssf]ljsf;df Wofg lbg' lgtfGt cfjZos b]lvG5 .

g]kfndf kfO{g]ufO{sf hftx?

-!_ :yflgo kxf8L uf0{

- d':tfËdf kf0{g]n'n' uf0{
- t/f0{Ifqdf kf0{g]xl/ofgf uf0{
- c5fddf kf0{g]c5fdL uf0{
- 0nfd Ifqdf kf0{g]lz/L uf0{
- 8f6L / a}8L Ifqdf kf0{g]vnf uf0{

-@_ pGgt tyf j0f{z+s/ uf0{

★ h;L{j0f{z+s/ uf0{
★ afpg l:j; j0f{z+s/ uf0{
★ xf]nl:6g lk|nlhog j0f{z+s/ uf0{
★ xl/ofgf j0f{z+s/ uf0{

uf0{kfngdf hf]lvd kIf

uf0{kfng Joj;fo c;n tl/sfn]ubf{ub}{ klg kfs[ts k|sfk / dfgj lgldt{ cj/fwx?n] ubf{pTkfbgdf sdL cfpF5 . ;fy}ahf/sf] k|t:kbfn{]ubf{pTkflbt a:t'sf]dNo sd u/L a]g'k/]sf]xG5 . t;y{oL cj/fwx?nf0{;dfjz u/L Joj;fo ;+fng ug'{kg]{xG5 . slxn] sfxL uf0{df y'gnf]/fun]ubf{!* b]lv @) k|tzt;Dd b'wdf sdL cfpg ;Sb5 . To:t} vf]/]t /fu nfu] @) k|tzt;Dd pTkfbgdf xf; cfpF5 . oL hf]lvdnf0{;'wf/ ug{pTkfbg nfutdf klg a9L vr{e0/x]sf]xG5 . o;/L dfgf}@) k|tzt pTkfbgdf sdL / !) k|tzt pTkfbg nfutdf a9L vr{x'g'g}o; Joj;fosf] gsf/fTds kIf xf].

pTkfbsTj a9fpg]pkfox?

- klxnf]a]tdf a9L b'w lbPsf]uf0{vl/b ug]{
- kfFf}a]tkl5 uf0x{? gkfNg] olb kfNg}k/] yk :ofx/ k¥ofpg'kb5 .
- ahf/df kf0{g]bfgf v'jfP/ b'wsf]pTkfbg t a9\5 t/ pTkfbg nfut klg a9g]xbf ;:tf]xl/of]3fF;df a9L hf]8 lbg'kb5 .
- cfjfwL pkrf/, 8]krË, EoflS;g]zg 0Toflb s'/fdf Wofg k¥ofpg'kb5 .

cfxf/f Joj:yfkg

★ afR5fafR5Lnf0{;/b/ $ dlxgf;Dd dfpsf] b'wsf];fy}yk xl/of]3fF; ! s]hL= lbg]/ $ dlxgfkl5 !@ dlxgfsf]pd]/;Dd xl/of] 3fF; @ b]lv $ s]hL= / k/fn ! s]hL= tyf bfgf)=% s]hL=sf]b/n]lbg'kb5 . bf];f] jif{af6 3fF; % s]hL= k/fn # s]hL= / bfgf ! s]hL= lbg'kb5 .
★ ule0{fL uf0{nf0{@ s]hL= bfgf @) s]hL= 3fF; / * s]hL= k/fn k|t lbg lbg'kb5 .
★ b'xgf uf0{nf0{ule0{fL uf0{sf]h:t}bfgf % ln6/ b'w ;Dd oyfjt / yk % ln6/ b'wsf] nflu @ s]hL= yk bfgf lbg].

uf0{kfngaf6 x'g]kf0bfx?

cfly{s cj:yfdf ;'wf/, 3/kl/jf/sf ;a} ;b:ox?n]sfd kfpg]ePsf]xbf a]/f]huf/L ;d:ofsf];dfwfg, b'wsf]cfjZostf kl/kl't{ x'g'sf];fy}:yflgo :t/df kf0{g]cfxf/fsf] ;bkofu e0{v]tLsf]nflu cfjZos kg]kfu+fl/s dnsf]?kdf uf0{sf]ufa/ / dn d'q k|ofu u/L s[if k]zf af6 cfjZos cfDbfgL lng ;lsG5 .

*nlys, ========== df sfo{t x'g'xG5 .

ufjhe8Ff afnLdf nfUg]9';L hGo /fjux?sf] /f]syfd Pj+lgoGq0f lalw

✍ clgn rGb|gjpkfg]*
✍ zfjef 9sfn**

!= kl/ro

gjkfndf ufjhe8Ffsf]v]tLnfO{xg]{xf]eg]k/fk]'{ sfnbjlv g}ub{cfPsf]kfOG5 . cfkm\gf]3/ j/k/ slDtdf klg Ps af6 ufjhe8Ff nufpg] / o;nfO{crf/sf]?kdf laxfg, aj'sf / lbp;f]sf] vfhfsf]?kdf klg vfg]u/]sf] kfOG5 . of]kmn ;+f/sf];a}jun[]vfg dg k/fpFg . o;df le6fldg P, aL, ;L, O{tyf SoflN;od / km:kmf/]; h:tf vlgh a:t'x? kfOG5 h;n]ubf{o;nfO{u/Ljsf];'Gtnf klg eGg]ul/G5 . ufjhe8FfnfO{ljleGg t/sf/Ldf ld;fP/, crf/ agfP/ jf sfF};nfbsf]?kdf klg vfg]ul/G5 . o;nfO{k|zfjwg u/L ;;, s6\rk tyf tfhf /;df klg k|ofu ul/G5 . kmnnfO{6'qmf kf/L 3fddf Ps b'O{lbg;Dd ;'sfP/ cldnf]crf/ agfP/ klg vfg] ul/G5 . o;sf]v]tL t/fOb]lv leqL dwjzdf lxpFdf / tNnf]kxf8bjlv dWo kxf8sf] $))-!,!)) ld6/ prfOdf o;sf]pTkfbg aiff{df vNnf 7fpFdf kfgLsf]sf/0fn]/fdf] pTkfbg ug{g;lsg]x'gfn]Knfli6s-3/ leq o;sf];kmn pTkfbg z? ul/Psf]5 .

ufjhe8Ff afnLdf ljzjf u/L la?jf cj:yf, /fkjbjlv afnL lng]cj:yf / l6kjkl5 yGSofpg] jf 9'jfgL u/] pkefu gubf{;Ddsf]cj:yfdf /fjun]a9L cfqmd0f ug]{ub5 . ufjhe8Ffdf nfUg]/fjux?nfO{9';LhGo, AofS6]/ofsf]sf/0fn] nfUg]efO/;sf]sf/0f nfUg]/ h'sfsf]sf/0fn] nfUg]u/L $ efudf af8Fg ;lsG5 . cfiff9 / >fj0f dlxgfdf /fkjsf]ufjhe8Ff v]tLdf 9';L hGo /fjux? nfUg ;Sb5 h;sf nIf0fx? / /f]syfdsf pkfox? tn pNnjv ul/Psf]5 .

@= 9';L hGo /fjux?

s_ ;]tf] w'n] 9';L **(Powdery Mildew)** of]/fju *Oidium neolycopersici* gfdsf]9';Lsf] sf/0fn]ubf{x'g]ub5 . Knfli6s 6gjn / xl/t ux leq sd xfjf axg]sf/0fn]ubf{of]/fju bjvf kb5 . /fjusf]z?sf]cj:yfdf kftsf] dflyNnf]efudf ;]tf v/fgL 5/]h:tf]bjvf kb5 . ha /fju a9b}hfG5 tj tL ;]tf v/fgL h:tf]efu ljsl;t eP/ /ftf]/ftf]v/f]lsl;dsf] 7'hf wAjfdf kl/0ft x'G5g\. To; kZrft kftx? dg{yfNb5g\ /ftf]/ftf]/ª\df ha kl/0ft x'G5g\ / emg{yfNb5g\.

lrq g=+!= ;]tf]w'n]9';L ufjhe8Ffsf]kftdf

/f]syfd / lgoGq0f

!= of]/fjusf]/f]syfdsf]nflu la?jf nufpFbf cln km/sdf nufpg' kb5 / xfjfsf] cfjt hfjt a9fpgkb5 .

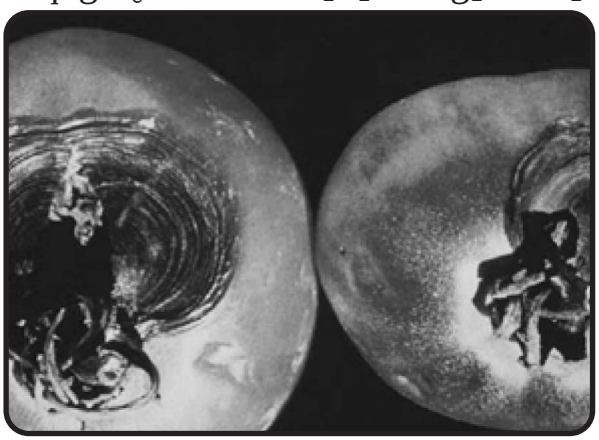
@= ! efu emfjn dn jf lultdn $ efu kfgLdf ld;fP/ xKtflbgsf]km/sdf

nuftf/ 5g\ ugfk]of]9';L hGo /fli6«sf] sdL ePsf]kfOPsf]5 .

v_ cN6/gl/of /fli6« **(Alternaria/Early Blight)**

of]ufhe8fdf k|oh;f]bvf kg{/fli6« xf] hlg *Alternaria solani* gfdsf]9';Ln]ubf{xg] ub5 . z?df ;fgf]v8f]jf sfnf]yfkmnf kftsf] tNnf]efudf bvf kb5 . yfkmnfx? a9b}hfG5g\ hfl8b}hfG5g / xftsf]cfhfsf]rqm h:tf 3d}sf]ufhf jf c08f cfsf/sf 7"nf wAjfx?df ;fdfGo sf]cfwf/f h:tf xG5g\. /fli6« nfu}sf kftx? kxhf] ;Vvf xG5g / kftx? emg{yfNb5g\. o;n]8fF8 / kmndf klg cfqmd0f ub5 . 8fF8df sfnf] lehg}sf]h:tf]wAjf bvf kb5, hlg a9b}hfG5 / k'/}8fF8df afqmf vOlnP/ sf08 dfq afwfL /xG5 h;n]ubf{8fF8 efiffG5 . kmndf klg kftdf h:t}3d}sf ;fdfGo sf]cfwf/f h:tf wAjfx? bvf kb5 / kmnsf]afqmf vOlnG5 .

lrq g=@ kftdf nfu}sf]cN6/gl/of /fli6«



lrq g=# kmndf nfu}sf]cN6/gl/of /fli6«

/f}syfd / lgoGq0f

!= tftf]/ cfb|tfoQm xfjfkfgLn]ubf{of] /fli6« a9b}hfg]xg'fn] lj?jfx? kftnf] &)÷&) ;dL= lj?jf bl/v lj?jfsf]b/L xg]u/L nufpg] g;{L jf afnLdf w/}kfgL gnufpg].

@= Ps jif{la/fP/ dfq ToxL hUufdf ufhe8fdf v]tL nufpg] kmn l6kL; s}kl5 ufhe8fsf]e\of^\nf0{cfufqdf hnfpg].

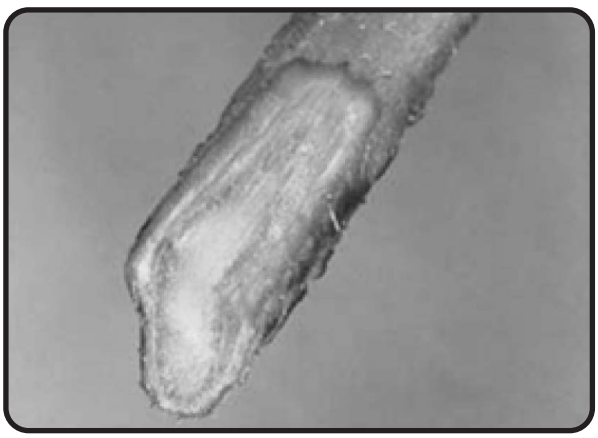
#= of]/fli6« nfu}sf]7fpdf l:k|^\sn tl/sfaf6 l;Ff0{gug{]g;{L / afnLnf0{o'eL Knfli6s 6g]h leq nufpg] .

$= aLpnf0{nufpg' eGbf klxn]%)) ;G6Lu8 tfkqmsf]kfgLdf #) ldgG6 ;Dd lehfP/ dfq nufpg]/ Anf06S;–%) jf lhg] -)=@ k|tzt_ jf Sofk6fg -)=@ k|tzt_ jf af8]; ldSr/ -%M%M%)_ nf0{!÷@ xKtfsf]cGt/df la?jf nufPsf]! dlxgfkl5 5g{z? ug{]t/ ljiffbLx?n] ;du|dfgjhftL, kzkHL / jftfj/0fnf0{ c;/ kfg{]x'gfn]g5g'{/fdf]xf].

u_ km\ohfl/odn]ubf{xg]cf0n]/fli6« **(Fusarium wilt)**

of]/fli6« *Fusarium oxysporum* f.sp. *lycopersici* gfdsf]9';Lsf]sf/0fn]ubf{xg]ub5 . of]/fli6«n] ufhe8fsf sxL hftx?df dfq cfqmd0f ub5 . /fli6« nfu}kl5 kftx? kxhf]xg]/ cf0nfpg] xG5 hlg la?jfsf]8fF8sf]tnaf6 z? eP/ dfly hfG5 . o;sf]z?jftdf kftsf]xfwfsf] / k'/}la?jfsf]Ps ;f08df dfq bvf kb5 / kl5 la:tf/}c? efudf klg kmhg yfNb5 . /fli6« nfu}sf]lj?jf l566}db5 / sd kmn nfUb5 . /fli6« nfu}sf]lj?jfsf]sf08df kxhf] w;f{lj:tf/}tn dfly ;g{yfNb5 .

lrq g=+$ kmo'hfl/od cf0nfpg]/fu nfu]sf] la?jf



lrq g=+% /fu nfu]sf]la?jf sf6] xbf{b]vg] nIf0f

/f]syfd / lgoGq0f

!= of]/fusf]/f]syfdsf]nflu kfgL hDg glbg,]/fu dQm aLp /fKg]/ rf/ aif{Dd of]/fu nfusf]7fpFf ufhe8f gnufpg,] /fun]u|:t la?jfnfO{pvfn] hnfpg] ugk{b5 .

@= ahf/df kfOg];Hhag L gfdsf]hl]j s ljiffbLåf/f aLp, Aof8sf]df6f]/ a]gf{ pkrf/ ug].

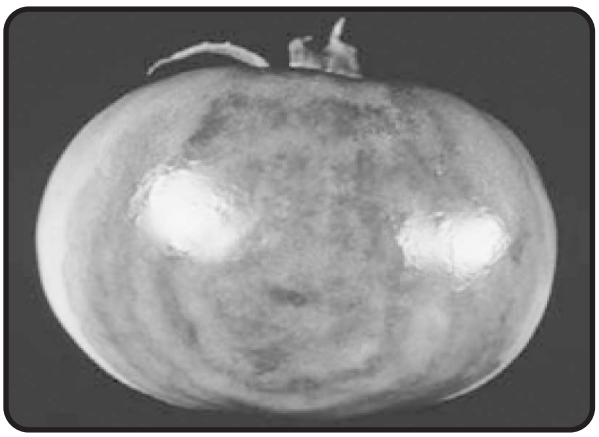
#= lk= ;'/Iff % ufd k|t ln6/ kfgLsf b/n]a]gf{;f/]sf]!% / @% lbgdf 5g]

$= gf]ef, o'/]sf, l;l/; / ;[]; hftx?df of]/fu sd nfUg]x'gfn]7fpFcg';f/ pQm hftx? nufpg].

ª_ 89'jf /fu **(Late Blight)**

of]/fu *Phytophthora infestans* gfds 9';Ln] ubf{x'g]ub5 . lr;f]xfjfkfgL / jfo'df cfb|tf a9]sf]jnfdf of]/fun]cfqmd0f ug]ub5 . of] /fun]z?df lst ;a}eGbf k'/fgf]/ tnsf] kftdf jf ;a}eGbf gofF/ dflysf]kftdf cfqmd0f ub5 . z? z?df kfgLn]leh]sf h:tf Ifqx? b]vf kb5g\. ltgLx? Psbd}l56f]a9\g yfNb5g, sfnf]sfnf]xl/of]wAjfx? b]vf kb5g / la?jf t';f/fn]vfP h:tf]b]vG5 . cfqmd0f u/]sf]kftsf]tNnf]efudf v/fgL /ª\sf];]tf] b]vf kb5 . xl/of]jf kfs]sf]kmndf cfqmd0f u/]sf]5 eg]kmndf v}f]wAjf b]vf kb5, kmn l5§}lau|L xfNb5 / s'lxPsf]uGw cfpg yfNb5 .

lrq g=+^ 89'jf /fu nfu]sf]la?jfsf]kftdf b]vg]nIf0f



lrq g=+& 89'jf /fu nfu]sf]kmndf b]vg]nIf0f

/f]syfd / lgoGq0f

!= of]/fu]sf]/f]syfdsf]nflu /fu] dQm aLp /fK]g]/ of]/fu] nfusf]7fpFdf #, $ aif{Dd ufn]e}Bf gnufpg]To;df cGo afnL nufpg].

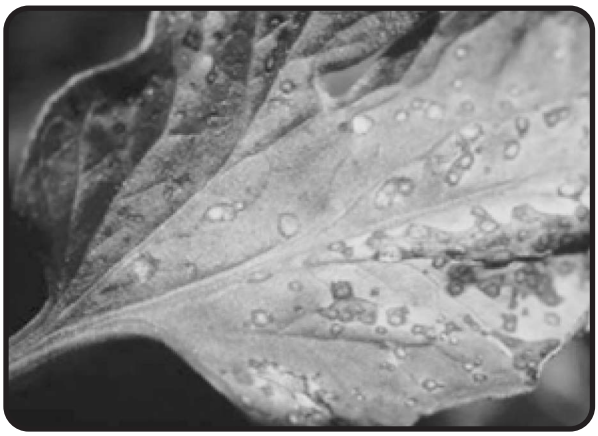
@= kftx? lr;f]ePsf]j]nf sfd gug]{ /fu]n]u|t la?jfnfO{pvfn/] hnfpg].

#= /fu] vKg ;Sg]hftx? h:t}l;hg{f / Pr cf/ 8L !& sf]v]tL ug]{.

$= a]gf{/fK]g]b]lv g}wfg'sf]k, AnfO6S;, sk6/ h:tf ljiffbLx? @ u|fd k|t ln6/ kfgLsf b/n]ld;fP/ 5g]{.

%= /fu] nflu;s]sf]cj:yfdf /fu] b]lvgf;fy lqmgf]S;n ufN]8, ;+f/, :k]$6f, jf xfOldn @ u|fd k|t ln6/ kfgLsf b/n] $÷% lbgsf]km/sdf @÷# k6s 5g' kb5{ .

r_ kftsf];K6f]/of yfK]n]/fu] **(Septorai Leaf Spot)** of]/fu] *Septoria lycopersici* gfds 9';Ln]ubf{ x'g]ub5{ . /fu]sf]z?df ;fgf,] kfgLn]leh]sf yfK]nfx? b]vf kb5{g\. tL yfK]nfx? kl5 v}f] v}f];]tf]sG]b|ePsf / uf9f lsgf/f ePsfsf] ?kdf kl/0ft x'G5g\. /fu]sf]k|sf]k Hofbf ePkl5 kftx? kxn]hf]xbF}hfG5g\/ la:tf/}v:b} hfG5g\. /fu]n]h'g;'s}a]nf cfqmd0f ug{;Sb5 t/ kmn nfUg]a]nfdf o;sf]k|sf]k a9L x'G5 . of]/fu] kfgL k/]sf]a]nf a9L x'g]ub5{, z?df tnsf kftx?df x'G5 / lj:tf/}dfly a9b}hfG5 .



lrq g=+* kftsf];K6f]/of yfK]n]/fu]sf]nIf0f lj:t[t lrq

lrq g=+(kftsf];K6f]/of yfK]n]/fu]n]ljgfz kf/]sf]ufn]e}Bf afnL

/f]syfd / lgoGq0f

!= of]/fu]sf]/f]syfdsf]nflu /fu] dQm la?jf /fK]g]/ cln km/sdf la?jf /fK]g' kb5{ . l;FfO{lj?jfsf]km]bdf / laxfgL kv ugfn]/fu] sd nfUg]x'G5 .

@= /fu]n]u|t eP/ em/]sf kftx? x6fpg,] df6f]dlg k'g]{jf hnfpg]ug'kb5{ .

#= 3]Dt afnL rqm ckgfpg]/ ToxL hUufdf #÷$ aif{sf]cGt/df dfq ufn]e}Bf nufpg]ug'kb5{ . kfgL k/]sf]a]nf jf laxfgsf]lz tdf ufn]e}Bf af/Ldf sfd ug'{xbF}g .

em_ cf]0nfpg] /f]u **(Damping off)** ufnhe]8fsf]cf]0nfpg]/f]u *Rhizoctonia solani* gfds 9';Ln]ubf{xG5 . of]/f]u lr;f]/ leh]sf] df6f]df xg]ub5 . ;fgf]la?jfx? df6f]af6 lg:sg]lalQs}jf glg:sb}dg]ub5g\. la?jf df6f]af6 lg:s]kl5 of]/f]un]cfqmd0f u/]df lj?jfdf kfgLn]leh]sf]h:tf]efu b]vf kb5, h'g Psbd}g/d xG5, efFrG5 / hldgdf 9N5 . la?jf 7'nf]e0;s]kl5 cfqmd0f u/]df la?jfsf]afqmfdf /ftf]/ftf]v}f]efu b]vf kb5, afqmf v'OlnG5 / cGtdf la?jf db5 .

/f]syfd / lgoGq0f

!= of]/f]usf]/f]syfdsf]nflu df6f]nfO{w/]} lr;f]gagfpg] kfgLsf]lgsf;sf]/fdf] k|aGw ug]/ cln km/sdf la?jf /f]g].

@= la?jfsf]g;{L /fVbf clns p7fP/ /fVg]/ g;{Lsf]df6f]nfO{pkrf/ u/]/ dfq nufpg]. 3]Dt afnL rqm ckgfpg cGo afnLx? h:t}ds,}hf,}af8L / Tolx hUufdf #÷$ aif{sf]cGt/df dfq ufnhe]8f nufpg]ug]{kb5 .

#= ;Hhag L -6fO{sf8df{lel/8L_ / bdg la P; -al];n; ;lA6ln;_ gfds 9';Lx?sf k|ofu ug].

$= g;{L jf la?jfdf of]/f]u b]vf kg]{ lalQs}al]eli6g, gfleli6g jf Pl/li6g gfdsf ljiffbLx? @ u|fd k|t ln6/sf b/n]kfgLdf ldnfP/ %÷& lbgsf]km/sdf k'/}la?jf leHg]u/L 5g'{kb5 .

* n]vs, s]o/ g]kfndf kl/of]hgf Joj:yfks kbdf sfo{t xg'xG5 .

** n]vs„ Joj;fo k|j4{g tyf ahf/ ljsf; lgb]zgfno xl/x/ejgdf s[i k|;f/ clws[t kbdf sfo{t xg'xG5 .

;Gbe{;fdfu|x?

- >]7, lqnf]o gfy, @)^) . a]df}dL t/sf/L pTkfbg k|jlw
- >]7, s[0f s'df/L, @)$& . g]kfndf t/sf/L afnLsf dVo /f]ux? .
- s[if ljsf; 8fo/L, @)^) . s[fs ;Nnfxfsf/ ;]f .
- vltj8f, a]o k|;fb, @)^) . ufnhe]8f pTkfbg lnFf / pTkfbg kZrft ckgfpg' kg]{k|jlw, s[if ;Gb]z, s[if / kz'la1fg cWofg ;+yfg, /fdk'/, lrtjg, g]kfn .
- uf}td, O{Zj/L k|;fb, pkfWofo, sflnsf k|;fb, kf8]n, v8\u eQm, @)%* . jif]ufnhe]8f v]tLsf nflu Knfli6s 3/sf]k|ofu]M Ps cg'ej, k|jlw ;Ffnf] g]kfn s[if cg';Gwfg kl/ifb, s[if cg';Gwfg s[]b| nDn].
- Gof]kfg] kml0fGb|k|;fb, @)$^ . afnL la?jfsf zq'x? / ltgsf]/f]syfd, ;femf k|sfzg, sf7df08f}.
- kf]v/]h, /d]z/fh, @)$# . afnL la?jfsf /f]u / /f]syfd .
- kg]?, /fdafa', @)%! . t/sf/Ldf nfUg]dVo dVo /f]ux? / ltgsf]/f]syfd .

- Davis, Mark, Dinham, Barbara and Williamson, Stephanie. 2002. Sustainable tomato production. Pest Management Notes: 13. Pasticide Action Network, UK.
- Gleason, M.L. and Edmunds, B.A. 2006. Tomato diseases and disorders. Iowa State University, University Extesion.
- Kennelly, Megan. 2007. Wilt, Nematode, and Virus Diseases of Tomato. Kansas State University Agricultural Experiment Station and Cooperative Extension Service.
- Pandey, B.P. 2005. Plant Pathology, Pathogen and Plant Disease. S. Chand and Company Ltd. Ram Nagar, New Delhi.

lghfdtL ;]f lbj ; @)&) sf]pknIodf s[if ljsf; dGqfnoåf/f cfof]hgt k|tof]utfdf k|yd :yfg kf]Kt ug{;kmn sljtf

g]kfnsf]s[if ljsf;

✍ ejfgL vltj8f*

g]kfnL xfdL o}df6f]}Fn, vn]/ x'sf] .
kf/v ul/ ;d[4 g]kfn, agfpg h6sf ..
:jbzL df6f]>dn]r'df}gfgL em}jGb5 .
lx/f / df]L oxL 5g x/], l6k g eGb5 ..

;Defjgfsf vfgL 5g\oxf, ltgnnf0{hfg] .
pJhgL nfpFn] hxfFkmN5 , To}jfnL 5fg] ..
lxdfnL eu| r/gdf e8f, Rof+u| / rf/L uf0{.
cn}+L, lrof, t/sf/L, skmL, ;hfpFkxf8nf0{..

k|jlw gofF s[ifdf leq\of0{k|;f/ u/fg .
ofGqs clg cf}wf]us/0f, v8\sf]r9fg ..
;'rgf ;Ghfn ahf/sf]jgf0{To+eq j;] .
pJhfpg]s ;fg, pkef]us tf{vfg]xf]ldn] ..

uf|xs sf]O{5f, rfxgf alem, u/f}g pTkfbg .
k|ut+fl/slt/ nDsfg+ To;d}kmf0{f w]/}5g ..
dlxnf ls ;fg kf/vsf wgL, xf}nf lbgnf0{.
;dfg sfdsf];dfg Hofnf, ;Ddfg ltgnf0{..

hn 5 ckf/ l;+rf0{hf] lgdf{0f u/fpb}.
k|jlw,dn, ljB't,;8s, k'jf{wf/ jgfpb}..
vfBfGgjfnL pJhfp w]/}cfoft s6fpm .
cn}+L,lrof,t/sf/L, skmL, ljbzL k7fpm ..

n}ssf]afEmf]3f+F / r/g, jzLdf em/fg+ .
;Gtnf, s]/f, lnlr / cfk+F, emkSs}e/fg+ ..
df5f / ju+'/, rf]kfof, df/L, xf+F / s'v'/f .
kf/vL xfdf] kl;gf;u+,}d':sfp5g\6fs'/f ..

k/f0{bzdf kl;gf kf]bf, df6f]of]?b5 .
;gsf s0f o}df6f]df 5g\, p7fp eGb5 ..
>hgf kf]vf+ns / jzL, t/f0{;hfpm .
s[ifdf qmflGt u/] g]kfn, ;d[4 jgfpm ..
s[ifdf qmflGt u/] g]kfn, ;d[4 jgfpm ..

.. ;dfKt ..

lghfdtL ;]f lbj; @)&) sf]pknIodf s[if ljsf; dGqfnoåf/f cfof]hgt k|tof]utfdf låtLo :yfg k|fKt ug{;kmn sljtf

gk|fndf s[if ljsf;

✍ ?b|vgfn*

Ps uf=F vfg lgTo ;sg 3/df cfwLx'/L cfp5
sf]bfnf]af6f] lx8g vl8df dh's ef}kb5
wtLnfO{cfdf dfGgx?? w/tLnfO{g}/fHb5g\
wtLnfO{a'emg g;Sgx?? dxn dfq}tfS5g\.
cfofd 5 ljsf;sf]
To;}n]
oxfF s[if ljsf; 5 .

hdLg vGg'sf]s8f bIv af6f] yfKnfe/
rf8f af6f]agf] kmn}g vfH5g\ls ;fg t/
dfg; k6ndf ls ;fg bnn]kmnkmh' pAhfpF5
bj]L bj]tfx?sxF8gTo klk jiffpF5
cfofd 5 ljsf;sf]
To;}n]
oxfF s[if ljsf; 5 .

RoftL ^ofSg tof/ 5f}8tdL vl8af/L k'/fgf]5 / <
hdLgdf gjHoft]L emNdn xg]cGg afx]s s]5 / <
af6f];Gb/ vgf}cfh klxn]x'/Ljtf; cfpF5
cfofd 5 ljsf;sf]
To;}n]
oxfF s[if ljsf; 5 .

ugk{fk u/] cf^gf]3/df dlGb/df wfpF5g\
dfvf]dfg{tfst gxg]x?? 7'hf]wfs nfpF5g\
vl8af/L afFem}/fv] logn]udnf tfSb5g\
!@ j;Gtsf]dd{ga'emgx?? s[ifnfO{xN5b5g\
cfofd 5 ljsf;sf]
To;}n]
oxfF s[if ljsf; 5 .

gk|fnn]gk|fnLnfO{j/bfg lbP5
vf}hf, gfnf, hdLg hu+n Sof /fdf]/x5
k'vf{sf]zfg, gfd / dfg /fVg]o}Pp6f /x5
cg]s tfdf Pstf xfjfkfgLdf ljljwtf gk|fn xfdf]k|fOf /x5
cfofd 5 ljsf;sf]
To;}n]
oxfF s[if ljsf; 5 .

df}hfPsf];a}ljs[t RofltbP ca
;bfrf/L agf}cfh ;a}/fi6«]s
:jR5 lgikIf xf] xfdf]bz sf]zf;g
ou}ou agf] cDd/ lr/sfn s[if sf];Dg
cfofd 5 ljsf;sf]
To;}n]
oxfF s[if ljsf; 5 .

lghfdtL ;]f lbj; @)&) sf]pknIodf s[if ljsf; dGqfnoåf/f cfof]]ht
k|tof]]utfdf t[to :yfg k|fKt ug{;kmn sljtf

g]kfnsf]s[if ljsf;

✍ ab|, vgfn*

t[tofF uf|x{y pTkfbg
bO{ltxfO{sf]/f]huf/L
of]ubfg a'emf}s[ifsf]
cGTo u/f}ef]sd/L .

skf]]f0fn]cfsfGt k|tWjlg
gulGhpg st}klg
k|tfl8t hgdfg;n]geg'g\
vfB ;Dk|etf v}elg .

l:y/ pTkfbgsf]Wo]o xg}
nfuf}pTkfbsTj j[4df
dn, aLp, k|jlw / k|zf]wgn]
pT;fx xf];\s[ifsd{df .

l;FfO,{cf]hf/, ;/Hf0f / ahf/
cfwf/ xg s[if ljsf;sf]
pGgt v]tL kzkfng u/L
cfDbfgL a9f];\ls;fgsf].

s[fs s]Gb|t xf];\xfd|f]sfo{
s[ifs/ 56 u/f}ca
;xh C0f pknAwtf ;F}
u/f}kz'afnL jLdf ta .

cg';Gwfgdf xf]; ljzi]f hf]8
lzIffn]hgzlQm ljsf;df
pRr dNosf]:t/Lo pkh\xf];\
ljZj Jofkf/ dfkb08df .

Joj;foLs/0f u/f}s[ifsf]
k'jfw{f/ ;d]t v8f u/L
ljljb cg'j[Q k|bfg ;F}
pTkfbg nfut sd u/L

lk8f+n'

✍ ;lzn v8\sf *

kl/ro

lk8f+n'nfO{cu|hLdf 6f/f] (Taro) jf O8\8f] (Eddoe) elgG5 eg]o;sf]lxGbL gfd cle{ (ARVI) xf]. of]P/]s];L (Araceae) kl/jf/df kb5 / hg; sfnf]Sofl;of (Colocasia) xf]. xfdLn]vfg]lk8f+n'O:sn]6f (Esculenta) hftsf] xf]. of] Ps jif{ t/sf/L afnL xf].

lk8f+n'df kfOg]ljleGg kf]i6s tTjx? lk8f+n'sf]8fF Pj+ufgf]ltg}yf]s t/sf/Lsf] ?kdf k|ofu ul/G5 . ufgf]nfO{pl;g], kf]n] vfOG5 ;fy} t/sf/L agfpg klg k|ofu ul/G5 . kft tyf 8fFnfO{xl/of]t/sf/L sf] ?kdf cyjf ;'sfP/ kl5 vfg]rng klg 5 . ufgf]df :6fr{k|z:t kfOG5 h;df !& b]vL @% k|tzt PdfOnf]h xG5 . o;sf ;fy}lk8f+n'df kfOg] kf]i6s tTjx? o;k|sf/ 5g M

s‡;	gfd	dfqf
!	lr:ofg	&#=! uf|d
@	lrNnf]	)=!
#	/];f	!=) uf|d
$	Sofnf]L	(&
%	km:kmf];	!$) uf|d
^	SoflN;od	$) uf|d
&	;f]8Lod	(=) uf|d
*	kf]6g	# uf|d
(	vlgh	!=& uf|d
!)	cGo sfaf]xfO8]6	@!=! uf|d
!!	cfO/g	!=& ldlnuf|d
!@	kf]6f;Lod	%%) ldlnuf|d
!#	le6fdLg aL	$) cfO o'
!$	/fOaf]km\nflag	)=)# ldlnuf|d
!%	yfoldg	)=)(ldlnuf|d
!^	lgsf]6gLs Pl;8	)=$ ldlnuf|d

xfjfkfgL

lk8f+n'udL{xfjfkfgLdf x'g]afnL xf]t/ t';f/f gkg]dWo kxf8L Ifqdf klg v]tL ul/G5 . t/fO{ e]udf o;sf]v]tL /fd|f]xG5 . o;n]lr;f]/ t';f/f];xg ;Sbg . afnL ;doel/df !))) ld=ld jiff{x'g]7fpFdf ufgf]sf]pTkfbg /fd|f] xG5 . lk8f+n' v]tLsf]nflu cf}t b]gs @! b]lv @& l8= ;=] tfks|d cfjZos xG5 .

df6f]

/fd|f];F kfgLsf]lgsf; x'g]anf6]df6f]df lk8f+n' v]tL /fd|f]xG5 t/ o;df k|z:t dfqfdf k|fªuf/Ls kbfy{x'g h?/L 5 . xNsf t/ bf]d6 df6f]df lk8f+n'sf]ufgf 7'nf]xG5 . o;nfO{ lrD6fOnf]df6f]df klg v]tL ug{;lsG5 / s]xL xb;Dd df6f]df kfgL hd]sf]cj:yfnfO klg ;xg ;S5 . df6f]sf]lk=Pr %=% b]vL & lk8f+n' v]tLsf]nflu /fd|f]xG5 .

hftx?

g]kfndf lk8f+n'sf :yfgLo hftx? h:t}xfQL kfp, v/L lk8f+n' cflb nufpg]u/]sf]kfOG5 .

aLp tyf aLpb/

lk8f+n'df afg:klts k|;f/Of ul/G5 . 6';f knfPsf], sl/a #) u|dsf]ufgf]x? aLpsf] ?kdf k|ofu ul/G5 . t/ ufgf]7'nf]ePdf @ b]lv # cfFnf /flv sf6] klg /f]Kg ;lsG5 . dVo ufgf] (Mother corm) eGbf ;]nf (Cormel) nfO{aLpsf]?kdf k|ofu ug'{/fd|f]dflgG5 . Ps x]S6/ hUufdf nueu ! 6g jf #&))) hlt ;]nf cfjZos xG5 .

/f]Kg];do / t/Lsf

kxf8df r]t-j]zfv / t/fO{df j]zfv-hj]7df

8\ofª agfP/ jf km/flsnf]hldgdf nf0g sf]/L jf xnf]sf]l;ofdf /f]g ;lsG5 . Ps nf0g b]lv csf{nf0gsf]b"/L sl/a ^) ;]dL= x'gkb5 . af6sf]b"/L @% b]lv #) ;]dL rflxG5 . /f]k;s]kl5 emf/kft jf :ofpnf cflbn]5f]gkb5 .

hldgsf]tof/L
lk8fm'vtL ug{hUuf @ jf # k6s @) b]lv @% ;]dL= sf]ulx/f0df hf]t/ df6f]v's'nf] kfgk{b5 . bfd6 df6fdf vfN8f agfP/ vfN8fdf /f]bf /fdf]pTkfbg x'G5 eg]PnlePn df6fdf df6f]clnslt p7fP/ /f]bf pTkfbg /fdf] x'G5 .

dnvfb
Ps x]6/ hUufsf]nflu !% b]lv @) 6g sDkfi6 xfNgkb5 eg]/f;folgs dnvfbx? *) M %)M !)) s]hL gf06fhg, km:kmf]/; / kf6f; k|t x]6/ l;kmfl/; ul/Psf]5 . /f;folgs dn xfNbf lk8fm'ld7f]gx'g]/ 8f7 slxg]cg'ej ul/Psf]5 .

uf8dn tyf l;Ff0
lk8fm'afnLdf emf/kft x6fpg, df6f]v's'nf] kfg{/ ps]/f lbg uf8dn ug'{kb5 . 5fkf] lbPsf]5 eg]uf8dn w]}ug{kb} . of]afnLnf0{ l;Ff0sf]TotL cfjZos kb} t/ cfjZos ePdf l;Ff0 lbbf pTkfbg a9\5 .

/fu, sL/f / ltgsf]lgoGq0f
lk8fm'afnLdf vf;}/fu sL/fsf];d:of ePsf] kf0b} . cf];Lnf]hUufdf kftsf]89'jf /fu nfu]sf]kf0G5 . of]/fu nfudf 8f0yg Pd $% ljiffbL @ ufd k|t ln6/ kfgLdf ld;f0 5gk{b5 . kft vfg]sL/fn]b'v lbPdf yfof8g @ ld=nL k|t ln6/ kfgLdf ld;f0 5sg'kb5 . v'd] sL/faf6 arfpg hldg tof/L ug{anfdf @) lsnf]dfnfyfog w'nf]k|t x]6/ hUufdf 5g'{ kb5 .

pTkfbg
lk8fm'/f]k]sf]^) b]lv &) lbgkl5 lsgf/af6 cfPsf]kft 8f7 ;lxt x6fpg'kb5 . o;/L kft x6f0lbgfn]ufgf]7'nf]x'G5 . @ j6f dfq kft afsL /fVg]u/L c? a/fa/ x6fpg' kb5 . lk8fm'/f]k]sf]& b]lv * dlxgf kl5 pvNgsf]nflu tof/L x'G5 . ;fwf/0ftof ! x]6/ hUufdf !@ b]lv !% 6g ufgf]pTkfbg x'G5 .

*n]vs, s[if ljsf; dGqfno l;xb/af/df s[if lj1sf] kbdf sfo{t x'gx'G5 .

s[if k|jlw k|;f/df :yfgLo Pkm=Pd=/]8of]sf]el'dsf

✍ %mnsgfy s8]n*

kl/ro
cg';Gwfgaf6 ljsl;t ePsf s[if k|jlwx?nfO{ s[fs ;dIf k¥ofpg ljleGg dfWod / tl/sfx? ckgfpg]ul/G5 . To:tf dfWod / tl/sfdWo] dVotof JolQmut tl/sf, ;fdl'xs tl/sf / cfd ;Dks{tl/sf kb[5g\eg]tL tl/sfsf nflu ljleGg dfWodx? k|ofu ul/Psf]kfOG5 . h:tf] JolQmut e]63f6, 6]nkmf]g ;Dks,{ tl/sf k|bzg{, glthf k|bzg{, kfi]6/, kDKn]6, kqklqsf, 6]nlehg, /]8of] cflb .

/]8of]cfd ;+f/sf]Pp6f ;zQm dfWod xf]. o;nfO{dgf]/~hg lbg] ;"-;lrt ug]{ ljleGGf ljifodf lzIff k|bfg ug]{/ s'g}g s'g} ?kdf dflg;x?nfO{k|efj kfg]{ zlQmzfnL dfWodsf]?kdf lnOG5 .

s[if k|;f/df /]8of]nfO{cfd ;Dks{/fVg];fwg dflgG5 . cfw'lgs hLjgdf o;/L /]8of] sfo{qmdn]Pp6f cxd\el'dsf lgjfx{ u5{. To;/L g}k|;f/ lzIffdf klg o;sf]cToGt ;sf/fTds el'dsf xG5 . s[Gb|o:t/af6 k|;f/0f x'g]/]8of]n]b]z]el/sf]nflu k|;f/ lzIffdf el'dsf v]g]ePklg :yfg ljzi]fsf]pTkfbg Pj+ahf/Ls/0fsf]k|jlwnfO{;d]6g g;Sg] cj:yfn]ubf{:yflgo ?kdf :f+flnt ;fdbflos Pkm=Pd=/]8of]x?n]:yfg ljzi]fsf]k|jlw / ;d:ofx?nfO{:yfgLo efiff / zn]Ldf k|:t't ug]{x'gfn]oL /]8of]x?sf]el'dsfx?sf]:yfg emg dxTjk0f{dflgG5 .

/]8of]sf]Ok{txf;
oxfF/]8of]g]kfnb]lv xfn :yfgLo :t/df :yfkgf eO{k|;f/0f ul//x]sf Pkm=Pd= /]8of]sf] af/]df ;H+fKt Ok{txf;sf]af/]df pNn]v ug'{ af~5lgo b]lvG5 .

;g\!*(% df dfsf]g{Ln]tf/ lagf g}cfjfhnfO{ nfdf]b"/L;Dd k|;f/0f ug{;lsg]k|0ffnLsf] ljsf; u/]. o;nfO{g}ljZjdf /]8of]sf] cfljZsf/sf]?kdf lnOPsf]5 . xfnsf]/]8of] k|;f/0f dfsf]g{Lsf]cfljisf/sf]ljsl;t ?k dflgG5 .

/]8of]g]kfn ;jk{yd lj=;=+@))# ;fn dl+;/ dlxgfdf cf/De ePsf]xf]. hxflgof /f0ff zf;gsf]cGTo ug]{p2]Zon]lj=;=+@))^ ;fndf lj/f6gu/df Ps cfsfzjf0fL s[b|sf]:yfkgf ul/Psf]lyof]. lj=;=+@))& ;fn dl+;/ @* ut]laxfg ;f9]* ah]PsfPs Pp6f k|;f/ ;'lgof]-æof]g]kfn k|hftGq /]8of]xf]. xfdL la/f6gu/ dlQm df]rf{af6 af]n/x]sf 5f}+.Æ la/f6gu/ cf;kf;sf If]qx? / ef/tsf sxL If]qx?df ;'Gg ;lsg]of]/]8of]n]@))& ;fnsf] /f0ff lj/fwL ;3if{;+fngsf]k|d'v el'dsf vn]sf]lyof]. @))& ;fnsf]qmflGt aGb ePkl5 pQm /]8of]s[b|nfO{sf7df08f]sf]l;+b/af/ kl/;/df NofO{@))& ;fn rq] @) ut]/]8of] g]kfndf kl/0ft ul/Psf]xf].

g]kfndf lj=;=+@)%@ ;fn b]lv Pkm=Pd= /]8of] ;]jf z? ePsf]xf]. xfn Pkm=Pd= /]8of]sf] ;¥of lbg k|tlbg a9g]qmd hf/L 5 . xfn g]kfndf :yfgLo Pkm=Pd= /]8of]sf];¥of $)$ klu;s]sf]5 .

/]8of]af6 s[if sfo{qmd
lj=;=+@)!* sflQ{sdf /]8of]g]kfndf s[fsx?nfO{

s[if k|jlwaf/]; 'r'gf k|;f/0f ug{p2]on]Ps PsfO{sf]:yfkgf ePsf]kfOG5 . o;}a]nfb]lv g}g]kfndf /]8of]af6 cf]krfl/s ?kdf s[if sfo{qmd k|;f/0f ePsf]xf]. To;a]nf xKtfsf] rf/ k6s s[if sfo{qmd k|;f/0f ul/GYof].

/]8of]g]kfnaf6 k|;f/0f x'g]s[if sfo{qmd b]z e/L g}k|;f/0f x'g]ePtf klg b]zsf]efu]af]ns cjl:ylt, xfjfkfgLsf]ljljwtf, v]tLkftL nufpg] ;dosf]km/skgfn]ubf{k|efjsf/L?kdf s[if k|jlw s[fs ;dIf k¥ofpg g;s]sf]kfOG5 . /]8of]g]kfnsf]s]Gbo k|;f/0fsf]olx l;ldttfnfO{ ;Dafwg ug{]lx;fan]:yfgLo Pkm=Pd=x?n] :yfgLo cfjZostfnfO{;Dafwg x'g]u/L cf–cfkm\gf]:yfg ljzi]fsf]s[if sfo{qmd k|;f/0f ub{cfO/x]sf 5g\.

:yfgLo Pkm=Pd= /]8of]sf] ;an kIf /]8of]cfd ;+f/sf]Pp6f ;zQm dfWod xf]. k|jlw k|;f/df o;nfO{cfd ;Dks{/fVg] ;fwg dfGg ;lsG5 . t;y{s[if k|jlw k|;f/df :yfgLo Pkm=Pd= /]8of]sf]lgDgfg';f/sf sfo{df ;an e'dsf lgjfx{ ug{;Sb5 . lg/If/ s[fsx? ;dIf k|alw k¥ofpg]Ps dfq e/kbf{]/ k|efjsf/L dfWood g}/]8of]xf].

- ★ Pkm=Pd=/]8of]n]k|;f/0fsf]nflu Pp6f ljzi]f Ifq]nfO{nlIft u/]/ sfo{qmd pTkfbg / k|;f/0f ub5{, h;n]ubf{tL Ifq]sf dflg;n] ;xh / ;/n efiffdf a'em\g ;Sb5g .
- ★ k|To]sn]/]8of]nfO{Pp6f ljZj;lgo ;'r'gfsf] >f]t dfGb5 / To;sf]cfwf/df l5§}k|efljt x'G5 .
- ★ :yfgLo Pkm=Pd=n]:yfgLo efiffsf];d]t k|ofu ug{ePsfn]gofF k|jlwdf Wofgfsif{df ug,{cle?lr hufpg jf pTk]/0ff hufpg / sfd ug{k]/t ug{dxTjk'0f{e'dsf v]Nb5 .
- ★ :yfgLo Pkm=Pd= >f]tfx? cToGt pT;'stf;fy /]8of]glhs}a:g,]/]8of]cfkm'';F} af]Sg]ePsfn]/ cfhsn t df]afOndf g} Pkm=Pd=sf];'lawf ePsf]x'gfn]klg k|jlw k|;f/df o;n]dxTjk'0f{ofu]ubfg lbg ;Sb5 .
- ★ s[fsx?nfO k/]sf];d:of h:tf]afnLgfnLdf /fu]sL/fsf]k|sf]k, af9L klx/f]cl;gf h:tf b]jk|sf]kaf6 k'u]sf]Ifltsf]af/]df t?Gt ;'r'gf k|jfx ug{:yfgLo Pkm=Pd=n]7'n'f] e'dsf v]Nb5 . h;af6 ;DalGwt lgsfonfO{ ;dfwfgsf]nflu tTsfn sbd rfNg ;d]t ;xofu]u k'Ub5 .
- ★ k|jlwsf]kf6f]eg]sf]pTkfbg dfq x]g . Joj;foLs/0fsf]nflu ahf/Ls/0f klg plQs} cfjZos kIf xf]. :yfgLo Pkm=Pd=n]ahf/ ;'r'gfsf]dfWodaf6 ahf/Ls/0fdf 7'n'f] ofu]ubfg u/]sf]kfOG5 . h:tf]s[if pkhsf] yf]s tyf vbf dNo, pTkfbg :yn, pTkflbt a:t' / kl/df0f h:tf s'/fx? Hffgsf/L u/fpg]xF s[fs, Jofkf/L / pkefQmf ;a]nfO{s]xL g s]xL ?kdf ;xofu]u k'u]sf] b]lvG5 .

:yfgLo Pkm=Pd=sf]l;ldttf

:yfgLo Pkm=Pd=sf]k|z:t ;an kIfx? xF xF}klg s]xL sdhf]/ kIf / l;ldttfx? 5g\.

- ● /]8of];F;F}ljB't cfk'l't{jf Aof6«pknAw x'g h?/L 5 .
- ● k|;f/0f cjlw / ;do k'j{lgwf/Lt x'G5 . To;a]nf s[fsx?n]cGo sfd 5f]8\gkg]{ x'G5 .
- ● :yfgLo Pkm=Pd=x?n] a9L dfqfdf dgf]/~hgfTds sfo{qmd k|;f/0f ubf{s[if k|jlw;F ;DalGwt dxTjk'0f{ljifoj:t' ;d]t w]/}5f]6s/Ldf k|;f/0f ug{]u/]sf]Ps cWoogn]b]yfPsf]5 .
- ● s[fssf cfjZostf cg';f/ ;do ;fk]lfsf k|jlwx? k|;f/0f gug{]/ sltko hfgsf/Lx?

cfjZos geP klg bfxf¥ofP/ k|;f/0f ug{ h:tf sdhf/Lx? b]vPsf 5g\ .

- cWoogn]s]bvfPsf]5 eg]sltko sfo{qmd k|:tf]tfx? sfo{qmd k|:t't L sd bIf 5g\ h;af6 s[fsx?n]ck]Ift kflalws 1fg kfpg ;s]sf 5g\.
- of]Pstlkm{;+f/ dfWod ePsfn]k[7kfi]f0f kfoM c;Dej x'G5 .
- k|jlw k|;f/0fdf k|ofu x'g]sltko kfljlws zAbfjnL / efiff;u+ ckl/lrt >f]tfsf]nflu k|;fl/t ;fdfu|Lsf] s'g}cy{/xb}g .
- Pkm=Pd=/]8of]n] sltko sfo{qmdx? c;fGble{s ;dodf Pp6}sfo{qmd k6s k6s k|;f/0f u/]sf]kfOG5 .

;'emfj

:yfgLo Pkm=Pd=sf]sdhf/Lx?nfO{Go'g ug{ :yfgLo Pkm=Pd=k|;f/0fstfn]lgDgfg';f/sf sxL ;'emfjx?nfO{dgg\ug{xf]eg]>f]tf s[fs yk nfeflGjt x'g]b]lvG5 .

★ s'g}klg /]8of]af6 k|;f/0f x'g]sfo{qmd ;fdfGo hg;dbfosf]nflu x'G5 . Tof] ;dbfo cGtu{ km/s ju{pd/, lnu+, ?lr, Joj;fo Pj+:t/sf dflg;x? x'G5g . o;af6 k|To]s ;dbfonfO{;Gti6 kfg]k|oTg ug{kb5 .

★ s[if sfo{qmdsf]pkefu u|fdLOf ;dbfon] ug{ePsfn]o;sf]ljifo /f]rs Pj+efiffdf ;/ntf x'g' h?/L 5 .

★ kfljlws zAbx? k|ofu ubf{tL zAbsf]cy{ k|i6 alemg]u/L eGg'k5{.

★ dxTjk0f{Pj+a9L pkofuL sfo{qmdx?sf] k|;f/0f cjlw a9fpg].

★ tYodf cfwfl/t /xL ;do ;fGble{s ;fdfu|Lx? k|;f/0f ug{.

★ ljifo ljzi]f1 / :yfgLo cg'ejL s[fsx?;Fu k|ToIf s'/fsfgL Pj+5nkmnsf]Joj:yf ;lxt k|;f/0f ug{.

★ ;DalGwt ljifodf g}1fg ePsf sfo{qmd k|:tf]tf dfkm{ sfo{qmd k|:t't ug{nufpg].

lgisif{

:yfgLo Pkm=Pd=/]8of]dVo ?kdf *# k|tzt hgtf a;f]af; ug{u|fdLOf Ifqdf a9L k|rlnt 5 . u|fdLOf hgtf ax';¥os s[fs 5g\. ltgLx?sf];'rgfsf]e/kbf{/ dxTjk0f{>f]t dWo]Ps Pkm=Pd=/]8of]xf]. Pkm=Pd=/]8of]sf] dfWodaf6 s[if k|jlw k|;f/0f ug{]k|a[Q klg a9'bf]5 . o;sf]k|efjsf/Ltf klg a9'bf]5 Psflt/ eg] csf{t/ k|fo lhNnfx?df Pkm=Pd=k|;f/0f s[]bx? :yfkgf eO;s]sf / x'g]qmddf 5g\. :yfgLo Pkm=Pd= /]8of]x?af6 k|;fl/t s[if sfo{qmd k|efjsf/L ePtfklg dxTjk0f{hfgsf/L, s[if ultljlw / s[if ;dfrf/ clt 5f]6f];do k|;f/0f ug{]Psftkm{eg]csf{ tkm{s[fssf]Jo:t ;donfO{/ ;do ;fk]If k|jlw k|;f/ tkm{Wofg lbOPsf]kfOPg . /]8of]k|;f/0f Ifqq cToGt lj:t[t 5 . o;sf] dfWodaf6 e't, jt{dfg / eljiosf ultljlwx? Pj+pknlAwx? k|:t't ug{;lsG5 . :yfgLo cfjZostf / ;dosf]Vofn ub{s[if;Fu ;DalGwt ;'rgf Pj+hfgsf/Lx? k|:t't u/]df Pkm=Pd=/]8of]n]s[if ljsf;sf nflu s[if k|jlw s[fs ;dIf x:tfGt/0f ug{dxTjk0f{el'dsf lgjfx{ ug{;Sb5 .

-:gftsf]Q/ sfi]f{sf]zfvkqsf]cfwf/df tof/ kfl/Psf] nv _

*nvs, s[if ljefudf s[if k|;f/ clws[t kbdf sfo{t x'gx'G5 .

kmnkmn' / dfgj :jf:y

✍ sfdgf clwsf/L *

kmnkmn' ;]jg dfgj :jf:ysf nflu lgs} nfebfos dflgG5 . k|s[tn]dflg;nfO{:j:y /xgsf nflu rflxg]ljleGg tTjx? ljleGg kmnkmn'x?af6 ljleGg df}dx?df k|bfg u/]sf] 5 . kmnkmn' / ltgLx?sf]:jf:ydf pkof]utf lgDg /x]sf]5 .

cfF

- kmnkmn'sf]/fhf cfFn]:d/0f zlQm a9fp5 .
- sfn]:6]/fn 36fpF5 .
- kfrg zlQm a9fpF5 .
- cfvfsf]tn a9fpF5 .
- SofG;/ /f]S5 .

cgf/

- cgf/sf]h'; s'i6 /fuLsf nflu pkoSt xG5
- cgf/sf]af]s[sf]lelq ;]tf]efu cfpF/ ´f8f kvfnfsf]nflu kmfObfhgs xG5
- :tg SofG;/, kmf]S;f]sf]SofG;/ / kf]:6]6 SofG;/;F n8\g d2t u5{.
- sfn]:6]/fn / pRr /Strfk 36fpg'sf ;fy} /QmgnLnfO{;Gt'ngdf /fV5 .
- cNh]do/ /fusf] lgoGq0f u5{ .

cdnf

- le6fldg l;= sf] ;a}eGbf wgL ;f]t
- sn]hf]sf] nflu ^mfObfhgs xG5 .
- lk;fa gnLsf] ;d:ofx? x6fpF5 .
- skfnsf]rds a9fpF5 .
- z/L/sf]/fuk|t/fwfTds Ifdtfdf j[4 u5{
- skfndf rfofFsf]/f]syfd ug{;xofu u5{
- l6jLsf]/fuL, vf]sL, Pkll8l6sf]/fuLnfO{ kmfObf u5{.

cDaf

- z/L/sf]/fuk|t/fwfTds Ifdtfdf j[4 u5{
- le6fldg l; sf]WfgL >f]t .
- kf]6f;sf]dfqf k|r'/ xG5 h;n]d6'sf] w8\sg / /Qm ;rf/nfO lgoGq0f u5{.
- slAhot / h'sfsf] lgoGq0f u5{.
- kftsf]k|bfu bft b'v]sf]an]f pkoSt xG5 .
- 5fnfsf]/fu, bfFsf]x+f / dw'dxsf]nflu o;sf];]jg kmfObfhgs xG5 .

;l/kmf

- cdg x6fpF5 .
- Kffrg a9fpF5 .
- sn]hf]nfO kmfObf u5{.
- /utnfO{;kmf u5{.

gl/jnsf]kfgL

- gl/jn kfgLsf] k|fs[ts lkmN6/ xf]
- gl/jnsf]kfgL ztk|tzt z'4 xG5, To;n]a] /Qmbfgdf o;sf]k|bfu xG5 .
- gl/jnsf] kfgLdf z/L/nfO{ rflxg] On]S6kfnfO6x? w]/}kfOG5 .
- yfO/f]08sf]/fuLnfO gl/jnsf];]jg /fdf] xG5 .
- z/L/sf] cgfjZos ^of6 sd u5{.
- dw'dxsf] /fuLnfO{ kmfObf u5{ .

:ofp

- sfn]hfg SofG;/ x'gaf6 /f]S5 .
- cNh]do/ /fuLnfO{ ^mfOb]f u5{ .
- h';\n] cgfjZos tfn 36fpF5 .
- kfrg k|ffnLdf ;'wf/ u5{.
- bdsf] /fuLnfO{ nfebfos xG5 .

cfNdf]8

- d6'/ /utdf ;'u/sf]dfqf lgoGq0f u5{
- lbdfudf /Qm ;rf/ a9fpF5 .

sfFsf]

- afysf]/fjuLnfO{hfgL{bVg];d:of sd u5{.
- sfh]6]fh 36fpF5 .
- cgfjZos tfh 36fpF5 .
- kfrg k0ffnLdf ;xofu u5{.
- SofG;/;u n8\g ;xofu u5{ .
- skfnnfO{g/d agfpF5 .
- dw'dx /fusf]lgoGq0f ug{d2t u5{.

Sofga]L

- d[ufhfsf]kTy/L x6fpg ;xofu u5
- o'/Ls Pl;8 / /Qm ;+f/ lgoGq0f ug{ d2t u5{.
- cfvfFsf] nflu nfebfos x'G5 .

Pef]sf8f]

- d6'/ /Qm ;+f/ ;Gt'ngdf /fV5 .
- 5fnfsf] rfpl/g] k|s[of sd u5{.
- lbdfu, cfFvf / d6'nfO{:j:y /fV5 .
- kmf]ns Pl;8 k|r'/ dfqfdf kfOG5 .
- z/L/sf]/fjuk|t/fjwfTds Ifdtfdf j[4 u5{
- kfrg k0ffnLdf ;xofu u5{.
- SofG;/ lgoGq0f ug{ ;xofu u5{.
- pRr /Strfk 36fpg'sf ;fy}/QmgnLnfO{ ;Gt'ngdf /fV5 .

s]f

- skfn g/d agfpF5 .
- /utdf Un'sf]hsf] dfqf a9fpF5 .
- bfFnfO{;]tf]rds lbG5 .
- /QmcNktf sd u5{.
- 5fnfsf]Rofpl/kg 36fpF5 .
- ls/fn]6f]s]sf]7fpdf s]f nufpbf ^mfObf u5{.
- l8k]g /fjuLnfO{/fdf]x'G5 .
- cN;/x? /f]5 .

:6a]L

- tfhf ^mn vfg]ugfn[w]}k6s lk;fa nflu /xg]/fjunfO{/f]syfd u5{.

*n]vs, lh=s[lj=sf= emfkfdf jfujfgL clws[t kbdf sfo{t x'gx'G5 .

;Gbe{;fdfu|

- AICC publications
- Internet

s[if Joj;foLs/0fdf b]lvPsf];d:of / ;dfwfg

✍ /fh]zdfg s=];L=*

g]kfn Ps s[if k|wfg d'n's sf] ?kdf lrlgG5 . b]zsf]bO{ltxfO{hg;Vof s[ifd}lge/{ 5 eg]cem}klg s'n hg;VofdWo]^^ k|ltzt lx:;f s[ifd}cfwfl/t /x]sf]5 . t/ s[if Ifqdf ljBdfg k/Dk/fut v]tL k0ffnL, pTkflbt s[if j:t'nfO{ahf/ kxFsf];d:of, s[if k]zfdf nfUg]x?nfO{;Ddflgt b[i6sf0fn]gx]g{kj[Q tyf s[if Ifqdf ;/sf/sf]Gog nufgL / k[yldstf h:tf sf/0fx?n]ubf{dflg;x? s[if Ifqaf6 qmdzM ljd'v xF}u/}s[if Ifqtkm{cfslif{ x'g yfn]sf 5g\. h;sf]kl/0ffd:j?k d'n'sleq} k|z:t /f]huf/Lsf];Defjgf af]s]sf]s[if Ifqtkm{ cfsif0{f 36b}uPsf]/ /f]huf/Lsf]ljsNksf ?kdf jb]lzs /f]huf/LnfO{/f]lg yflnPsf]5 . h;n]ubf{d'n'saf6 k|Tos jif{nfvf}sf];Vofdf g]kfnLx? ljb]zL/x]sf 5g\/ of]qmd hf/L 5 . o;/L d'n'sdf phf{zLn >dzlQm ljb]zLg]qmdn] ubf{oxfFsf]s[if el'd klg qmdzM phf8 aGb} uO/x]sf]5 .

clxn]g]kfnsf]s'n e"efudWo]s[ifof]lo el'd s/La !* k|ltzt dfq /x]sf]tYofÍn]b]vfPsf] 5 . cGoqsf]s'/f 5f8f}sf7df8f}pkTosfdf ;d]t clxn]a9bf]zx/Ls/0f;u}s[ifof]lo el'd gi6 xF}uO/x]sf]5 . ljzi]fu/L clgolGqt ?kdf ejgx? lgdf0{f ug]{qmd tLa|ePsfn]s[ifof]lo el'd gi6 xF}uO/x]sf]lj1x? atfpFg\. sf7df8f} pkTosfdf clxn]jif{gL !) xhf/ gofF3/x? ylkg]u/]sf]tYofÍ 5 . olb oxL ultdf zx/L ljsf;sf]gfddf clgolGqt tj/n]ejgx?sf] lgdf0{f xF}hfg]xf]eg]cfpFf]s]xL jif{eq} s[ifof]lo el'd ;dfKt eO{l;u}pkTosf s]qm6 hu}ndf kl/0ft x'g]lrGtf lj1x?n]JoQm u/]sf 5g\.

o;/L x/]s jif{s[if hldg cltqmd0f al9/x]sfn] d'n'sdf vfB ;s6 klg a9b}uO/{x]sf]5 . kl/0ffd:j?k s]xL bzs cl3;Dd vfBfGg lgof{ ug]{d'n's clxn]vfBfGgsf]nflu k/lge/{ aGb} uPsf]5 . g]kfnn]clxn]jif{gL xhf/f}dl6s 6g ux'Fds,} rfdn nufotsf cTofjZos vfBfGg a:t'x? cGoqaf6 cfoft ub}{cfO/x]sf] 5 . o;f]x'g'sf]k|d'v sf/0f s[if Ifqdf /fHon] kofK{t nufgL ug{g;s]sf]/ s[ifnfO{cy{Gqsf] d?b08sf]?kdf dfGg g;s]sfn]g}xf]eGg]7x/ lj1x?sf]/x]sf]5 . o;/L Psftkm{s[if of]lo hldgdf ejgx? lgdf0{f ug]{qmd tLa|?kdf al9/x]sf]5 eg]csf]{km{hnjfo' kl/jt{g / df}dL x/]km/]sf sf/0f g]kfnsf]s[if pTkfbg 3l6/]xsf]lj1x? atfpFg\.

To;f]t g]kfndf of]hgfj4 ljsf;sf]yfngL ePsf]klg ;f9]% bzs gfl3;s]sf]5 . lj=;=+ @)!# ;fndf ePsf]k|yd k~rjifL{o of]hgfsf] yfngL;F}g]kfndf of]hgfj4 ljsf;sf]yfngL ePsf]xf]. t/ lj8Djgfsf]s'/f s]5 eg]olt nfdf]cjlw kf/ ul/;Sbf klg s[if IfqnfO{ cfwlgsLs/0f ug{;lsPsf]5g . of]hgfs}s'/f ubf{;ftf}k~rjifL{o of]hgf;Dd s[if Ifq /fHosf] klxnf]k[yldstfdf k/sf]lyof]. t/ To;kl5sf] s'g}klg of]hgf cjlwdf /fHoaf6 o; Ifqn] k[ydLstf kfpg ;s]g . /fHoaf6 of]Ifq nueu pk]Ift cj:yfd}/x\of]eGbf km/s kb]g . clxn] cfP/ d'n'sdf oqf]/fhgLlts kl/jt{g eO;Sbf klg s[if Ifqdf $ k|ltzteGbf a9L ahG] ljlgof]lht x'g ;s]sf]5g . cem pb]s nfUbf] s'/f t s]5 eg]rfn' cfly{s jif{sf]ahG]n] ;d]t s[if IfqnfO{vf;}k[yldstf lbPsf]b]lvb]g . x'g t rfn' cfly{s jif{sf]ahG]df s[ifdf cfwfl/t ;xsf/Lx?sf]kj4{g ug]{3fi]f0ff ul/Psf]

5 t/ To; sf]nflu cfjZos :ki6 gLlt af/] ah{df sxL+s t}pNny ePsf]kfO{g . jf:tjdf s[lif Ifdf a9\bf]pTkfbg nfut 36fpg, pTkfbg a9fpg, d'gfkmf j[4 Pjd\ s[lif Ifdf cfd'n kl/jt{gsf nflu s[lifdf ofGqsLs/0f ug'{cfjZos 5 . t/ s[lif hldgsf]o;/L vl08s/0f e0/x}sf] 5 ls o:tf ;–;fgf 6qmf hldgdf ofGqs/0f ug'{klg ;Dej xfb}g . csf{tk{m{ g]kfndf l;Ff0sf] /fdf]Joj:yf 5}g, dnsf]cfkl't{/fd/L x'g ;ls/xsf]5}g eg]s[lif ahf/sf]Joj:yfkg klg Tolt ;xh 9+uaf6 x'g ;ls/x}sf]5}g . kf|Kt hfgsf/L cg';f/ g]kfndf clxn]jflif{s ;f9]# nfv 6g dn rflxG5 . t/ g]kfnL s[lfsx?nfO{ rflxg]cfjZos /f;folgs dn, aLp / s[lif pks/0fx?sf]cfoft / ;xh pknJwtfdf ;/sf/n] Wofg lbg g;Sbf s[lif Ifdq w/fzfoL aGb}uO/x}sf] lj1x? atfpF5g\.

o;/L dh'sleq}kl:t cyf{kfh{gsf];Defjgf af}}sf]s[lif Ifdqsf]Jofj;foLs/0ftkm{oyf]lrt Wofg glbOPsf]/ /fhuf/Lsf]ljsNksf ?kdf j}b]lzs /fhuf/LnfO{dfq /fHhg yflnPsfn] dh'saf6 jif{gL nfvf}g]kfnL o'jfx? /fhuf/Lsf nflu ljb]lzg]u/}sf 5g\. ha ls vf8L dh'sf phf8 d?el'd eg]g]kfnL o'jfx?sf]>d / kl;gfn]x/fe/f aGg vfHb}5g\. tyflk g]kfn ;/sf/, s[lif ljsf; dGqfnon]s[lif j:tx?sf] ahf/f]dv pTkfbgdf kf]{;fxgsf nflu egL ljleGg sfo{qmdx? cl3 ;f/}sf] 5 . dGqfnon] gfkmfdh'ns tyf ahf/f]dv pTkfbgdf s[lfs ;dx' tyf ;xsf/LnfO{;xof]u ug]{qmddf g]kfnsf @% lhNnfx?df o; lsl;dsf sfo{qmdx? ;+fng ug{nfu}sf]hgfPsf]5 . tL lhNnfx?df ;DefJotf cg';f/sf s[lif pTkfbg j:tx?sf]kj¢g ul/g] atfOPsf]5 . pQm sfo{qmd dWodf~rnsf wgLff, dxf]Q/L, ;nfxL, /f}tx6, af/f, k;f{lrtjg, sfe|] sf7df08f}+ nlntk'/ / wflbË klZrdf~rnsf gjnk/f;L, ?kGb}L, slknj:t', kfNkf, :of^hf, sf:sL, tgx}Fndh Ë, dWoklZrdsf bfË, afF8]

alb{of, ;'v]{ tyf ;b'/klZrdsf s}nfnL / s~rgk'/df ;+fng x'g]hgfOPsf]5 . h; cg';f/ dWokxf8sf !) / t/fO{sf !% u/L hDdf @% lhNnfx?df ;f]sfo{qmd nfu"x'g]alemPsf] 5 . ;fy};f]sfo{qmd cGtu{ Jofj;flos s[lifsf nflu kf|jlws ljsf;, dfgj ;+fwg, k'/fwf/ tyf ;+fng ;DaGwL cTofjZos ;ljwf pknJw u/fOg] klg hfgsf/Ldf cfPsf] 5 . lgZro klg ;/sf/n];+fng ug{nfu}sf]oL sfo{qmdx?nfO{:jfutof]o dfGg'kb5{ . t/ s[lif Ifdqsf]Jofj;flos ljsf;sf nflu oL sfo{qmdx? dfq kof{Kt x'g ;Qm}gg\. o;sf]nlfu s[lif Ifdqdf ljBdfg cj/fVvx? sd ug{;/sf/n]ljzf]if /0fgLlt g}agfpg' kg]{b]lvG5 . o;sf]nflu s[lif ;DaGwL clxn}sf]gLlt tyf sfo{qmdx?df klg k'/fjnf}sg ug'{kg]{vfFf]b]lvPsf]5 . dVo s'/f clxn}sf];Gbe{df s[lif Ifdqdf b]lvPsf] xf;f]dv cj:yfaf6 s[lfsx?nfO{tTsfn /fxt lbnfpg ;xsf/L s[lifsf]cjwf/0ff cl3 ;fg'{g} afG5gLo x'g]b]lvG5 . o;sf]nflu s[lfsx?sf] ;dx' agfP/, ;xlnot b/df C0f kpfg ub{5 Plss[t ?kdf kzkfng / v]{L ug{df kf]{;fxg ug{kg]{cfjZostf b]lvG5 . ;fy}g]kfnL ls;fgx?n] klg ca ;a}lsl;dsf]afnL nufpg'sf];f6f] Ps}lsl;dsf]afnLsf]v]{L ug'{pkoQm x'g] b]lvG5 . o;sf]nlfu df}d / hldgsf]k|sf/ x]/] h'g 7fpF8f h]afnLsf nflu cg'sfn xG5 To;}sf]v]{L ug{]k{m{s[lfsx?sf]Wofg k'Ugkg{] b]lvG5 eg];/sf/n]klg o; sfo{df s[lfsx?nfO{ kf]{;fxg ug{sf nflu pkoQm kf|jlws 1fg / jftfj/0f agfOlbg' kg]{b]lvG5 . olb of]k4lt ckgfpg]xf]eg]dh'sdf xfn b]vf kl//x}sf] vfB ;+s6sf];d:of w/]}xb;Dd Go'gLs/0f x'gfsf];fy}s[lif Ifdqnf0{Jofj;foLs/0f ug{df klg dxTjk'Uf{;3fp k'Ug ;Sg]b]lvG5 .

*n]vs, g]kfn lj1fg tyf k|jlw k|1f k|ti7fg -gf:6_ df kj{vg clws[t kbdf sfo{t x'gG5 .

h]6L=P= / a9L cfdf M s[if aLdf u/f}

✍ ;kgf af:tf]nf*

h]l6=P=M cfxf], cfdf gd:sf/ Ü ;Gr}xg'xG5 <

a9L cfdf M gd:sf/ afa'Ü a9]zsfn nfUof] s];Grf]s]la;Grf]eGg'< l7s}5' eGgk¥of], lx8'8'n u/]s}5'.

h]l6=P=M To:t}t xf]lg cfdf, clg cfh slt sfdn];D‰mg' ef]t <

a9L cfdf M cfhef]n of]s[if aLdf eg]sf]w/]} ;lgG5 . gfn]af]nfu]sfn]s]/Ü5 ;f¥x}hfGg dg nfUof], To;n]cfPsf]lg afa'.

h]l6=PM w/]}/fdf]s'/f a‰g cfpg'ePsf]/x]5 cfdf . jf:tjdf s[if aLdfsf]af/]df x/]s ls;fgnfO{hfgsf/L xg'kb5 .

a9L cfdf M nf}g t afa' of]s[if aLdf lsg ug]{ s;/L ug]{/fd/L atfOlbg'k¥of] .

h]l6=PM s[if k]zf eg]sf]kfs[ts ¿kd} hf]vdoQm Joj;fo xf]. To;n]s[if Ifqsf] o:tf hf]vdx¿nfO{Go'gLs/0f ug{sf nflu s[if ljsf; dGqfnosf];xofu / ;dGjodf aLdf ;ldltn]@)^(df3 ! utb]v nfu"xg] u/L afnL tyf kzkG5L aLdf lgb]zg, @)^(hf/L u/]sf]5 cfdf . To;n]ca s[fsn]cf^gf] afnL, df5f, kG5L tyf kz'wgsf]aLdf u/L cf^gf]k]zf / nufgL ;'/lIft ug{;Sg]5g\. s[if aLdf u/]kl5 obL tf]lsPsf] sf/0faf6 afnL, df5f, kG5L tyf kz'wgsf]Iflt xg uPdf Ifltkl't{kfOG5 lg cfdf .

a9L cfdf M Tof]t a‰m]afa', clg sg sg afnLsf]aLdf ug{;lsg]xf]< To;sf nflu slt /sd nfU5 < Tof]klg t atfOlbgk¥of] lg .

h]l6=P=M n ;'Gg'; x}t cfdf, afnL cGtu{t wfgafnL, cfn', t/sf/L / kmnkm'n nufot kzkG5L / df5fsf];d]t aLdf ug{;lsG5 . ;/sf/n]afnL, df5f, kG5L tyf kz'sf]5§f5§} aLdfÍ /sd klg tf]s]sf]5 . To;cg';f/ afnLdf k|t afnL aLdfÍsf]%Ü, kz'df k|t jif{%Ü, kG5Ldf k|t ;dx' ^Ü, / df5fdf @Ü aLdf zNs ltgk{5{. clg csf]s'/f lg cfdf, aLdf zNssf]%)Ü /sd ;/sf/n]Joxfg]{ Joj:yf ;d]t e}s]sf]5 .

a9L cfdf M P Ü xf]/ afa'< clg s:tf s:tf sf/0faf6 Iflt ePdf Ifltkl't{kfOg]xf]< clg slt Ifltkl't{kfOG5 t afa'<

h]l6=PM ;/sf/n]k|To]s afnL, df5f, kG5L tyf kz'wgsf]5§f5§}aLdfÍ /sd klg tf]s]sf] 5 . obL aLdf cjlwleq kfs[ts k|sf]kx? h:t}cfunfuL, r6\ofª\ e'sDk, af9L, 8'afg, v8/L, klx/f], e"vng, cfWLax/L, cl;gf, lxpF jf t'iff/f]af6 Iflt ePdf . To:t,} cfsl:ds ÷b36{gfhGo xfgL gf]S;fgL tyf /fu sL/faf6 xfgL gf]S;fgL xg uPdf aLdfÍ /sdsf]()Ü /sd aLdf u/]sf ls;fgn]Ifltkl't{:j?k kfpg] Joj:yf 5 .

a9L cfdf M P , aLdf zNs klg cfwf dfq lt/] k'Ug], km/L sg}sf/0faf6 afnL tyf kz'wgsf] Iflt ePdf Ifltklt{klg kfOg]of]s[if aLdf t uha /x]5 lg afa'. a? of]s[if aLdf ug{

s]s]ugkg]/x]5 t < dnfO{t Tof]klg ;f¥X} hfGg dg nfUof].

h]l6=PM gcflQg'; g cfdf, d ;a}s'/f atfOxfN5' lg . klxn]tf]lsPsf]z tx{? k'/f u/L k|:tfj ^mf/d e/] cf^gf]Joj;fosf]aLdf u/fpgkb5{ . t/ o;/L aLdf ubf{k|:tfj ^mf/dsf];fydf ;DalGwt k|fljlwssf]k|dfOfkq ;d]t k]z ugk{b5 .

a9L cfdf M clg of];DalGwt k|fljlws eg]sf] rflx+s:nfO{eg]sf]lg <

h]l6=PM k|fljlws JolSt eGgfn]afnL aLdfsf] xsdf s[if ;]jf s[]b|jf dfGotf k|Kt lzIfOf ;+yfaf6 s[if ljifodf cfwf/e"t 1fg xfl;n u/L ;DalGwt lgsfoaf6 ;f];DaGwdf sfo{ ug{Ohfht k|fKt JolSt xf]eg]kzkG5L aLdfsf] xsdf rflx+kz';]jf s[]b|pks[]b|jf e6]/Lg/L h]l6=, h]l6=P jf u|fdLOf kz'kG5L :jf:Yo sfo{stf{jf dfGotf k|fKt lzIfOf ;+yfaf6 kz'kG5L lrlsT;f÷kz'kG5L lj1fg ljifodf cfwf/e"t 1fg xfl;n u/L ;DalGwt lgsfoaf6 ;f];DaGwdf sfo{ug{Ohfht k|fKt JolStnfO{ elgPsf]xf]cfdf .

a9L cfdfM P Ü s'/f To;f]kf]xf]afa'< To;f] eP ca cf^gf]aLdfsf]/sd bfaL ug{sf]nflu s]s]ugk{g]/x]5 t< Tof]klg hflg/fvf]Fg Ü

h]l6=PM cl3 elgPsf h'g;'s}sf/Ofaf6 klg df5f jf kG5Lsf]xfgL gf]S;fgL ePdf & lbgleq / wfg, cfn', t/sf/L, kmnkm'n / kz'wgsf] xsdf eg]!% lbgleq jf ;f]cjlwleq ;+ej gePdf ;f]sf]sf/Of ;lxt cfjZos sfuhftsf] ;fydf aLdf sDkgLdf ;Dk{s ug{kb5 .

a9L cfdfM aLdfsf]/sd bfaL ug{sf]nflu rflx+ s:tf s:tf sfuhftx?sf]cfjZos k5{g\t afa'<

h]l6=PM o;sf]nflu k'Of{?kn]el/Psf]bfaL ^mf/d, ;DalGwt k|fljlwssf]k|ltjlbg, ;Ssn aLdfn]v / g=kf=÷uf=lj=;÷j8fsf];hk{dg d'rNsf jf df5f, kz'wg / kG5Lsf] xsdf sDtLdf ;a}eGbf glhssf]@ hgf l5d]sLsf] ;hk{dg d'rNsf rflxG5 cfdf .

a9L cfdfM s[if aLdf eg]sf]t ls;fgsf]nflu lgs}dxTjk'Of{kf]/x]5 . aNn cfh afa'n] eg]kl5 yfxf kfPF ca d klg hlt;Sbf]l56f] cf^gf]afnL tyf kz'wgsf]aLdf u/]/ 9Ss xG5'. clg ufpF3/df klg o; af/];a}nfO{ hfgsf/L lbG5'.

h]l6=PM l7s eGg'eof] cfdf tkfO{n] .

a9L cfdfM cfxf]Ü 5n^mn ubf{ub{lgSs}a]/ kf] eP5 . nf}ca t lg:sg k¥of]Sof/] .

h]l6=PM xG5 lg t cfdf, sxL k¥of]eg]cfpg';\ g .

a9L cfdfM cfOxfN5'lg afa', nf}/fd/L a:gf];\ x}t .

xl/z/Ofd\Ü

*n]vs, s[if ;'rgf tyf ;+f/ s[]b|xl/x/ejgdf s[if ;+f/ clws[t kbdf sfo{t xg'xG5 .