

2.2 ou mRikndrk

fogxkoykdu

gekj ouk dh mRikndrk fo'o e fuEure e l ,d g tk of'od vkl r 2-1 ?ku ehVj@g-@ifr o" k dh ryuk e 0-7 ?ku ehVj@g-@ifro" k gA Hkkjr e ou jki.k fo'o dh ou tul[;k dk 17 ifr'kr g ijr budh mRikndrk 1-0 ?ku ehVj@g-@ifro" k g tk fd cgr de gA blh idkj Qke df" k rFkk df" k okfudh d v/khu jki.kk dk mRiknu mruk vf/kd ugh g tk fd vU; n'kk dh mRikndrk vkdMk l ey [kk ld&bl dk e[; dkj.k x.koYkk jki.k l kexh dh vuiyC/krk gA Hkfe rFkk ou l lk/kuk dk lgh oKkfud ic/ku] e[; r; igkMk ij] fo'k" k ouk dh mRikndrk vko'; drkvk dk iklr dju rFkk nh?kdkyhu l j{k.k dju d fy, vfr vko'; drk gA

Tkul[;k e of) rFkk c<rh gb tul[;k dh vko'; drkvk dh ifr d fy, ou l lk/kuk dk vfr nkgu rFkk ektnk l lk/kuk l Hkh vf/kd nj rd b/ku dh ydMh] pkjk bR; kfn dh ifr ugh dh tk l drhA rnulkj df" k okfudh dk i.kkyh dk lgh ekiu e ykdfi; cuku dh vko'; drk g ble dkb lng ugh fd bl idkj dh i.kkfy; k Hkkjr e tkuh tkrh g rFkk Lej.kkrhr le; l igpkuh tkrh g rFkk lkj n'k e fofHkUu rjhdK l ijijxR : lk l vulj.k dh tkrh gA ijr bld ikjfLFkfrd] to Hkkfrd rFkk lkekftd vkfFkd igyvk d lnHk l fgr le>u vkj iyf[kr dju dh vko'; drk gA

; |fi ekuo tfur jki.kk dh thfork cgr de g] lEcFu/kr fo" k; k d fy, e[; dkjd tk l kckU; r% y{; k }kj fy, tkr g] jki.kk dh LFkkiuk d nkju p; fur jki.k LVkd dh x.koYkk d Åij iR; {k : lk l vfrØe.k djr gA jki.k y{; k dk gkfly dju d fy, jki.k LVkd dh x.koYkk d bl rF; dk udkj dj le>krk dj fy; k tkrk g fd

fdlh dh jki.k dk; Øe d ihN dh lQyrk ik/k'kkyk LVkd dh x.koYkk gA gkykfd] jki.k gr LVkd p; u d fy, egRoi.k o{k i tkfr; k d ekey e dN vdkjdh; ijkehVj fu/kkfjr g fdr y{; k dk gkfly dju d fy, okfNr ik/kk dh l[; k iklr dju gr budk ikyu ugh gkrk gA okLro e n'k e ou ik/k'kkykvk e NVkb dh i) fr fojy gh viukb tkrh g tk vU; Fkk of/kr mRikndrk d fy, jki.k dh cgrj LFkkiuk vkj mPp mYkt hforrk ifr'kr iklr dju d fy, lcl egRoi.k ?kVd gA vr% ik/k'kkyk voLFkk e ijkehVj d ekudhdj.k d fy, ik/k'kkyk e fd, x, ijh{k.kk d ifj.kke vdjk dh x.koYkk d fy, ekud fu/kkfjr dju e lgk; rk dj l drk gA

Oku vf/kd lQyrk iod iu: Riknu dj l dr g tc iutuu dk c<ku d fy, fo'k" k i; k l fd, tkr gA ; k rk df=e iutuu fd; k tk, ft le jki.k cht ; k vdjk dk mi; kx fd; k tk, ; k rk ikdfrd iutuu fd; k tk, tk ektnk vdjk ; k cht k ij fuHkj djrk gA

Okudhj.k dk; Øek dh iHkkoh ; ktuk rFkk dk; kUo; u lgh 'kkjhfd rFkk vkuokf'kd x.kk d lkFk mi; Dr ek=k e gj le; cht k dh miyC/krk ij fuHkj djrk gA loiFke cht vkuokf'kd : lk l iekf.kr lokRd"V lkr l ,df=r fd, tku pkfg, A nljk cht k d Hkkfrd rFkk 'kkjhfd x.kk d ijh{k.k d }kj yxkrkj tkp gkuh pkfg, A vr e ; g egRoi.k g fd cht k dh tud{kerk rFkk 0; ogk; rk dk [kk, fcuk tc rd vko'; drk u gk Hk.Mkfjr fd; k tk, A xtjkr ou foHkx u jki.k Hk.Mkj l/kkj dk; Øe d v/khu /ku cht LVM p; fur fd, A db cht mRiknu {k= vdj cht m|ku rFkk lh , l vk LFkkfir fd, gA



cht ;|fi jki.k LFkkiuk rFkk mud ic/ku dh ijh dher dk ,dekeyh lk Hkkx yr g fQj Hkh mudh ukdkQh vkifr jki.k Hk.Mkj d mRiknu e fofHkUu l/kkj d lkeu vDl j ,de[; ekx voj/k d :lk e fn[kkb nrh gA

bu lHkh igyv k dk /;ku e j[kr g, Hkk-ok-v-f'-k-i- dN vulU/kku ifj;k tukvk d }kjk i.k/kkfj;k dk fo'k" uhfr l>ku dk i;k l dj jgh gA

ou cht iek.khdj.k ,t lh d mi;kx d fy, >kj[k.M dh vkfFkd :lk l egRoi.k ou i tkfr;k ij cht vkdMk vk/kkj r;kj fd;k x;k gA jktLFkku l ,df=r cht k rFkk xt jkr d fofHkUu cht l rkr l ,df=r MYcft;k flll rFkk ,df'k;k dVp ij cht vdj.k v/; ;u fd;k x;k gA

tuhijl ikyhdkil e cht ,df=r d lgh le; d tkuu d fy, ijh[k.kk d vdj.k vkdM l Kkr gvk fd uoEcj dk nljk l lrg cht ,df=r dju d fy, lokŸke le; g gkykfd] QjDlhu l ,Fkk tkbykbM d ekey e vDVcj dk nljk i[kokMk lgh le; gA

tuhijl ikyhdkil d cfj;k e ueh 26-69% tcf d cht k d ekey e ;g 9-20% gA QjDlhu l ,Fkk tkbykbM e lekjk e ueh dh ek=k 8-28% rFkk cht k e 8-22% gA

tuhijl ikyhdkil d cht k dk xk; d xkcj e Lrjhdr fd;k x;k rFkk bu g [ky x<k e 60 fnu dh vof/k d fy, lfn;k e j[kk x;k u 70% vdj.k fn[kk;k tcf d fu;f=r ¼vui pkfjr½ cht k u doy 40% vdj.k fn[kk;kA gkykfd QjDlhu l ,Fkk tkbykbM d ekey e cht dk fuf'Ø; rk l ckjg fudyu dk lcl vPNk mik; fxcdfjyd ,flM Fkk ¼1500ih ih ,e½A

gok cn] uehj/kh ikyhld dVuj jQjhtfjV voLFkk e de rkieku v/khu ¼<5°C½ lokŸke Hk.Mkj.k dVuj rFkk cht nh?kk; cuk, j[ku d fy, tuhijl ikyhdkil d cht Hk.Mkj.k d

fy, lokŸke Hk.Mkj.k okrkj.k ik;k x;kA bl voLFkk e Hk.Mkfjr fd, x,A cht k u ,d o" d lk'pkr 70% 0;ogk; rk rFkk <kb o" d lk'pkr 55% 0;ogk; rk fn[kkb tcf d vU; Hk.Mkj.k dVuj@ Hk.Mkj.k okrkj.k u cht 0;ogk; rk e dkQh fn[kkbA blh idkj QjDlhu l ,Fkk tkbykbM d cht k dh nh?k vk; d fy, gok cn] uehj/kh ikyhld dVuj jQjhtfV voLFkk e de rkieku v/khu ¼<5°C½ lokŸke Hk.Mkj.k dVuj rFkk Hk.Mkj.k okrkj.k ik;k x;kA bl voLFkk e Hk.Mkfjr fd, x, cht k u ,d o" d ckn >80% rd 0;ogk; rk rFkk <kb o" d ckn >70% 0;ogk; rk tcf d vU; Hk.Mkj.k dVuj@Hk.Mkj.k okrkj.k u cht 0;ogk; rk e deh fn[kkbA

okfudh cht iek.khdj.k ,t lh d fy, >kj[k.M dh vkfFkd :lk l egRoi.k i tkfr;k ij vkdMk vk/kkj cuku d fy, 20 i tkfr;k d Hkkfrd rFkk 'kkjhfd ijehVjk] 'k)rk] cht vkdkjhd ¼yEckb] pkMkb] igy vuikr] jx bR;kfn½ l fgr vdj.k rFkk Hk.Mkj.k 0;ogk; dk v/; ;u fd;k x;kA

>kj[k.M] fcgkj rFkk if'pe cxky e dnEc rFkk ley dh ikdfrd tul[;k rFkk jki.kk ij lpuk ,df=r dh xb rFkk 70 dfMMV /ku ofk vfHkKkr fd, x,A nkuk gh i tkfr;k d fy, Dykuh; io/ku i)fr;k fodflr dh xbA

ic/ku i.kkfy;k d }kjk >kj[k.M e [kuu@vf/kd ck> okyh enk d enk dkc rFkk ukbVktu vf/kxg.k {kerk dk c<k;k x;kA rfeyukM e enk ueuk dk ,df=r fd;k x;k rFkk mud ik" k.k Lrj dk tkuu d fy, fo'y" k.k fd;k x;k rFkk vk" k/kh; ikni ;Fkk&,Lijx/l jlhckll] fMdyhfll gfeyVkuh] gehMlel bfMdl dk jkfir fd;k x;kA bu iknik dk ofk i tkfr;k d lkFk vrj Qly d :lk e yxk;k x;kA if'peh jktLFkku d ftyk dh enkvk e ukbVktu rFkk QkIQkj l dh deh ikb xbA lEi.k e



46% enk jryh nkeV] 29% nkeV jryh] 20% jryh]
3% jryh fpduh nkeV rFkk 0-5% fpduh nkeV FkhA

vf/kd Hkkj okyh dk; y dh [knku l enk
ueu ,df=r rFkk fo'yf'kr fd, x, A vfr Hkkj okyh
enk dk oehdEikLV rFkk gjh [kkn }jkj iufufer
djd pkj o{k i tkfr; k d l kFk ik= ijh{k.k i; kx
fd; k tk jgk gA v dj.k {kerk rFkk of) d l c/k e
i tkfr; k dk in'ku jkph e fjdKM fd; k x; k gA

rfeyukM e pkj LFkyk&dMkykj]
th; kedkMe] lEckuj rFkk lnjkb e dTokfjuk
bfDo l hfVQkfy; k] dTokfjuk >?kgfu; kuk rFkk
; dfy l deYMyuf l l dk jkfir fd; k x; kA

nk v/; ; u LFkyk t l m".kdfVc/kh; ou
vulU/kku lLFkku dk vk , l vkj i; kxRed LFky
rFkk tcyij fty e uhe[kMk xke e fd l kuk d [kr
e vk , Q vkj d : lk e vkuyk dk vjgj rFkk vnjd
d l kFk vr% Q l y d : lk e mxkdj cgQ l y h r=
LFkkfir dju d fy, p; fur fd; k x; kA

jkbfv; k fVdVkfj; k vkj ch vkj rFkk
eyhuk vkckfj; k jkDc dk o{k i tkfr; k d : lk e
df'k okfudh ekMyk dk fodflr dju d fy, , d
ifj; k tuk dk; kflor dh xb gA

vk; kMhu d l kFk lglEcu/k LFkkfir dju d
fy, df'k enk e ih, p eY; rFkk vkxfud dku rRo
d vk/kkj ij ck; k&QkjVhfQd'ku d fy, lefdr
ik"kd icU/ku d v/khu df'k okfudh vk/kkfjr [kk]
mRikn e x.koUkk rFkk mit l/kkj fo'y" k.k fd; k
x; kA

egRoi.k df'k okfudh itkfr; k d }jkj
[kjirokj d mRiknu d vkdyu l Kkr gvk fd
xfo; k vkifVok] ekjl vYck] lfyV l vkLVfy l]
cgfu; k ofj; kxkVkj Vuk flfy, vk rFkk , Ychft; k
fpuuf l l fofHkuu dM d v'kk d }jkj lkykuk
[kjirokj d fxju e egRoi.k kHkfedk fuHkk r k gA

jkj.k okfudh d fy, ioh Hkkjr d n'kt]
rho of)] cgmnn'kh; o{k d eY; kdu d fy,
lefdr j.kuhfr fodflr dh xb gA

ou mRiknd rk

m".kdfVc/kh; ou vulU/kku lLFkku d
i; kx'kkyk {k= e ck l vk/kkfjr df'k okfudh r= dk
LFkkfir dju rFkk e/; in'k rFkk N'kh l x< d fofHkuu
xkek d fd l kuk e tkx: drk ink dju d fy,
rkfd og ck l dk viU [krk e yxk, d fy, nk ck l
i tkfr; k cEc l k U; VU l rFkk MUMkdye l fLVdV l
dk p; fur fd; k x; kA

ck l d fy, mPp df'k jki.k d fy,
fØ; kdykik d idt fodflr dju d fy, i; kx
fd, x, gA fd l kuk dh l [; k d vulkj
m'Ykj thfork nj rFkk of) in'ku rFkk vk l r yEckb
ij vk dM {k= ijh{k.k e , df=r fd, x, A ck l d
fy, mPp df'k jki.k d fy, fØ; kdykik d idt k
d l R; kiu d mnn'; d Hkkx d : lk e Øe'kh
Qjoj] flrEcj 2010 rFkk tuo]h 2011 d nkju
xkok ou fohkx ¼ th , Q Mh½ vk/k in'k ou fodk l
dk i j'ku ¼, ih , Q Mh l h½ rFkk dukVd ou fohkx
¼ d , Q Mh½ d vf/kdfj; k dk ck l ogn i l kj rFkk
okuLifrd io/ku ij if'k {k.k fn; k x; kA

df'k fØ; kdykik d }jkj ijkg mRiknu
vof/k c<ku rFkk p; fur ck l i tkfr; k d [kk]
ijkg mRiknu dk c<ku d fy, v/; ; u fd, x, gA

jkph] ykyxVok rFkk QkjLV j t l dkyt
enkj e m'Ykd lo/ku rFkk Dyku; uky io/ku d
}jkj cEc l k U; VU l] MUMkdye l , Lij rFkk
MUMkdye l fLVdV l d ch ih , l dk mxk; k x; kA
Hkfe d vk/k gDV; j e jki.k dk mxk; k x; kA

>kj [k.M LFkyk d NkV ukxij iBkj dh
fuEuhdr feVVh e fodfr dh idfr rFkk voLFkk
rFkk o{k of) d fy, ifrc/kd rRok dk vUof'kr
fd; k x; kA {k= d fy, mi; Dr i tkfr; k dk t k p
x; k rFkk bu enkvk d iu l l/kkj d fy, j.kuhfr
fodflr dh xbA

o"kk ty l p; u] ouhdj.k rFkk j {k.k d
mi; kx u enk ty ik"kd rRok] 'kkdh; i tkfr; k dh
l [; k rFkk to it dk c<kdj fuEuhdr igkfM; k d
iu:) kj e lgk; rk dh gA bld vfrfjDr ogk
dku LVkd rFkk ty] pkj rFkk b/ku ydMh dh
miyC/krk e of) gb gA



0;kikfjd mRiknu d fy, de EkY; okyh le) oehdEikLV fodflr dh xba ,d LFkbb de eY; okyh oehdEikLVx ,dd ,Q vkj lh enkj e LFkbfir dh xb g tgg uhe fVfd;k] djt dh fVfd;k] QkIk cDVhfj;k] xk e= rFkk exh [kkn l le) oehdEikLV mRikfnr dh xb gA

fetkje rFkk e?kky; e df"ok okfudh ic/ku rFkk eY; lo/ku d }kjk ifjR;Dr >e Hkfe e mRikndrk c<ku d fy, i;k l t l mi;Dr T;kferh; ic/kuk d lFk oj;rk iklr o{kk rFkk Qlyk d lFk LFky ij{k.k fd, x,A

dkcu fuEuhdj.k rFkk vkt hfodk fodkl d lnhk e cEc l k ckydvk dk >e Hkfe d iu:)kj d fy, {kerkoku ckl itkfr d :lk e vfHkfyf[kr fd;k x;k gA

>e lfrg v: .kkpy in'k d rhu fofHku ty lHkj.kk e fofHku Hkfe mi;kx fØ;kdykik d v/khu mRikndrk lcf/kr ijkehVjk dk vkdyu fd;k x;kA

lpd itkfr;k dh igpku d fy, ikp ou bykdk d v/; ;u l Kkr gvk fd VDVkuk xfm l yfu;k dkjkeUMfydk] ,ukx l l iMyk] jkbVh;k fVudVkfj;k rFkk Vh- xfm l Øe'kh culokj] jkt lken] ikyh] ikyuij rFkk lcdk/kk ftyk e i/kku itkfr;k gA

QkbDI cxkyf l l] QkbDI dh lcl vke itkfr g tk fd lkuk }kjk Qly r= e i'kvk d fy, pkjk rFkk NKV idk'B d fy, j[kh tkrh gA ek.M;k ftyk] dukVd e ijeijxrk QkbDI vk/kkfjr df"ok okfudh r= d ikjflLFkfrd] vkfFkd rFkk lkekft d&lLdfrd eY;kdu d fy, ek.M;k fty e lkr rkydvk e yxHkx 200 ,dy fd lk rFkk 16 xkeh.kk dk lo{k.k fd;k x;kA

vkj b Vh itkfr;k d 60 gtjk vdjk %eyhuk vkckfj;k] iVhfj;k dki l l Vkyhul xfm l rFkk lVye ,yce½ dk fd lkuk rFkk i.k/kkfj;k e ckVu d fy, mxk;k x;kA

e/; in'k d nk df"ok tyokoh; lHkxk e t ,Q ,e {k=k e vk"kh; iknik d /kkj.kh; ic/ku

ij v/; ;u fd;k x;kA ckjg y{; itkfr;k e l lgkyhpjk f=txk] Vehuyh;k vtuk] lfiuMl ykjhQkfy;k] Vehufy;k phcyk] ,yckel d l ekLdVI] jkokfYQ;k liUVhuk] ,Ecyhdk vkQflufyl rFkk eDoh l kil ,fyxh e io mipkjk l vdj.k ifr'krrk e of) gb gA

if'peh dk;yk {k= fy- d dkUgk {k=] if'peh dk;yk {k= fyfeVM d f'koih {k= rFkk tukjfm;k rFkk fip {k=k e lo{k.k d vk/kkj ij] i;kx d fy, dk;yk [kku ncko LFky d p;u d fy, f'koih vkiu dkLV ekbu&1] i;kx d fy, p;fur dh xba

nonkj rFkk ou vkd d i;kxRed jki.kk dk xgurk l [krk e ikf"kr fd;k x;k g rFkk fgEkky; ou vulU/kku lLFku }kjk ik lfxd vkdM fu;fer :lk l vfHkfyf[kr fd, x,A okbyfMx d }kjk jki.k lQyrk vHkh Hkh ,d iphnik ekeyk gA ifj.kke mR l kgo/kd ugh g rFkk okLrfodrk dk tkuu dk i;k l fd;k tk jgk gA o"k 2008&09 rFkk 2009&10 d nkju Hk;dj vdky d lk'pkr de cQckjh rFkk o"kk yEc ik/kk dh LFky voLFk e cgr vf/kd ek=k e erR;rk dk c<kok nxhA

fgekpy in'k d f'keyk rFkk lkyu ftyk e nonkj rFkk ou vkd d ik/k'kkyk d fofHku vkdkjd; ijkehVjk d vkdyu d fy, LFkbfir i;kxRed LFky vPNk in'ku ugh dj l d D;kfd o"k 2008 rFkk 2009 d nkju xfe;k e yxkrkj vdky t l h n'kkvk d lk'pkr de o"kk rFkk cQckjh gb ft l d ifj.kkeLo:lk nonkj rFkk ou vkd i;kxRed d jki.kk e cmh ek=k e erR;rk gb ft le ueh dk erR;rk d fy, l fØ; rRo crk;k x;kA

ikjfeHkd of) vkdMk u lfr fd;k fd eyhuk vkckfj;k lHkh v/; ;u LFkyk ij vPNk in'ku dj jgh g rFkk LFkkiuk d rhu o"kk d Hkhrj 250 l-eh- dh vklr Åpkb iklr dj yh g] ;lfi ,lk vueku yxkuk cgr tYnck th gkxh] fQj Hkh ;g fuEu igkfM;k e Hkfo"; e jki.k d fy, {kerkoku itkfr;k gk l drh gA

e/; in'k e rn iYkk d vkdkj e of) ij mojdk dh fofHku ek=kvk] ,dy ;k leg e iHkko



dk voykfd r dju d fy, ekjxk e jk;k;fud
mojdk d Qkyk; j fNMdko ij i;kx fd, x,A

fo" k; d v/khu ifj;k tuk,i

ifj;k tuk,i	i.k dh xbi ifj;k tuk,i	tkjh ifj;k tuk,i	o" k d nkjku ikjHk dh xbi ubi ifj;k tuk,i
lyku	18	40	25
ck°; lgk;rk iklr ifj;k tuk,i	9	9	9
dy	27	49	34

2-2-2- ou lo/ku

mYkj[k.M d nonkj] diy] Qj rFkk Li:l ouk
ei gfjr iru ij ifrc/k dk iHkko

mYkj in'k dh ljdkj u ¼rc mYkj[k.M]
mYkj in'k dk Hkx Fkk½ fgeky; k e 1000 eh- Åpkb
d Åij gfjr iru ij 80 d n'kd d ikjHk e
ifrc/k yxk fn;k FkA 1980 l igy fgeky; d
'kd/kkjh ou] dk; ;ktuk dh fu/kkfjr ou lo/ku
rdudh d v/khu txyh igkMh Hkfe FkA ;g ou
jffkr ikru d fy, ou foHkx }kj k xkeh.kk dh
idk" B vko'; drkvk dk ijk dju d fy, icf/kr
fd, x, gA lhmI nonkj] ikbul oyhfp;kuk]
ikbd l LehFkkuk rFkk ,ch l fiMjk ou e gfjr ikru
ij ifrc/k d iHkko dk voykdu dju d fy, dil
e mYkj[k.M e ckjg LFkyk dk p;u fd;k x;k Fkk
ftUg ikru d fy, fu/kkfjr fd;k x;k Fkk yfdu
ikru mu dil e ugh dh xb tdk iru okLro e
fd;k x;k FkA itkfr;k dh mifLFkr rFkk
dEikVeVl fgLVht d vk/kkj ij mYkj[k.M ou
foHkx dh lgk;rk l unk noh ¼ijkuk cnjhukFk
iHkx½] mYkjdk'kh rFkk pdjkrk ou iHkx vkdMk
,d=hdk d fu, p;fur fd, x,A
ikni&fofo/krk] o{k of)] iutuu Lrj] ouk d
fudV jgu oky yxk dh lkekftd vkfFkd voLFkk
rFkk fxjk, rFkk u fxjk, g, dil l enk vkxfud
dkcu] enk ueh rFkk enk ik"kd rRok ij vkdM
,df=r fd, x,A

;g voykfd r fd;k x;k fd fxjk, x,
dil dh ryuk e u fxjk, x, dil e >kM;k rFkk
vk"kf/k;k dh ikni fofo/krk mPp FkA ; lfi fxjk,
x, dil e o{k fofo/krk vf/kd voykfd r dh xb]
D;kfd ikru d nkjku dukih d [kyu d dkj.k
mUur iutuu Qlyk dh mifLFkr FkA fxjk, x,
dil e cglLdfr itkfr;k voykfd r dh xb ijr
u fxjk, x, dil e dN cM iYkk okyh itkfr;k
t l vkd] ei y] Hkk t i=] cjk'k bR; kfn Hkx ykHkdkjh
ekbØ&tyok;oh; n'kkvk d dkj.k 'kd/kkjh
itkfr;k l lcf/kr FkA

fxjk, x, rFkk u fxjk, x, dil e lHk
pkj dkfuQj itkfr;k d of) LVkd rFkk mRikndrk
egRoi.k : lk l fhkUu ugh FkA fxjk, x, dil e
lHk vk; legk e lkekU; iu:Riknu iofr n[kh
xbA u fxjk, x, dil e cgr de iu:Riknu n[kk
x;kA iu:Riknu u fxjk, x, dil e enk
[kjirokj dh /kheh vi?kVu nj d dkj.k iHkfor gA
u fxjk, x, dil e enk vkxfud dku rFkk enk
vkxfud eVj dh ekU;rk, cgr mPp ikb xbA ;g u
fxjk, x, dil e enk vkxfud eVl dh /kheh
vi?kVu nj d dkj.k FkA enk ueh u fxjk, x, rFkk
u fxjk, x, dil d e/; egRoi.k vrj ugh
fn[kk,A

xkeh.k ftudh vktfhodk ikru dk;k ij
vk/kkfjr Fkh] vktfhodk dh [kk t e lhek {k=k l
iokl ij py x,A dN 0; ofLFkr yx gfjr ikru
d i{k e FkA lhek xkeh.kk dh vf/kdk'k tul[; k
bl rF; d lkFk fd dkfuQj ou mud ?kj rFkk
df" k ;kX; [krk dk vkinkvk l cprk g] ikru d
i{k e ugh FkA

mYkj[k.M vkj fgeky py in'k d nonkj] diy]
Qj vkj Li:l ouk ei gfjr ikru ij ifrc/k d
iHkko ij v/; ;u ¼ou vu l U/kku l lFkk d
lkFk fgeky; u ou vu l U/kku l lFkk dh ,d
lg; kxh ifj;k tuk½

lcf/kr lEHkxh; vf/kdkfj; k d dk; kyk; k l
v/; ;u LFkyk l lcf/kr vk/kkjHk l puk ,df=r
dh xb rFkk pEck] f'keyk] dYy ftyk e ouk dh
foLrr v/; ;u d fy, igpku dh xbA igpku x,



उकखज जत दय्य ?कवह द इनक फज;कल ओ
ए नोनकज LVM

ftyk d pEck] pkiy rFkk dYy ou foHkkxk e
vkjfhkd lo{k.k fd, x, rFkk lcf/kr jtk e
dEikVeV bfrgkl Qkbyk l ouk dh vk/kkj Hkr
lpuk@C;kj ,d= fd, x,A bld vulkj v/; ;u
d fy, LFky dYy ou iHkkx dk ukxkj 'kk[kk] pEck
ou iHkkx e Ajh pEck rFkk pkiy ou iHkkx dh
pkiy jt p;fur dh xBA

fjikV d v/khu o"k d nkjku flyoj] Qj
rFkk Lil ouk d lkFk injk fj;k l ou {k= rFkk
Cyikbu rFkk nonkj ouk oky u'kgkyk Cykd
foLrr v/; ;u d fy, vUof"kr fd;k x;kA gkykfd
jx d v/;{k] Jh fou; VMu] Hkk-o-l-] i-e-o-l-]
fgekpy in'k u e[; :lk l lpr fd;k fd ou
foHkkx] Hkkjrh; ou ic/ku lLFkku ¼vkb vkb ,Q ,e½
Hkkiky d lkFk] leku mnn'; dk ydj ,d
ifj;ktuk ij igy l gh dk; dj jgk gA mijDr
dk nf"V e j[kr g, lLFkku u ifj;ktuk dk
fuyfEcr dj fn;kA

yEc i knik }kjk nonkj ¼ l hM l nonkj ½ jki .kk
dk yxku d fy, rduhd dk fodkl

bl lLFkku d {k= vulU/kku LV'ku d
lehi] ftyk f'keyk e f'kyk : e fLFkr ,d LFky dk
nonkj idr uoknfHknk dk i;kx dj d iFkn'kh
Ldy i;kx d fy, p;fur fd;k x;kA bld
vfrfjDr i;kxRed mi;kx d fy, idr uoknfHknk

d NKVu d fy, {k=k dk lo{k.k rFkk igpku dh
xBa itfkr;k d yEc idr uoknfHknk dk mi;kx
djr g, vxLr 2008 rFkk Qjoj 2009 dk nonkj
d i;kxRed jki.k r;kj fd, x, rFkk bl vxLr
2009 rFkk 2010 dk ngjk;k x;kA idr uoknfHknk
dk yEckb rFkk ey dkyj 0;k l d vk/kkj ij jkfir
fd;k x;kA idr uoknfHknk dk [kr e NKVr rFkk
jkfir djr g, Hkh tM vukoj.k d le; rFkk tM
'k"du l j{k dkjd inkFk d le; ij Hkh i;kx
fd;k x;k rFkk ,lk gh idr uoknfHknk d fu"d".k
rFkk LFky e l h/k jki.k d le; Hkh fd;k x;kA

ik/k'kkyk D;kfj;k e nonkj dh miyC/krk d
vulkj ekp 2009 d nkjku v/; ;u ikjEHk fd;k
x;kA fnlEcj 2009 d nkjku nonkj d ch t Hkh
ik/k'kkyk e ck, x, rFkk ik/k'kkyk e vxrj
vulU/kku d fy, Hkyh idkj l ikf"kr fd, x,A
ik/k'kkyk e mxk, x, vdjk dk nk QhV dh Apkb
ikr dju d lk'pkr ik/k'kkyk volFkvvk e vxrj
of)] fodkl rFkk lrfyr dju d fy, vkv d ckj
;k lyfLVd dh ckfYV;k e ifrjkfir dj fn;k x;kA
ifrjki.k d nkjku NVkb djr rFkk tM vukoj.k
le; e Hkh i;kx fd;k x;k rFkk idr uoknfHknk d
l h/k jki.k d le; e Hkh tM 'k"du l j{k inkFk dk
leku :lk l mi;kx fd;k x;kA

i;kxRed jki.k dk cMh xgurk l [krk e
ikf"kr fd;k x;k rFkk ik lfxd vkdM fu;fer :lk
l vfhfyf[kr fd, x,A idr uoknfHknk d }kjk
jki.k l Qyrk vHkh Hkh ,d vkykpukRed fo"k; gA
vHkh Hkh ifj.kke mRlkg o/kd ugh g vkj dkj.kk
dk irk yxk;k tk jgk gA o"k 2008&09 rFkk
2009&10 d nkjku xgu vdky d lk'pkr de
cQckjh rFkk o"kk u LFky volFkvvk e cM ieku ij
erR;rk dk c<kok fn;k gA gkykfd i;kxk dk
vxLr 2010 e fQj ngjk;k x;k rFkk idr
uoknfHknk u dkQh l Qyrk gkfly dh g gkykfd
[kk tk dk doy ,d xeh d ckn gh if"V dh tk
l drh gA

yEc i knik dk ik/k'kkyk e cM ik=k t l
ckfj;k lyfLVd d ik=k e mxkuk vHkh ixfr ij gA
ik/k'kkyk e ty xk mipkj d lkFk ckfj;k e yEc



iknik ij i; kx dk dk; ikjHk fd; k x; k ga vr miHkkDrkvk fo'k'dj fgepy in'k ou foHkkx ¼, p ih , l , Q Mh½ d [krk e dk; dju okyk d fy, 15 Qjoh 2011 dk ou if'k{k.k lLFkk] py] ftyk lkyu fgepy in'k e **ik/k'kkyk e yEc iknik dk mRiknu ¼ fo'k; rFkk fprk,** ij ,d if'k{k.k&l g&l oknkRed dk; Øe vk; kft r fd; k x; kA



ik/k'kkyk e yEc nonkj d ofkk dk ik'k.k



ik/k'kkyk e yEc ik/kk d mRiknu ij if'k{k.k

nonkj ¼ l hM' l nonkj k ½ vkj ou vkd ¼ Doi d'k Y; idkV' bdkQkj k½ d i k/k'kkyk LVkd d i vdkjd h; , o i 'kkj hfj dh; x i . koYkk ijkehVjk; dk fu/kkj . k

Øe'k½ ekMy ul jh] f'keyk vkj f'kyh ul jh] lkyu e nonkj ¼ 5000½ rFkk ou vkd ¼ 20000½ d ik/k'kkyk LVkd dk mxkdj ikf'r fd; k x; kA fgepy in'k jkT; ou foHkkx dh 35 ik/k'kkykvk dk

Hke.k fd; k x; k rFkk {k= dk; drkvk l ik/k'kkyk yxku rFkk nonkj rFkk ou vkd ik/k'kkyk LVkd e viuk, x, x. koYkk ijkehVjk d ckj e lpuk , df=r dh xbA vxLr 2008&09 d nkjku N½ LFkyk ij iR; d i tkfr d fy, rhu] bu i tkfr; k d vdkjd h; ijkehVjk d vk/kkj ij i; kxkRed jki.k yxk, x, A nonkj rFkk ou vkd d ik/k'kkyk LVkd d vrfje U; ure ekudk dk fodfl r dju d fy, jkT; ou foHkkx ¼ fgepy in'k½ d foHkUu nonkj rFkk ou vkd ik/k'kkykvk e ogn lo{k.k fd, x, A fojpr l k{kRdkj rFkk i'ukoyh d }kj k lo{k.k fd; k x; k ft l bl mnn'; d fy, fodfl r fd; k x; k FkA ; g ik; k x; k fd jkT; ou foHkkxk dh ik/k'kkykvk e nonkj rFkk ou vkd dh ik/k'kkyk LVkd x. koYkk d ekiu d fy, doy , d ijkehVj viuk; k x; k g t l ik/k'kkyk LVkd dh yEckb ¼ ijg yEckb½ A bl d vul kj LVkd dk jki . k d fy, lgh ?kkf'r dj fn; k tkrk g ; k m l x. koYkk LVkd d : lk e MYyf[kr dj fn; k tkrk gA ; fn yEckb uk ; k bl l vf/ kd gk tM dkj j 0; k l] mRiknu r= dk idkj ¼ Fkyk ; k uxh tM½ vk;] jki . k {k= dh LFky voLFkk] x. koYkk LVkd dk jki . k d fy, p; fur dju d fy, egRoi . k gkrh g] ij oreku e fopkj ugh fd; k tk jgk gA {k= fopkj foe'k d vk/kkj ij vx fopkj foe'k rFkk vfre : lk nu d fy, nonkj rFkk ou vkd d ik/k'kkyk LVkd gr vrfje U; ure ekudk dk iLrko fd; k x; k ga

lkfj; k tuk dk n l jk mnn'; iklr dju d fy, o'k 2008&09 d nkjku ou vkd rFkk nonkj d ik/k'kkyk LVkd dh xFMx d vk/kkj ij ckº; jki . k fd; k x; kA i; kxkRed LFky tk fd fgepy in'k dh f'keyk rFkk lkyu ftyk e fLFkr u 2008&09 d nkjku cgr de cQckjh@o'kk iklr dh] bl d mijr xje e yxkrkj l [k dh fLFkr cuh jgh ft l d ifj. kke Lo: lk nonkj rFkk ou vkd d ik; kfxd jki . kk e Hkkjh eR; rk gbA vr½ 2010 dh o'kk _ r d nkjku ckfj; k e nonkj rFkk ou vkd d ik/k'kkyk LVkd d vdkjd h; xFMx d vk/kkj ij



fiFkkj|x< ou foHkkx e pkj LFkyk e
fMi~~y~~kduek C;Vhjf'k;k d cht ,df=r fd, x,A
cht ijkehVj] vkjfhkd vdj.k{kerk] cy] chtk dh
'k"du lonu'khyrk dk v/;;u fd;k x;kA
Hk.Mkj.k v/;;u d fy, chtk dk pkj ueh Lrjk t l
30%] 25%] 20% rFkk 15% rd 'k"d.k fd;k x;k
rFkk 'kf"dr chtk dk pkj rkiekuk ;Fkk&dej d
0;kid rkieku] 15°C l] 10°C l rFkk 5°C l ij
Hk.Mkfjr fd;k x;kA cht nh?kt hforrk dk 30 fnu
rd c<k;k tk l drk ga ¼ikyh cx ¼Fkyk½ e vdjk
dh vPNh of) ¼yEckb] dkyj 0;k l] cy½ voykfdr

,ukthll yVhQkfy;k d ifjiDork lfp;k
ifjekf.kr dh xb rFkk cht lpyu ikVdky
fodflr fd;k x;kA vdj.k rFkk Hk.Mkj.k ikVdky
Hkh fodflr fd;k x;k; k ijr bl dh rn:Lr cht k l
if'V dju dh t:jr gA i tkfr;k d cht k e 90%
l vf/kd fjDrrk voykfd dh xBA fodkl'khy
volFkk e dhVk }kjk Qyk l jl dk pl k tkuk Hkh
fjDrrk dk ,d dkj.k irhr gkrk g ftld fy,
v/;;u tkjh g rFkk dhMk dh igpku rFkk fu;=.k
d fy, dhV jkx foKku iHkkx] ou vulU/kku
lLFkku d lg;kx l ;k tuk cukb xb gA



m".kdfVc/kh; ou itkfr;k dh mudh
ifjiDork rFkk Hk.Mkj.k l: lcf/kr cht 'kjhj
foKku

ckjg yf{kr itkfr;k e l LDyhdhjk Vkbtxk]
Vehukfy;k vtuk] lfiuMI ykjhQkfy;k]
Vehufy;k phcyk] ,cykekldl ekLdVI]
jkMokyfQ;k liUVhuk] ,Ecfydk vkfQf'kufyl
rFkk feelkll ,yUxh d chtk dk iomipkj }kjk
vdj.k ifr'kr l/kjk x;k gA vU; itkfr;k dk
io mipkj dh dkb vko';drk ugh Fkha 'k"du
lgu'khyrk rFkk cht Hk.Mkj.k 0;ogkj d fy,
v/;;u lgyhpjk f=txk] Vehufy;k vtuk]
gkMfofd;k fcukVkj ekfjxk vkyhQjk]
gkykiVfy;k bVhxhQkfy;k] lfiuMI ykjhQkfy;k]
Vehukfy;k phcyk] ,cykekldl ekLdVI]
jkMokyfQ;k liUVhuk] ,Ecfydk vkfQf'kufyl]
cfl;k yVhQkfy;k rFkk feelkll byhxxh ij
fd;k x;kA feelkll byhxxh el;orh rFkk
okfl;k yVhQkfy;k mn.Mh ikb xBA vU; itkfr;k
ijijxrk ikb xb rFkk yEc Hk.Mkj.k d fy, j[kh t
ldrh gA Vehufy;k vtuk] gkMfofd;k fcukVkj]
lfiuMI ykjhQkfy;k] Vehufy;k phcyk]
jkMokyfQ;k liUVhuk] ,Ecfydk vkfQf'kufyl]
ckfl;k yVhQkfy;k rFkk ehelkll dk fu;fer
vrjky d lk'pkr 0;ogkfjdrk rFkk Hk.Mkj.k {kerk
d vkdyu d fy, rhu l ikp ueh inkFkk d lkFk
lek;kftr fd;k x;k rFkk fofHkUu rkiekuk ij
Hk.Mkfjr fd;k x;kA 0;ogkfjdrk fLFkjkd pkj
ijijxrk itkfr;k d fy, ;Fkk% gkMfofd;k fcukVkj]
ekfjxk vkyhQjk] gkykiVfy;k bVhxhQkfy;k] rFkk
lfiuMI ykjhQkfy;k d fy, ikDdfyr dh xBA
lokYke Hk.Mkj.k voLFkk, vU; itkfr;k d fy,
fu/kkfjr dh xBA

cht ,d=hdj.k dk le; fu/kkfjr dju
d fy, cht ifjiDork ij v/;;u fd;k
x;k rFkk lgyhpjk f=txk] gkMfofd;k fcukVkj]
ekfjxk vkyhQjk] gkykiVfy;k bVhxhQkfy;k]
lfiuMI ykjhQkfy;k] ,cykekldl ekLdVI]
cfl;k yVhQkfy;k rFkk feelkll byhxxh d fy,
ifjiDork lpd fu/kkfjr fd, x,A jkMokyfQ;k
liUVkbu rFkk ,Ecfydk vkfQf'kufyl d cht i.k

ifjiDork d lk'pkr ,df=r fd, tku pkfg, rFkk
bu itkfr;k d chtk dk vdj.k d fy, idu d
lk'pkr ,d= djuk pkfg,A rhu J.kh d chtk dk
tojklk;fud x.kk] dy olh; ry rFkk dkckgkbMV
l?kVu d fofHkUu J.kh d chtk d lkFk ryuk dh
xBa ;g fu"d"k fudkyk x;k fd rhuk J.kh d chtk
e dkb egRoi.k vrj ugh Fkka ; lHkh itkfr;k
ry le) chtk okyh Fkh %olh; ry l?kVu]
LDyhdhjk Vkbtxk& 45% cfl;k yVhQkfy;k& 51%]
feelkll byhxxh& 31%¹A 12 itkfr;k e l ,d
mn.Mh rFkk nljh dk ijijxrk vfHkfyf[kr fd;k
x;kA bl igy ij dkb fu"d"k ugh fudkyk
tk ldkA

nk egRoi.k m".kdfVc/kh; ou o{k itkfr;k k]
lyhpjk vkyhvk l k rFkk iVhjkdkil ekLfi;e
dh vidj.k bdkfQth;k ykth

lyhpjk vkyhvk l k d chtk ij vdj.k
fQukykt h rFkk 'kkjhfd ilflr ij v/;;u fd;k
x;kA tcyij rFkk e.Myk ftyk l iVhjkdkil
ekLfi;e d vifjiDo rFkk ifjiDo chtk dk
,df=r fd;k x;kA iVhjkdkil ekLfi;e ij cht
ifjiDork dk vdj.k {kerk ij iHkko dk vkdyu
fd;k x;kA

NYkh l x< e lky d ikdfrd iu:Riknu ij
fofHkUu Lrj d cht ,d=hdj.k d iHkko ij
v/;;u

Lkky d ikdfrd i:Riknu ij fofHkUu Lrj
d cht ,d=hdj.k ij v/;;u dju d fy, rhu
df"kyok;oh; lHkxk tl fcykl ij] jk;ij rFkk
NYkh l x< e cLrj e v/;;u fd;k x;kA ek[kVh
/kerjh rFkk cLrj ou iHkxk e l f[;dh fMtkbu d
vul kj ueuk Hk[k.M cuk; x;A

cht d u, yxk, x, vdk d iu:Riknu
lo{k.k QkbVkl k'kkykft dy v/;;u fd;k x;k
rFkk xYe ou lkr vfHkfyf[kr fd, x,A if'ir o{k
fxu x, xMkb] lQkb rFkk vx mipkjk dk i;kx
fd;k x;k rkfd lky d i:Riknu bld iHkko dk
n[kk tk l dA

lky d cht ,df=r fd, x, rFkk mudk Hkkj
rkyk x;kA fxurh dh xBA i;kxRed fMtkbu d



vu l k j c h t k d k l k y o f k k d u h p f n r j k ; k x ; k A
o " k k d l k ' p k r n k c k j k c h t k d u , m x v d j k d k
i u : R i k n u l o { k . k f d ; k x ; k r F k k x Y e o u e y d k
f o f h k U u m i p k j k d k i H k k o n [k u d f y , v f h k f y f [k r
f d ; k x ; k A

x t j k r j k T ; d h e g R o i i . k i i t k f r ; k d i
, l i h , , l @ , l , l v k , l @ l h , l v k @
c h t L V . M k i l i , d f = r c h t k d k c h t
f o ' k " k r k v k i j v / ; ; u

o " k 2010 & 11 d n k j k u 11 i t k f r ; k d c h t
, d f = r f d , x , f t u e l i k p i t k f r ; k 1/61 c h t
l k r k e l ; F k k & , d f ' k ; k d v p d L V M] M Y c f t ; k
f / l l l d 4 d u M h M V / k u o { k] V D V k u k x f u M l d
32 l k r] , u k x k b l l i u M y k d 9 l k r r F k k
, - y v h Q k f y ; k d 7 l k r 1/2 d k v d j . k d f y , i j h f { k r
f d ; k x ; k A , d f ' k ; k d v p d 100 c h t k d k H k k j]
[k [k k f j ; k c h t y k V l 4-50 ± 0-13 x k e] j k t i h i y k c h t
L V M] e k . M o] x k / k j k c h t L V M l 5-66 ± 0-19 x k e f h k U u
F k k A c h t v d j . k e k . M o] x k / k j k c h t L V M 64 ± 3-74 %
f h k U u r F k k d f y ; k x k / k j k L V M e 84 ± 1-83 % f h k U u F k k A

M Y c f t ; k f / l l l d 100 i k M H k k j] Q y o k M h]
j k t i h i y k l h , l v k o { k l [; k & 5 l , d f = r c h t
y k V l 2-11 ± 0-08 x k e l l e k u l h , e v k d o { k
l [; k & 10 e 2-5 ± 0-04 x k e r d f h k U u F k k A i f r ' k r
c h t v d j . k l e k u l h , l v k d o { k l [; k v k 35 % l
o { k l [; k & 10 e 41 % r d f h k U u F k h A

l k x k u d l H k h l h , l v k d c h p y E c k b e U p]
j k t i h i y k e 8-20 e h e h l y d j 11-7 f e e h Q y o k M h
j k t i h i y k r d f h k U u F k h r F k k p k M k b e U p j k t i h i y k
e 8-94 f e e h l y d j 11-38 f e e h e U p j k t i h i y k r d
F k h A e k l e l v i H k k f o r x B y h Q y o k M h] j k t i h i y k e
35-33 x k e d c h p r F k k e U p j k t i h i y k e 51-38 x k e
r d j g h t c f d e k l e l i H k k f o r x B y h e y E c k b]
p k M k b r F k k 100 x B y h H k k j Ø e ' k k Q y o k M h
j k t i h i y k e 8-31 f e e h l Q y o k M h] j k t i h i y k e
9-75 f e e h r d] Q y o k M h j k t i h i y k e 7-77 l e U p
j k t i h i y k e 9-94 f e e h r d r F k k Q y o k M h]
j k t i h i y k e 26-80 x k e l e U p] j k t i h i y k e
39-24 r d F k k A y k D ; y @ x B y h r F k k c h t x B y h e p]
j k t i h i y k e 3-56 l y d j 3-96 e U p j k t i h i y k r d
r F k k 1-08 e U p j k t i h i y k r d F k k A

j k t L F k k u d j k u d i j { k = l 9 l k r k l
, - i u M y k d c h t , d f = r f d ; x ; A l H k h l k r k l i k l r
c h t k d k c h t i j h { k . k i j k e h V j k d v / k h u e 154-50 ±
05-20 l y d j 254-75 ± 18-06 r d f d ; k x ; k c h t k
d h l [; k i f r x k e i k j l j k e e g k n o j k u d i j e f n j
d u t n h d F k h A v d j . k i f r ' k r r F k k v k t r k f y d k
Ø e ' k k 0-80 i f r ' k r r F k k 1-446 1/2 j k u d i j e f n j d
u t n h d 1/2 l 3-48 i f r ' k r r F k k 7-274 1/2 j k u d i j @
j k t e k x 1/2 r d F k h A

, - y v h Q k f y ; k e c h t k d h l [; k i f r x k e
j k u d i j e 146.50 ± 16.54 l y d j 241.50 ± 05.00
r d t h r j k u] j k t l k e n r d F k h A v d j . k i f r ' k r
r F k k v k t l p h d k f u E u r e e Y ; Ø e ' k k
0-175 i f r ' k r r F k k 0-293 t h r j k u e i f { k r f d ; k
x ; k A t c f d v d j . k i f r ' k r r F k k v k t l p h d k
v f / k d r e e Y ; t h r j k u e Ø e ' k 0-917 i f r ' k r r F k k
1-333 n [k k x ; k A

t u h i j l i k y h d k i l l h - d k p v k j Y D l h u l
t U F k k D l h y k b f M l e i c h t l x g . k] c h t
l p k y u] H k . M k j . k v k j c h t i l f l r H k x d j u i d i
f y , d k ; l i) f r d k e k u d h d j . k

i j h { k . k k l i k l r v d j . k v k d M d k t u h i j l
i k y h d k i l e c h t , d = h d j . k d l g h l e ; d k
t k u u d f y , f u d k y k x ; k] l K k r g v k f d u o E c j
d k n l j k i [k o k M k c h t , d = h d j . k d f y , l g h
l e ; g r F k k b l v o f / k e , d f = r c h t k d
40 % v d j . k r y u k e v U ; , d = h d j . k r k j h [k k e
d e v d j . k i f r ' k r i k ; k x ; k A b l h i d k j Y D l h u l
t U F k k D l h y k b f M l e c h t , d = h d j . k d l g h l e ;
d k t k u u d f y , i j h { k . k k d v d j . k v k d M d k n [k k
x ; k] l K k r g v k f d v D V c j d n l j i [k o k M d k
l e ; c h t , d = h d j . k d f y , l o k Y k e l e ; g r F k k
b l v o f / k e , d f = r c h t k d v f / k d r e 26 % v d j . k
d h r y u k e f o f h k U u , d = h d j . k r k j h [k k e d e
v d j . k i f r ' k r i k ; k x ; k A c f j ; k r F k k t - i k y h d k i l
r F k k l k e j l r F k k , Q - t U F k k D l h y k b f M l d c h t k d
u e h r R o k d k i ; k x ' k k y k e i j h r j g l l [k k u d



lk'pkr fy;k x;kA t- *ikyhdki* l d cfj;k dk ueh rRo Øe'k 26-69% rFkk cht 9-2% gA ,Q- tUFkkD/hykMMh l d lekjk dk ueh rRo Øe'k 8-28% rFkk cht 8-22% ifr'kr gA t- *ikyhdki* l chtk d cht dk ilflr l ckgj fudyu dk lokŸke mipkj xk; d xkcj e B.Mk ue Lrjhdj.k gA xk; d xkcj e lfn;k e t- *ikyhdki* l d Lrjhdr chtk dk 60 fnu rd [ky x<< e j[ku l 70% vdj.k vfHkfyf[kr fd;k x;k tcfd fu;f=r ¼vuiPKfjr½ chtk e 40% vdj.k vfHkfyf[kr fd;k x;kA ,Q- tUFkkD/hykFkMh l e cht ilflr l ckgj fudyu dk lokŸke mipkj fxÇcfjfyd vEy 1500 ih ih ,e gA fxccfjfyd vEy d fofHkUu lkn.kk ftldh {kerk 500 l 3000 ih ih ,e l mipkfjr ,Q- tUFkkD/hykMMh l d chtk e 74% vdj.k ftUg fxÇcfjfyd vEy 1500 ih ih ,e l mipkfjr fd;k x;k Fkk tcfd fu;f=r ¼vuiPKfjr½ chtk e ,d egdu dh vof/k e 19% vdj.k vfHkfyf[kr fd;k x;kA

cht nh?kt hfork dk cuk, j[ku d fy, gok cn uehjk/kh *ikyhd* l d ik= de rkieku v/khu ¼<5°C½ jÝhthjVM voLFkk e lokŸke Hk.Mkj.k ik= rFkk t- *ikyhdki* l d chtk dk Hk.Mkfjr dju d fy, Hk.Mkj.k okrkj.k gA bu voLFkvvk e Hk.Mkfjr cht] Hk.Mkj.k d ,d o"k lk'pkr 70% 0;ogkfjdrk rFkk 55% 0;ogkfjdrk Hk.Mkj.k d <kb o"k d ckn Hkh cuk, j[krh g tcfd vU; Hk.Mkj.k ik=@Hk.Mkj.k okrkj.k u cht 0;ogkfjdrk e deh fn[kkb gA blh idkj ,Q- tUFkkD/hykFkMh l d chtk d nh?kt hforrk cuk, j[ku d fy, lokŸke Hk.Mkj.k ik= rFkk Hk.Mkj.k okrkj.k Hkh gok cn uehjk/kh *ikyhd* l d ik= de rkieku v/khu ¼<5°C½ jÝhtht'ku voLFkk e gA bl voLFkvvk e Hk.Mkfjr cht ,d o"k d lk'pkr 80% 0;ogkfjdrk rFkk <kb o"k d lk'pkr 70% 0;ogkfjdrk j[kr g tcfd vU; Hk.Mkj.k ik=@Hk.Mkj.k okrkj.k u cht 0;ogkfjdrk e deh fn[kkbA

ou mRikndrk

okfudh cht iek.khdj.k ,t l h dk y{; j[kr; g, >kj[k.M dh vkfFkd :lk l egRoi.k okfudh i tkfr;k ij cht vkdMk vk/kkj dk l tu

v/; ;u u >kj[k.M dh 20 egRoi.k okfudh i tkfr;k d Hkkfrd rFkk 'kkjhfdh; x.kk ij vk/kkj j[kk d l tu dk ifjdfYir fd;k gA ckjg ftyk e 16 egRoi.k cht lkrk dh igpku] cht 'k)rk] cht vdkjd; ¼yEckb] pkMkb] voLFkk vuikr] jx bR;kfn½ lfr Hkkfrd rFkk 'kkjhfdh; ijkehVjk ij 20 i tkfr;k d cht x.kk] fofHkUu idkj d ik=k rFkk Hk.Mkj.k rkiekuk e vdj.k 0;ogkj rFkk Hk.Mkj.k 0;ogkj voykfd r fd;k x;kA [kk t d ipkj&i l kj d fy, ,d rdudh cyfVu idk'ku Hkh ifØ;k e gA

bl lnhk e v/; ;u egRoi.k Fkk fd yxrkj vfHkKkr lokŸke cht lkrk l mPp x.koŸkk chtk d mi;kx dh odkyr dju d ckt n] tkjh jki.kk dk;Øek e fu;kftr cht] de vdj.k ifr'kr rk] detkj vkfoHkko] detkj mŸkj thfork] LFky d ifr detkj vudyu'khyrk rFkk jxk d ifr vfrlonu'khyrk lfr [kjc x.koŸkk d FkA detkj chtk d mi;kx dk e[; dkj.k ft l l bl idkj dh v l Qyrk fey jgh g cht lkrk d vdj.k rFkk vU; x.kk e fHkUurk l lcf/kr {kf=; okfudh cht vkdMkvk/kkj dk u gkuk gA ou mRikndrk l LFkku] jkph u ifj;k tuk d v/khu cht ijh{k.k rFkk iek.khdj.k ,t l h d :lk e dk; dju d fy, vko';d cfu;knh <kpk r;kj fd;k g tk {k= e okfudh dk;k d fy, ykHknk;d gkxkA ifj;k tuk d v/khu fuEufyf[kr miyfc/k;k Fkh

ckjg ftyk e 16 egRoi.k cht lkrk dh igpku] Hkkfrd rFkk 'kkjhfdh; ijkehVjk ij] cht 'k)rk] cht vdkjd; ¼yEckb] pkMkb] voLFkk vuikr] jx bR;kfn½ lfr 20 i tkfr;k d cht x.kk dk vfHky[ku fofHkUu idkj d ik=k e rFkk Hk.Mkj.k rkiekuk e Hk.Mkj.k v/khu 0;ogkfjdrk] vfHky[ku



}kj k vdj.k 0;ogkj] Hk.Mkj.k 0;ogkj v/;;u rFkk
[kk tk d ipkj&i lkj d fy, ,d rduhdh cyfVu
dk idk'ku ifØ;k e gA

cD l okfyfp;kuk d: tuu n0; l ij{k.k d:
fy, cht rduhd rFkk io/ku rduhd:

eVdxjk Cykd %pdjkrk ou foHkkx½ l
ifjiDork dh fofHkUu voLFkkvk e rFkk dnkjukFk
MCY; ,y , l e eMy ou l ch- okfyfp;kuk d
cht ,df=r fd, x,A chtk dk NkVx x;k vkj 55 l
60 ifr'kr rd cht [kkyh FkA u, chtk e vdj.k
15&20% Fkk vkj og Hkh cgr /khek FkA chtk e
vdj.k c<ku d fy, Lrjhdj.k] fxÇjfyd vEy]
KNO₃, dk;kfdubu io mipkj fd,A chtk u
45 fnuk d Lrjhdj.k ij 63% vdj.k fn[kk;k
tcf d ;g th,₃ l Hkhx chtk %0-02% 24 ?k.V d
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myel oyhfp;kuk] jkokfYQ;k l iUVhuk] ccfj l
,fj l Vkvk rFkk egkfu;k t ku l kjfu l l dk vfHkKkr
fd;k x;k rFkk io/ku lkexh %cht k@dYek@idr
uoknfHkn½ dk mud cgyhdj.k rFkk l j{k.k d
fy, pdjkrk] gfj}kj rFkk ngjknu {k= l ,df=r
fd;k x;kA dVfefD l l cpkjkbm l d idr
uoknfHknk dk lQyrkiod tuun0; xkMu e
LFkkfir fd;k x;kA egkfu;k t ku l kjfu l l rFkk
ccfj l ,fj l Vkvk d tuun0; dk dYek }kj k iof/kr
fd;k x;kA myel ofyfp;kuk d tuun0; dk
pdjkrk rFkk d'ehj l ,df=r fd;k x;k vkj dYek
}kj k ik/kk dk lQyrkiod mRiUu fd;k x;kA

'kkjhfdh; vkj ik'kf.kd ijkehVjk d: fy,
;dfy l l Dykuk dk y{k.k o.ku

'kkjhfdh; ,o ik'kf.kd ijkehVjk d fy,
;dfy l l Dykuk d y{k.k o.ku gr pkj LFkkuk
;Fkk& iMdVvkb] fr : uyoyh] floxxk vkj dk;EcVj e
LFky ijh{k.k LFkkfir fd, x,A NKV x, 30 ;dfy l l
Dykuk d fy, Dykjfdy , ch vkj dy DykjQy
dy iYkh {k=Qy t l ijkehVjk dh x.kuk dh xBA
'kkjhfdh; ijkehVjk rFkk of) ijkehVjk ij voykdu
pkj LFkkuk ij vfHkfyf[kr fd, x,A toit
ifrp;u pkj LFkkuk e ijk fd;k x;k rFkk toit
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fo'y" k.k d fy, ,df=r fd;k x;kA enk ueuk dk
Dykuk dh mRikndrk d lnhk eueh Lrj dk vfHky[ku
dju d fy, ekfld vk/kkj ij nk xgjb;k
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nyHk] ylrk;% rFkk l dVxLr itkfr;k&
eyhuk vkckjh;k] Vjkdki l l UVkfyul rFkk
l UVkye ,Yce ij ik/k'kkyk ifj;k tuk

fd l kuk rFkk vU; i.k/kkfj;k e forj.k d
fy, eyhuk vkckjh;k] Vjkdki l l UVkfyul rFkk
l UVkye ,Yce d l Bgtkj vdjk dk mxk;k x;kA
ik/k'kkyk <kpk t l 'kM gkm l rFkk flpkb r=
fodflr fd;k x;kA

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tku okyk ikni

mYkj[k.M d rhu fty ;Fkk&mYkj[k]k]
pekyh rFkk fiFkkjkx< t gk fglikQkb l yhlhQkfy;k
dh ikdfrd tul[;k feyrh g] dk lof[kr fd;k
x;kA mYkj[k.M e chtk lkrk dh Hkxkfyd jt
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j[kk{k rFkk len rd l Åpkb 1949 l 3212 eh-
,e , l ,y l Åij rd fHkUu gA v/;;u l Kkr gvk
fd pekyh ftyk vU; nk LFkyk l mYke gA pekyh
fty e guekupVv dh cM ieku ij ouhdj.k
dk;Øek d fy, itkfr;k d ikni mxku d fy,
vu'kflr fd;k tk l drk g rFkk vxrj i tuu dk;

ou mRikndrk



d fy, guekupVVh fofHkUu v/;fur of) ijkehVjk
d vul kj 'k" X; k jg ch t l k=k l m'ke gA

i; kx'kkyk voLFkkvk e ,p- l y h / h Q k f y ; k
d ch t v d j . k d fy, 25±1°C l d r k i e k u d k
v u d y u r k i e k u B g j k ; k x ; k A i f j . k k e k l K k r
g v k f d 15°C] 20°C] r F k k 25°C r k i e k u d k c h t
v d j . k i j l d k j k R e d i H k k o g i j r 30°C l r k i e k u
u c h t v d j . k i j u d k j k R e d i H k k o f n [k k ; k A
v f / k d r e v d j . k i f r ' k r y k y j k ' k u h d l k ' p k r
i h y h c ' y k h d v / k h u n [k k x ; k r F k k f u E u r e v d j . k
g j h j k ' k u h e n [k k x ; k A

v k b c h , 1000 i h i h , e] , p - l y h / h Q k f y ; k
d h d Y e k e t M d i k j H k d j u d f y , l c l m i ; D r
g k j e k u g A v k b c h , m i p k f j r d Y e k u v k b , , l
v f / k d v P N i f j . k k e f n [k k , A , p - l y h / h Q k f y ; k e
Q k b V k g k j e k u d k b c M h H k f e d k u g h f u H k k r i j r
e k l e d k i H k k o e g R o i . k g A e k p r F k k v i y d k
v k f [k j h b l d h d Y e k d k g k j e k u d f c u k y x k u d k
l o k ' y k e e k l e g A c h t k d h r y u k e [k r j k i . k d
f y , o k u l i f r d i o f / k r i k n i v f / k d v P N g A c h t k
l f u d y i k n i c g r d k e y g k r g r F k k m U g 2 1 / 2 o " k
d h v k ; r d j { k . k d h v k o ' ; d r k g k r h g r F k k d o y
o g h i k n i t k V g f u ; k o k y @ y d M h o k y g k r g
c k g j y x k , t k l d r g A d k f u Q j d h r j g
, p - l y h / h Q k f y ; k d k H k h y E c l e ; r d i k / k ' k k y k
e j [k u d h v k o ' ; d r k g A , p - l y h / h Q k f y ; k d
u , v d j k d f y , i k y h c x k @ : V V u j k e ? k k l i k r
f u d k y u k u d l k u n k ; d g A

e / ; i n : ' k d i f o f H k U u d f ' k t y o k ; o h ; l H k k x k i
e l ; D r o u i c / k u { k = k e v k " k / k h ; i k n i k d k
/ k k j . k h ; i c / k u

e / ; i n : ' k d n k d f ' k t y o k ; o h ; l H k k x k e
l ; D r o u i c / k u { k = k e v k " k / k h ; i k n i k d f y ,
/ k k j . k h ; i c / k u i j v / ; ; u f d ; k x ; k A , M k x k f Q l
i u h d y k V k d h / k k j . k h ; d V k b d v / ; ; u d f y ,
l r u k j] u k u h p i j] M y k [k M M h r F k k m e k j k u k y k o u
{ k = } f N n o k M k o u i H k k x e u e u k H k [k . M [k k t x , A
c p g k u k f u ; k y u t k u 1 / 2 f p j k t h 1 / 2 d h / k k j . k h ; d V k b d
v / ; ; u d f y , l h r k M k x j h] M y h [k M h] [k c g n ;]
c V d k [k i k r F k k v k > y / k k u k o u { k = } f N n o k M k o u

ou m R i k n d r k

i H k k x e u e u k H k [k . M [k k t x , A , L i j k x l
j / h e k l l 1 / 4 l r k o j 1 / 2 r F k k D y k j Q k b V e c k j h f o f y ; e
1 / 4 l Q n e l y h 1 / 2 d h / k k j . k h ; d V k b d v / ; ; u d f y ,
H k h m e f j ; k o u { k = } d r u h o u i H k k x e l k f [; d h
f M t k b u d v u l k j u e u k H k [k . M [k k t x , A

[k r k l / k k j . k h ; d V k b i j v k d M l k f [; d h
: l k l f o ' y f ' k r r F k k H k k " k k r f j r f d , x , A r h u o " k
d v o y k d u l ; g f u " d " k f u d k y k x ; k f d
, - i u h d y k V k d k i u : R i k n u l H k h d V k b L r j k
1 / 2 20 & 80 % 1 / 2 i j / k k j . k h ; g A v r % , - i u h d y k V k d k
l k j k i k / k k f c u k i u : R i k n u d u d l k u d v f / k d r e
m R i k n d r k d f y , d k V k t k l d r k g A c h - y u t k u
d k i u : R i k n u H k h l H k h d V k b L r j k 1 / 2 60 & 90 % 1 / 2 i j
/ k k j . k h ; g A v r % c h - y u t k u d 90 % Q y f c u k
i u : R i k n u d k u d l k u d v f / k d r e m R i k n d r k
d f y , r k M t k l d r g A , - j / h e k l l r F k k
l h - c k j h f o f y ; e d k i u : R i k n u 20 & 60 % d V k b
L r j k r d / k k j . k h ; g A v r % v f / k d r e m R i k n d r k r F k k
i u : R i k n u e f c u k u d l k u d 60 % , - j / h e k l l
r F k k l h - c k j h f o f y ; e i k n i k d k t M l f g r d k V k t k
l d r k g A

r n i i ' y k d h l r g d k c < k u d i f y , N i v k b i
i) f r ; k i r F k k v k x i f u d r F k k b u v k x i f u d
m o j d k d k e k u d h d j . k

N ' y k h l x < e] e k j x k] d k V k M k y] f y V h i k j k r F k k
y k g k r k j e l F k y k d k p ; u f d ; k x ; k A v k j c h M h
l k f [; d h f M t k b u k d k i ; k x d j r g , r n i ' y k d
v k d k j e o f) d f y , v d y ; k f e J . k d : l k e]
m o j d k d h f o f H k U u e k = k v k d i H k k o d k v o y k d u



ekjxk 1/4 NÜkh l x < 1/2 e r n i ' Ü k h i j j k l k ; f u d m o j d k
d k Q k y k ; j f N M d k o



dju d fy, ekjxk e jk l k; fud mojdk d ikfy; j fNMd ko ij i; kx fd, x, A p; fur LFkyk l l rgh rFkk mi l rgh enk ueu, df=r fd, x, rFkk mud fQft; kdfedy x.kk d fy, i; kx'kk yk e fo'yf'kr fd, x, A

jki.k okfudh d fy, io h&Hkkjr d n'k t rho: of) cgmnni'kh; o{kka d eY; kdu d fy, l efd r j.kuhfr

dnc rFkk ley dh ikdfrd tul[; k rFkk jki.kk ij l puk, df=r dh xba >kj[k.M] fcgkj rFkk if'pe cxky e 70 dUMhMV /ku o{k vfhkKkr fd, x, rFkk dUMhMV /ku o{k dk 'kkjhfdh; vk/kkj ij lcf/kr fo'y'k.k fd; k x; kA i; kxk dk Dykuh; io/ku ifØ; k dk fodflr dju d fy, fMtkbu fd; k x; k rFkk, Ufkkf/Qky l fpuuf l l rFkk ckEcD l /hck d Vt xkMu@oh, e th LFkkfir fd, x, A

p; fur ckl iitkfr; k d [kk] ijkg mRiknu rFkk df'k i)fr; k }kjk ijkg mRiknu vof/k dk foLrkj

>kj[k.M e 35 xko rFkk 25 cktkjk dk lo{k.k fd; k x; k rFkk fd l kuk }kjk i; kx dh xb [kk] ijkg dh ek=k] mi; kx dh iitkfr; k], d=hdk e dk; jr 0; fDr] Lo; ckl mi; kx] cktkjk e nh xb ek=k] ijkg 0; kikj e 'kkfey 0; fDr] vklr cph xb ek=k rFkk dekb bR; kfn ij l puk, df=r dh xba ijkg mRiknu vof/k ij ijh{k.k rFkk enk dk;] iyokj flpkb rFkk vxfud rFkk buvxfud l/kkj rFkk xPNu ic/ku }kjk enk lgr l/kkj }kjk iitkfr; k dh [krh dh xba ijkg NVkb i)fr dk ekudhdr dju d fy, dfFkr iitkfr; k d [kk] ijkg mRiknu dh ek=k rFkk x.koYkk ij fofHkUu rhorkvk e ijkg viuu; dju d iHkko rFkk xPNk dh lgr ij v/; u fd; k x; kA

2-2-3- Ikekft d okfudh] df'k okfudh@Qke' okfudh

vk'k/kh; iknik ij ikiy l MYVokbM l dk iHkko

ifj; ktuk dh [kktk u lfpr fd; k fd mYkjk[k.M d f'kokfyd igkfM; k e ikiy vk/kkfj r

df'k okfudh r= d v/khu fp=d ¼lyecxk tyfud'k ½ rFkk l rkoj ¼, Lijx l j/hek l l ½ vk'k/kh; iknik dh mi; Dr iitkfr; k gA bu vk'k/kh; iknik dh [krh rhu o'k iku jki.k e dh tk ldrh g rFkk ih-MYVokbM l d N o'k d pØ e de l denk Qly yh tk ldrh gA ikiy fp=d rFkk ikiy l rkoj df'k okfudh ekMy vkfFkd : lk l 0; ogk; g rFkk cktkjk dh miyC/krk l fd l kuk d fy, yHknk; d gk ldr gA fofHkUu J.kh d i.k/kkfj; k tl fd l kuk] lykboM m[kx Qkek l fvdY l rFkk jkT; ou fofHkxk d fy, ikiy vk'k/kh; ikni vk/kkfj r v/; u dk, d egROI.k mi; kx gA v/; u l; g Hkh Kkr gvk fd fofHkUu foLrkj mik; k l df'k okfudh i)fr; k dk viuku d fy, fd l kuk dk i.k exn'ku df'k okfudh i)fr; k d v/khu mud [krk e vk'k/kh; iknik dk mxku e lgk; rk dj ldrk gA

o{k&Qly ijLij fØ; k% efy; k iitkfr dk Qlyk ij iHkko

bl rF; dk /; ku e j[kr g, efy; k dEikftV k ij, d ifj; ktuk ikjHk dh xb ft l d v/khu ekgkyh fty e gMl jk rFkk gkf'k; k j i j fty e gdjku e i; kxkRed Hk[k.M LFkkfir fd, x, A dn.k efy; k dEikftV k dk df'k Qlyk tl eDdk rFkk xg d lkFk ijLijfØ; k ij Fkka rhu Hk[k.M ftudk vkdkj Øe'k 4x5eh, 5x5eh, 4x6eh l Fkk nkuk LFkyk ij LFkkfir fd, x, A lEi.k voykdu u n'kk; k fd efy; k dEikftV k u yxHkx 14 eh yEckb 65 l-eh- ?kj d lkFk iklr dh i.k dukih ic/ku d v/khu iknik e bud 8 o'k d pØ e vPNh ek=k e b/ku dh ydMh gkrh gA fofHkUu vrjky d v/khu efy; k dEikftV k d pkj o'k d jki.kk e nk Qlyk xg rFkk eDdk vfHkfyf[kr dh xb rFkk ik; k x; k fd [ky {k= dh Qlyk d edkcy e nkuk Qlyk dh [krh e dkb mYy[kuh; vrj ugh vk; k gA lHkh Hk[k.M e i; kxk d nkjku enk d x.kk dk Hkh v/; u fd; k x; k rFkk; g ik; k x; k fd efy; k dEikftV k jki.kk e enk dh mojdk r ij dkb cjk iHkko ugh iMk gA jki.kk e enk dh mojdk r e l/kkj ik; k x; kA



ioh mYkj in'k ei egRoi.ki d'f'k okfudh
itkfr;k di idk'B cktkj;k dk v/;;u

oreku le; e ioh mYkj in'k e o{k
vkPNknu dk c<ku d fy, d'f'k okfudh ,d 0;ogk;
fodYi gA dk"B vk/kkfjr cktkj rFkk idk"B m|kxk
dh vlxBr rFkk [kjc miyC/krk u fd lkuk dk
d'f'k okfudh dk iR lgu nu d fy, v/kke[k fd;k
gA ioh mYkj in'k e cktkj J[kyk cgr [kjc g
rFkk fd lkuk rFkk 0;kikj dPp ekY rFkk idk"B rFkk
ck l d 0;kikjd lkrk d ifr tkx: d ugh gA vr%
mRikndrkvk rFkk 0;kikfj;k d chp dh J[kyk dk
etcr dju dh n'V l ;g v/;;u ioh mYkj in'k
d {k= e djuk iLrkfor fd;k x;kA ifj;ktuk d
v/khu vk/kkj j[kk vkdMk d lc/k e lfgR; ij
ijke'k] itkfr;k dh igpku] ftyk dk p;u] cktkj
LFkkuk dh igpku] lcf/kr ftyk d xkok dh lph
vfn r;kj dh xBA v/;;u d v/khu d'f'k okfudh
d fy, {k= dh egRoi.ki itkfr;k dk vfHkKkr fd;k
x;kA p;fur itkfr;k 'kh'ke] lxxku] vke] uhe]
tkeu] dVgy] ckl] egvk] ikiy] ccy rFkk
;dfyIVl gA v/;;u LFky ; ih ,l ,Q Mh d
lkFk ijke'k lfrg ioh mYkj in'k d v/khu lHkh
rhu d'f'k tyok;oh; lHkxk dk doj djr g, N%
ftyk e vfHkKkr fd;k x;kA p;fur fty
bykgckn] jk;cjy] cjkckdh] cgjkb] xkj[kij
rFkk lkuHkn FkA mRikndk rFkk 0;kikfj;k ij lpuk
,df=r dju d fy, i'ukoyh cktkj LFkkuk]
fd lkuk] xke lpuk] m|kxk] dKUVdVj]
Quhpj@dk"B cktkj ij r;kj dh xBA idk"B
ck tkj LFkkuk t l vkjk fey] ou dkikj'ku] lykboM]
iYky m|kx] ckl cktkj@Quhpj cktkj@fcpkfy;k
FkA vkdMk ,d=hdj.k nk ftyk jk;cjy rFkk
bykgckn e d'f'k okfudh d v/khu cktkjhdj.k
;kx; idk"B ij lpuk fd lkuk@mRiknu d fy,
fd;k x;kA xleokf l;k dh ekx vkifr lFkfr vrj
rFkk idk"B foi.ku d fy, iR;d Cykd l ,d
ifrfuf/k xko dk Hkh lfr fd;k x;kA blh idkj
vkjk fey] m|kxk rFkk vU; cktkj LFkkuk l ekfdV
fooj.k ,df=r fd;k x;kA 0;kikfj;k@mRikndk d
vkdMk vk/kkj dk r;kj dju d fy, vkdMk l dyu
ifØ;k e gA

ou mRikndrk

ioh mYkj in'k ei ek tnk jki.kk di fy, LFky
fof'k"V vk"K/kh; ikni vk/kkfjr d'f'k okfudh
ekMyk dk fodkl rFkk in'ku ekMy dh
LFkkiuk

Qke d'f'k okfudh lghkfxrk vulU/kku d
fy, LFky p;u d fy, {k= dk lo{k.k fd;k x;k
rFkk lghkfxrk vulU/kku d fy, mi;Dr fd lkuk
dh igpku d fy, i'ukoyh r;kj dh xBA vke]
vkuyk] egvk] ckl rFkk ;dfyIVl itkfr dh o{k
Qlyk d lkFk bykgckn fty e vk"K/kh; iknik d
i;kxRed ijh{k.k d fy, LFky p;fur fd;k x;kA
lh vkb ,e , ih] y[kuÅ l l ix/kk] ipkyh] lkoj
rFkk dkye?k d itud [kjh x, rFkk vk"K/kh;
iknik d io/ku rFkk i;kxk d fy, ik'k'kyk dh
LFkkiuk dh xb rFkk cukb xBA

rfeyukM di fofHkUu d'f'k tyok;oh; lHkxk
ei ckl ekMy jki.kk dh LFkkiuk

x.koYkk jki.k Hk.Mkj dk i;kx djr g,
0;ogkj e ykb xb itkfr;k %cEc/k cYdvk]
ch- VYMK] ch- U;VU l] ch-oYxfj l rFkk
MUMkdye l LVkD l h % rFkk n't itkfr;k
%MUMkdye l LVhDV l rFkk cEc/k cEc l % dh of)
in'ku dk inf'kr dju rFkk l[e iof/kr] ogn
iof/kr rFkk vdjk l mxk;k xB jki.k lkexh dk Hkh
inf'kr dju d fy, rfeyukM d fofHkUu d'f'k
tyok;oh; lHkxk e 100 g- e ckl jki.k LFkkfir
fd, x,A ukyk dh l[;k d vk/kkj ij in'ku dk
n[kr g, fofHkUu lHkxk e vu'f l r itkfr;k g

if'peh lHkx&MUMkdye l fLVdV l]
cEc/k oYxfj l] cEc/k VYMK] cEc/k U;VU l]
cEc/k cEc l] cEc/k cYdvk rFkk
MUMkdye l LVkD l hA

mYkj ioh lHkx&cEc/k cYxfj l] cEc/k
VYMK] cEc/k U;VU l] MUMkdye l fLVdV l]
MUMkdye l LVkD l h] cEc/k cEc l rFkk
cEc/k cYdvkA

mYkj if'peh lHkx&cEc/k cYxfj l]
MUMkdye l fLVdV l] cEc/k cEc l rFkk
cEc/k cYdvkA



dkojh MYV_k I Hkx&cEc I k oYxfj I]
cEc I k VYM_k] MUM_kdye I fLVDVL_k]
MUM_kdye I LVkD I h] cEc I k cEc I] cEc I k U; VU I
rFk cEc I k cYdv_kA

nf{k.kh I Hkx&cEc I k oYxfj I]
MUM_kdye I fLVDVL_k] cEc I k U; VU I]
cEc I k cEc I] MUM_kdye I LVkD I h] cEc I k VYM_k
rFk cEc I k cYdv_kA

Ikr fofHkUu itkfr;k d fy, v;/fur
fofHkUu p;fur fQukVkbll d chp] cEc I k cYdv_k
dh ch ch₅ rFk ch ch₆] cEc I k cEc I dh ch ,
ch ,₁₂ rFk ch ,₈] cEc I k VYM_k dh ch Vh₁]
cEc I k oYxfj I dh ch oh₂ rFk ch oh₆]
MUM_kdye I LVkD I h dh Mh ,₁₂ rFk MUM_kdye I
fLVDVL_k dh Mh ,₄ lcl vf/kd vxh_{dr}
fQukVkbll ik, x, tk fd rfeyukM d fofHkUu
I Hkxk e mxk, tk ldr gA

vdjk dk jki.k] 'kk[kk dye rFk jkbtke I
mYkj_h ioh cjlkrh ekle e[;r% vDVcj I igy dj
yuk pkfg, A cjlkrh ekle I igy mUg vktiod
<x I c<u d fy, ik/kk e ikuh yxkrkj
yxkukpkfg, A ckl d Hkhrj ueh dk lryu cuk,
j[ku d fy, I[k ekle e ikuh yxku dh
vko'; drk g tk fd u, yxk, x, ckl d vflrRo
rFk jkbtke foLrkj d fy, vko'; d gA fpduh
feVv_h rFk de ueh voj_k/ku{kerk oky_h enk I
cpuk pkfg, A ckl dk [krk e mxkuk pkfg, t_gk
flpkb dh ijh miyC/krk gk tcf_d n't itkfr;k
d vrfjDr I Hk itkfr;k dk 'k" d n'kkvk e
okLrfod forj.k gkuk pkfg, A vU; itkfr;k dh
ryuk e cEc I k oYxfj I e flfydk rRo de gA vr%
dkxt rFk yXnh m|kx e[;r% Vh ,u ih ,y]
lfonk df" k v/khu bl cgr ikr l kfg_r dj jgh gA
rfeyukM e oreku fLFkr e itkfr;k d fy,
lfuf'pr cktkj gA vr% fd lku itkfr;k dk mxku
d fy, mR l kfg_r g ;fn og dkxt feyk d l kFk
vuc/k d jA

ckl d fy, vrjky dk 5 x 5eh- I c<kdj
;k rk 7 x 5eh- ;k 7 x 6eh- dj nuk pkfg, D; kfd
rhu lky d jki.k e tYnh ldyu gk tkrk gA
bl d lk'pkr T; knk vrjky vrj Qly rFk uky_k
d Hkfo"; dk; d fy, ykHknk; d gkxkA ckl dk
df" k okfudh ekMy_k rFk itkfr;k t l Vfiikd_k]
gYnh] exQy_h] dyk rFk l fCT_k; k d l kFk vkjfhk_d
o"kk e yxHkx nk o"kk rd mxk; k t k ldrk gA uky
dk fMkutLV dju d fy, 'kk[kk vk dh NVuh
rh l j lky e dju dh vko'; drk g tk uky
LokLF; dk Hk l fuf'pr djxkA ckl d ogn io/ku
d fy, 'kk[kk ukMy dye iHkko_h rjhdk gA , d
'kk[kk l de l de ikp l lkr dye cu ldrh gA
iR; d uky l rhu l pkj 'kk[kk, ikr dh tk ldrh
gA ifj; ktuk l ikr fd, x, Kku dk rfeyukM d
ckxokuh vQl jk] rfeyukM d fd l k k rFk ukckM
d depkj; k] rfeyukM ou foHkx rFk ikmpj_h ou
foHkx d fy, vk; kft r if'k{k.k dk; Øek e mi; kx
e yk; k x; k gA fd l ku lenk; dh Hkykb d fy,
rfeyukM e df" k ;kx; ckl ij , d ck'kj dk
idk'ku fd; k x; k gA

rfeyukM d [krk e ckl [krh dh mRikndrk
e l /kkj

rfeyukM e df" k [krk d ck/kk d l kFk rFk
dkojh MYV_k I Hkx e 0; klr ikj ikfjd ckl jki.k e
cEc I k cEc I dh dN ukyk dk mxkuk ifrcf/kr gA
ifj; ktuk d v/khu] jk"Vh; ckl fe'ku] df" k rFk
lg; kx foHkx ½ckxokuh iHkx½] df" k e=ky;]
Hkjr ljdkj }kj fuf/k; hr fcuk dkV_k oky_h
ckl ; Fk&ch- cYdv_k] ch- oYxfj I] ch- VYM_k]
ch- U; Vu I rFk vkD I h VukUFkj ikohQkfy; k d
Cykd jki.k dk fd l k k d [krk e yxk; k x; kA rhu
df" k tyok; oh; I Hkxk ; Fk& nf{k.kh I Hkx] dkojh
MYV_k I Hkx rFk mYkj if'peh I Hkx l fd l k k dk
lekpkj i=k e foKiu d }kj viuh Hkfe dk fcuk
dkV_k oky_h ckl Cykd jki.k dk yxku d fy,
vkef=r fd; k x; kA iLrr [krk dk fujhf{kr fd; k
x; k vkj flpkb rFk j{k.k l fo/kkvk dh miyC/krk d



vk/kkj ij l f{klr lph cukb xba iR; d ykd'ku e 1-5 ,dM ¼0-6 g-½ e iR; d i tkfr d Cykd jki.k nk ifrdfr; k e cuk, x, ftUg fu;=.k l fgr mojd mipkj d fofHkUu Lrj fn, x,A iR; d ykd'ku e 7-5 ,dM ¼3 g-½ 5 i tkfr; k dk doj djrk gvk LFky ijh{k.k dk d fy, cuk; k x; kA iR; d d f'k tyok; oh; l Hkx e 3 bl idkj d ijh{k.k LFky cuk, x, t gk 27 g- [krk e 9 ijh{k.k QYk g, FkA mYkj t hfork ij vk dM vkof/kd : lk l ,df=r fd, x, gA

,d ckl tuun0; rFkk cgyhdj.k xkMu dh LFkkiuk dju d fy, d:ph] dk; EcVj e vkb ,Q th Vh ch QhYM LV'ku d Hkhrj 10 g- {k= dk r; kj fd; k x; k gA n'khkj l ckl tuun0; cd e ,df=r dju d fy, 34 ckl i tkfr; k d 81 ,lfl; ul ,df=r fd, x,A i tkfr; k 40 ,Dl lu ekMy uljh] dk; EcVj e ,df=r fd, x, RkFkk i k f'kr fd, x,A

d yhu jki.k lkexh rFkk ekMy jki.k dk fodkl

uhe rFkk ix e d 50 g- ekMy jki.k dk mxku d fy, dk; EcVj d lLFkku dh ik/k'kkyk e 15000 uhe vdjk dk mxk; k x; k t cfd 12500 ix e vdjk dk ,d ikboV , t l h l [kjhnk x; kA vdjk dk i; kx djr g, lkyhe e gky gh LFkfkfir QhYM LV'ku e Cykd jki.k rFkk j [kk jki.k dh fof/k l uhe rFkk ix e d 2 g- jki.k LFkfkfir fd, x, gA bl h idkj] ch , l ,Q ikx.k d Hkhrj dhVely; e] dk; EcVj e j [kk jki.k ekMy dk vxh d r djr g, uhe ¼5 g-½ rFkk ix e ¼1 g-½ mxk; k x; kA rfeyukM exulkbV fyfeVM ¼Vh , ,u ,e , t h½ l kye u vxkeh cjlkrh ekle e viu ikx.k d Hkhrj 40 g- {k= e uhe rFkk ix e dk i k f'kr dju d fy, l) kfrd : lk l vuefr nh gA

rfeyukM e vki kfxd d f'k okfudh ij eY; Ji[kyk

ou vkuokf'kdh ,o o{k i tuu lLFkku }kj l okYke vfHkKkr fd, x, ; dfyIVI rFkk dTokfjuk

d lokYke Dyku@lhMykVI dk lkexh gLrkrj.k vuc/k d v/khu m|kx dk gLrkrfjr dj fn; k x; kA ;g lkexh ckjh&ckjh l m|kxk }kj k fd lkuk dk llykb dj nh tkrh g ftud l kFk bl dk ck; &cd ic/ku gkrk gA ;g ou vul/kku lLFkku] dk"B vk/kkfjr m|kx rFkk o{k fd lkuk d chp ,d f=&i{k; vuc/k gA vuc/k jhfr d }kj k rfeyukM d nk fty bl ifj; k tuk ¼d f'k okfudh½ d v/khu doj fd, x, gA i; kxRed LFky rFkk fd lkuk d [kr m|kxk d i jke'k d l kFk gh p; fur fd, x, gA f=&i{k; i.kkyh d v/khu yxHkx 30 g- jki.k fd lkuk d [krk e i jk fd; k x; kA

dTokfjuk dk; EcVj dMkykj e nk gkbchM Dykuh; ijh{k.k LFkfkfir fd, x, ¼Hkkrj; j ;uhof lVh dEil½ dMkykj rFkk ikp Dykuh; ijh{k.k fuEu ikp LFkuk ; Fkk& dk; EcVj] ,j kM] d : j] uke : dy rFkk dMkykj e LFkfkfir fd, x,A

; dfyIVI vFkhiky; e e gkb l k fud enk e Dykuh@ifjokj d p; u d fy, ,d Dykuh; & de&l rfr ijh{k.k LFkfkfir fd; k x; k rFkk djmj fty e 15 fd l ku LFky ijh{k.k t l & vFkhiky; e] mihyhiyk; e] dkuxkfiyh; j rFkk nk [kr ,u ,p&7 fMMxy e[; ekx d utnhd LFkfkfir fd, x,A ,d gkbchM ijh{k.k dk; EcVj e LFkfkfir fd; k x; kA

f=&i{k; vuc/k vul/kku d ifj.kkek dk fd lkuk d [krk dk gLrkrfjr dju e iHkko gA o{k fd lkuk d }kj k jki.k d fy, vkuof'kd : lk l l/kjh gb lkexh miyC/k g rFkk ck; &cd ic/ku d dkj.k mRikn d fy, l fuf'pr ck t kj eY; gA

dTokfjuk rFkk ; dfyIVI dh vki kfxd o{k i tkfr; k d v/khu vkfFkd : lk l egRo i.k vk''k/kh; i knika d l kFk d f'k okfudh r; k dk fodkl

d f'k okfudh n'k d fofHkUu Hkxk e Hk mi; kx dk; i.kkyh d : lk e egRo iklr dj jgh gA [krk e] fd l ku fofHkUu d f'k Qlyk t l : b] lk; kchu] eDdk] exQyh rFkk vU; [kk] i knik d l kFk o{k i tkfr; k dk vrj Qly d : lk e ckr gA t cfd db vulU/kku drkvk u bu d f'k Qlyk d fy,



df"k okfudh ekMy fodflr fd, x, g ijr vk"/kh;
iknik d lkFk df"k okfudh r= fodflr dju d
fy, dkb lefpr vulU/kku ugh fd;k x;k gA
fd lkuk d [krk e o{k i tkfr; k fo'k"kdj dTokfjuk
rFkk ;dfyIVI dk mxku d fy, :fp ink dju
rFkk vk"/kh; iknik d fy, ektnk {kerk cktkj d
lnHk e] oreku v/;;u fd;k x;k rkfd vk"/kh;
iknik d lkFk mi;Dr df"k okfudh r= dk fodflr
fd;k tk l dA bl v/;;u d v/khu vk|kfxd :lk
l egROI.k ikni t l ,LijxI j lhek l l] dfl;k
lhuk] Mhdyhfil gfeyVukub] xykfj;k l k l i ckj
gehMlel bfMdl] lyhDVjuFk l ckjckVI]
fcFkkfu;k vkcV; lhQkfy;k rFkk MCY; lkeuhQjk
dk p;fur fd;k x;kA dTokfjuk rFkk ;dfyIVI d
lkFk vk"/kh; iknik dh [krh rFkk df"k okfudh r= e
mudh vudyrk ij v/;;u ,d u;k ln'k [kkyxh
rFkk fd lkuk dk bl r= dk i;kx dju rFkk fd l h
Hkh vU; df"k Qly d lkFk vrj Qly mxkdj
vf/kd ikfjJfed iku d fy, iKR l kfgR djxhA
rfeyukM d; fofHkUu df"k tyok;oh; l Hkxkxk
e; df"k okfudh r= dk d; v/khu rho of) o{k
i tkfr;k dk ifjp; rFkk eY;kdu

rhu l Hkxkxk ¼mYkj ioh] dkojh MYV k rFkk
rfeyukM d nf{k.kh tku½ e vko'; d 15g- df"k Hkfe
dk vfHkKkr fd;k x;k rFkk rhuk l Hkxkxk e 5g- e
efy;k Mfc;k] eyhuk vkckfj;k] fu;k yekjfd;k
dnEck rFkk LohVhfuk; ekbØQk;yk dh rho of)
o{k i tkfr;k d df"k okfudh ijh{k.k LFkfkfir fd,
x,A vrj Qlyh fØ;kdyki fd, x, rFkk vrj
Qlyk dk toi t rFkk df"k dk vkdk x;kA iFke o"k
e dh xb vrj Qlyh fØ;kdyki k l ifr gDV;j d
vk/kkj ij gYnh d lkFk efy;k Mfc;k u vf/kdre
uV okf"kd fjVu ; 1]25]700@& jftLVM djok;k
rFkk mld lk'pkr dyk d lkFk th- vkjckfj;k
¼ ; 41]550@&½ rFkk Vkih;kdk d lkFk ,e- Mfc;k
¼ ; 32]468@&½ jgA ,yikFkh v/;;u rho of) o{k
i tkfr;k d iYkk] ruk rFkk tMk l r;kj ,DI;MVI
l vk;kftr fd;k x;k rFkk v/;;u eDdk] 'kkjxe
eDkk dky pu ij i.k gvkA iMdkfV fty d

fd lkuk d fy, ^df"k okfudh jki.k LFkkiuk rFkk
ic/ku ij {kerk fuek.k ij ,d if'k{k.k vk;kftr
fd;k x;kA



rfeyukM d nf{k.kh {k= e efyuk vkckfj;k
rFkk xUuk



rfeyukM d dkojh MYV k {k= e ehfy;k Mfc;k
d lkFk gYnh d [kr



rfeyukM foYyije ftyk½ d mUkj&ioh {k= e fd lkuk d
[krk d v/khufu;k yekjfd;k dnEck] efyuk vkckfj;k
rFkk ehfy;k Mfc;k]



vkU/k in'k d v/k'k'd m".kdfVc/k e o{k
i tkfr;k d :lk e jkbV;k fVdVkfj;k
vkj ch vkj rFkk eykbuk vkckfj;k jk,Dlc- d
df"okfudh ekMyk dk fodk l

vk/k in'k d pyeMk] jkek;eiV eMy rFkk
ehMd fty e jki.k d fy, i;kxkRed LFky r;kj
fd, x,A v/;;u LFky l enk ueu ,df=r fd,
x, rFkk Hkkfrd&jkl;k;fud x.kk d fy, fo'yf"kr
fd, x,A eykbuk vkckfj;k rFkk jkbV;k fVdVkfj;k d
vdjk dk ,Q vkj l h ik/k'kkyk e ikf"kr fd;k x;k
rFkk jMxe rFkk l k?e d l kFk vrj Qly d :lk
e ckgj jkik x;kA vrj Qly dk ifjiDo gku ij
dkVx;k vkj mit vkdMk vfHkyf[kr fd;k x;kA
jkbV;k fVdVkfj;k rFkk eykbuk vkckfj;k dk of)
vkdMk jki.k d N% ekg lk'pkr vfHkyf[kr fd;k
x;kA

ek.M;k ftyk] dukVd e ,d iji jkxr
QkBD l vk/kkfjr df"okfudh r= dk
ikfjLFkfrdh;] vkfFkd rFkk lkekftd&
l kLdfrd eY;kdu

ek.M;k fty e lkr rkydkvk dk doj
djr g, yxHkx 200 ,dy fd lku lo{k.k rFkk 16 xk
Lrjh; lo{k.k ij fd, x,A QkBD l cxkyuf l l
QkBD l dh lcl vke i tkfr g tk Qlyh i.kkyh e
fd l kuk }jkj mxkb tkrh g rFkk e[;r; i'kvk d
pkj rFkk NKV idk"B d fy, mxkb tkrh gA QkBD l
i tkfr dk 'k'd Hkfe e fd l kuk }jkj mPp oj;rk nh
tkrh g ijr flpkb d l kFk oj;rk rho of) o{k
t l ;dfyV l rFkk cxxokuh i tkfr;k t l ukfj;y
dk gLrkrfjr gk tkrh g tk vkfFkd :lk l vf/kd
Qk;nen gA df"okfudh e QkBD l o{k dk vxh
dru d iHkkfor dju oky ?kVdk d ik l fxd
fo'y"k.k l kkr gvk fd QkBD l o{k dk vxhdj.k
l dkj kRed :lk l i'k vk; rFkk dy Hkfe {k= l
lcf/kr g rFkk udkj kRed :lk l flfpr Hkfe dh
ifr'krk l lcf/kr gA [kjirokj Qky iVu rFkk
[kjirokj d }jkj ik"kd fuo'k ij v/;;u l kkr
gvk fd ,Q- cxkyuf l l dk okf"kd [kjirokj
Qky yxHkx 2-5 Vu@g- Fkk ftle l 60 ifr'kr
doy iYk [kjirokj FkA 'kh" [kjirokj Qky egu
vDVcj&uoEcj ik, x,A ;g ik;k x;k fd

16 o{k@g- dh vk l r ?kurk e QkBD l o{k ,u dk
77% ih dk 20% rFkk d dk 68% 'k'd Hkfe Qlyk
dh ifr g- ifr o"ko'vko';drk dk QkBD l o{k ijh
djr gA [kjirokj vi?kVu v/;;u u fn[kk;k fd
v/kLry mipkj e QkBD l iYk [kjirokj viu
okLrfod dM dk vk/kk gh 169 ¼vk/kh thou vof/k½
fnuk e vi?kVr djrk g tcfv u; 'k" l Hkh enk
/jkry vk/k dM dk v/;;u dju e 200 fnu
yr gA

vk/k in'k] dukVd rFkk xkok e N% egRoil.k
ckl i tkfr;k ;Fkk& cEc l k ckYdvk
ch- U;Vu l] MUMkdye l ,Lij] Mh- gfeyVukb]
Mh- LVkd l h rFkk xvkmvk vuxLVhQky;k dk
cgLFk fud l=ikr de&in'ku&ijh{k.k rFkk
{k= eY;kdu

eb&tu 2007 d nkju vk/k in'k rFkk xkok e
jkT; ou foHkkxk d ije'k d l kFk LFkyk d p;u
dk vfre :lk inku fd;k x;k tcfv dukVd d
fy, LFky dk vfre :lk inku dju dk dke tu
2008 e ijk gvka cEc l k U;Vu l] MUMkdye l
,Lij] Mh- LVkd l h rFkk xvkmvk vuxLVhQky;k dk
mRiknu rFkk dYpj dh LFkkiuk vkb MCY; ,l Vh]
cxykj e 2006 l 2007 d nkju fd;k x;kA cEc l k
ckYdvk rFkk MUMkdye l gfeyVukb l {e
ifjof/kr ikni Øe'k xk ekj ck;kfVd] gklj rFkk
vkb ,p ch Vh] ikyrij] fgeky in'k l
2007&2008 d nkju [kjh x,A vk/k in'k rFkk
xkok d fy, cEc l k U;Vu l tu 2007 d nkju
Vh ,Q vkj vkb] tcyij l [kjh x,A vk/k in'k
¼20 g- fprkyiMh rFkk cxxikM½ rFkk xkok
¼5 g- vxkykVh½ e tykb&vxLr 2007 d nkju [kr
r;kjh rFkk jki.k r;kj fd, x,A dukVd ¼20 g-
uorj f'kekx½ e tykb&vxLr 2008 d nkju [kr
r;kj dh xb rFkk jki.k r;kj fd, x,A 45 g- d
in'ku ijh{k.k dk i.k y{; ¼vk/k in'k e 20 g-]
dukVd e 20 g- rFkk xkok e 5 g-½ 2008 e ikr fd;k
x;kA l Hkh rhuk jkT;k e er;rk ifrLFkkiuk flRecj
2009 e ijh dh xBA fd l kuk dh l ;k rFkk vk l r
Åpkb d fopkj kFk] mYkjt hfork nj rFkk of) in'ku
dk eY;kdu dju d fy, LFky ijh{k.k dk fu;fer
vkdMk vfHky[ku fd;k x;kA ckl d fy, mPp



mRikndrk jki.kk d dk;i.kkfy;k d idtk d
iek.khdj.k d mnn'; d ,d Hkkx d :lk e xkok
ou foHkkx ¼t h ,Q Mh½ vk/k in'k QkjLV MoyieV
dkjikj'ku ¼, ih ,Q Mh l h½ rFkk dukVd ou foHkkx
¼d ,Q Mh½ d depkfj;k dk ckI ogn ipjknHko
rFkk okuLifrd io/ku ij Øe'kQ Qjoj] flrEcj
2010 rFkk tuojh 2011 e if'k{k.k fn;k x;kA

e/; Hkkjrh; jkT;k e c<h gbi vk; l' tu dju
di fy, ubi ckI d'f'k okfudh rduhdki dk
/kkj.kh; fodkl

e/; in'k rFkk NÝkhIx< jkT;k d fofHkUu
xkek e fdI kuk d chp tkx:drk yku d fy,
rfkd og viu [krk e ckI yxk, rFkk Vh ,Q vkj
vkb d i; kxkREkd {k= e ckI vk/kkfjr d'f'k okfudh
LFkkfir dju d fy, ckI dh nk i tkfr;k ; Fkk&
CkEc/k U; VU/ rFkk MUMkdyeI fIVDV/ dk
p;fur fd;k x;kA ckI vk/kkfjr d'f'k okfudh r=
rFkk bld ic/ku d ykHkk d ckj e if'kf{kr dju d
fy, e/; in'k d fNnokMk rFkk Xokfy;j d ftyk
rFkk NÝkhIx< d nvkij rFkk jk; ij ftyk e
fdI kuk d fy, 2008&2009 d nkjku ih vkj ,
rduhd d }kjk ,d if'k{k.k vk; kft r fd;k x;kA
mudh ekx ij ch- U; VU/ d vdi forfjr fd, x,A
nk Qlyh eklek tI [kjhQ rFkk jch e i.kkyh dk
nkgjkr g, ckI&xg rFkk ckI&mMn fIYoh&,xh
fILVe dk ekudhr fd;k x;kA



ckI dh dVkb lk'pkr dk n';&d'f'k okfudh i; kxkRed
Hk&[k.M] m-o-v-l-] tcyij e xg&fIYoh&,xh r=
vk, lvkj d :lk e LFkkfir



vk, lvkj] m-o-v-l-] tcyij e 23 fnIEcj 2010 dk tcyij
fty d e>vkyh Cykd e ixfr'khy fdI kuk dk
ckI vk/kkfjr fIYoh ,xh&r= d ykHkk ij
in'ku rFkk if'k{k.k



m-o-v-l- d fun'kd fdI kuk dk d'f'k okfudh
d ykHkk d ckj e crkr g,



if'k{k.k d rduhdh l= d nkjku ifj;ktuk d ie[k vUo"kd
fLkLI eDdk& fIYoh&,xh r= dk Kku nr g,



r= l iR;d Qly dk gVku d lk'pkr rFkk
igy ,df=r enk ueuk d Hkkfrd&jklk;fud
fo'y" .k d }kjk ik"kd cyl 'khV r;kj dh xBA
vkdMk u Hkfe dh vkjfhkd fLFkr d edkcy
ukbVktu dh c<h gb fLFkr n'kkbA mit rFkk of)
ijkehVj vfHkfyf[kr fd, x, rFkk vrj Qly d
nkjku ckl dk nkuk ij iHkko dk n[ku d fy,
lkf[;dh :lk l fo'y" .k fd, x,A vkdM ldr
djr g fd xg dh vf/kdre mit ch- U;VU/ rFkk
fuEure Mh- LVhDV/ d v/khu jftLVM dh xBA

MYcfti;k flll ¼'kh'ke½ e: eDdk dh
mRikndrk dk eY;kdu rFkk th- et ½eDdk½
df'k okfudh r=

m-o-v-l- d i;kxRed {k= e rhu o"kh;
flll jki.k d v/khu [kjHq ek le d nkjku gkbchM
fdle d th- et Qlyk dk vrj Qlyhdj.k d
}kjk MYcft ;k flll vk/kkfjr df'k ou lo/ku r=
dk ekudhdr fd;k x;k gA r= d v/khu
o{k&Qly d fofHkuu ijkehVjk ½of)] mit] to it
rFkk ik"kd Lrj½ ij vkdM ,df=r fd, x,A
ifj.kkek ij vk/kkfjr vkdM n'kk r g fd eDdk
Qly dh vf/kdre mRikndrk flll d 5 x 5eh-
rFkk mld lk'pkr 4 x 4eh- e iklr gb tc flll
o{k d lkFk vrj Qlyk d :lk e ckb xBA blh
idkj Mh- flll d iklr dh of) u Åpkb rFkk
ifj/f e fu;fer c<kYkj fn[kkbA dkj.k ;g gvk fd
iR;d dYpjy vkij'ku tk lcf/kr Qly dk fn;k
x;k og df'k okfudh r= d v/khu o{k d fy,
ykhknk;d Fkka ifronu d y[ku d fy, vkdMk dk
ldyu] lkj.khdj.k rFkk fo'y" .k ixfr v/khu gA

tciyij fty d iMkfj;k] [kekfj;k]
lkYhokMk rFkk uhe[kMk pkj xkok d fd lkuk d fy,
^MYcft ;k flll&th&et&fYoh&,xh fllVe* ij
,d fnolh; if'k{k.k&de&in'ku dk;Øe
vk;kft r fd;k x;kA

cgQlyh ½fYoh&,xh&likb l ½ r= dk fodkl

vkuyk dk vjgj rFkk vnjd d lkFk vrj
Qly d :lk e mxkdj cgQlyh r= dh LFkkiuk
dju d fy, Vh ,Q vkj vkb d vk ,l vkj dk
i ;kxRed {k= e :lk e rFkk ,d vk ,Q vkj d :lk
e fd lkuk d [kr] uhe[kMk xke] tciyij fty enk

v/; ;u LFky p;fur rFkk vfHkKkr fd, x,A io
dYpj t l lQkb] [kjirokj gVku] trkb] [kr dk
Lrjhdj.k] Qke ;kM] [kkn l vk/kkfjr Mflx dh
xBa QkbyUFk l ,EcyhdK ¼vkeyk½ dh nk [kjnh rFkk
ifrjkfir fdlek ;Fkk ,u , 7 rFkk ,u , 10 dk 10eh
x 8eh rFkk 10eh x 6eh d vrjky ij dTkkul dtu
d lkFk vrjQly d :lk e QDVkfj;y vkj ch Mh e
ck;k x;kA r= d ikjHk dju l igy enk x.kk d
fu/kkj.k d fy, ½enk ih ,p] b lh rFkk vkxfud
eVj dkVV½ enk ueu ,df=r rFkk fo'yf"kr fd,
x,A ,ukyk dh of) ij vkdM vfHkfyf[kr rFkk
lkj.khc) fd, x,A

yk[k vk/kkfjr fYoh&,xh&yk[k&r= dk
fodkl

ifj;k tuk d v/khu vk ,Q vkj LFkkfir
dju d fy, LFkkuh; {k= dk fd lkuk d [krk dk
p;u dju d fy, lof[kr fd;k x;kA yk[k gkLV
dh nk itfkr;k d ik/k ;Fkk&QyhfeFx;k
/fe;kYkVk rFkk QyhfeFx;k eØQk;yk] ikdfrd
jftu rFkk xkn vul U/kku lLFku] >kj[k.M uede
jkph l [kjhn x, rFkk ifj;k tuk d v/khu nk
v/; ;u LFkyk d :lk e p;fur vk ,l vkj rFkk
vk ,Q vkj e ifrjkfir dh xBA Hkfe d ikdfrd
x.kk rFkk ik"kd Lrj dk vkdyu dju d fy, enk
ueu ,df=r dj fo'yf"kr fd, x,A nkuk itfkr;k
d of) rFkk mYkj thfork ij voykdu vfHkfyf[kr
fd, x,A

,Lijx l jllhek l l ¼lrkoj½ d fy, df'k
ikVkdY dk ekudhdj.k

vf/kdre vdj.k tu ekg e ¼70%½
voykdr fd;k x;k rFkk 2-5&3-0 l-eh- xgkb u
vPN ifj.kke fn,A voykdu u n'kk;k fd vU;
mipkj dh ryuk e ub tM Hkkj] ikni Hkkj] yEckb]
0;k l rFkk dnk dh l[k d lnHk e Vh2&ikf{k d
flpkb lcl mYke mipkj gA ueh tM mit rFkk
tMk dh vf/kdre l[k d lnHk e ,Q okb ,e oeh
dEi kLV @12-5 Vh@g- ¼t l 250 xke@ifr ikni½
rFkk oh , ,e @5 Vh@g-¼t l 10 xke@ifr ikni½
vkn'k ek=k fl) gbA dnk dh dVkb 60 x 60 l-eh-
d vrjky l fuEure ud l ku gvkA dnk dh of) e
l/kj gvkA vf/kdre mit iku d fy, lrkoj dh



dVkb d fy, lok'ke vk; 18&24 egHu gA
lRkofj;u iv d fy, ,e ih ,e ,Q ih ikflx
rFkk fjlp lVj Hkkiky rFkk likfu rRo d fy,
odV'k QM bMLVht] ,u vkb ,l vk 9001
,p , l h l h iekf.kr dEiuh fNnokMk l dnk dk
jklk;fud fo'y" k.k fd; k x; kA lRkofj;u iv rRo
0-73% rFkk likfu rRo 49-0% vf/kdre ,Q okb
, mipkfjr Hk [k.Mk e ik; k x; kA

>e {k=k e; Hk mi; kx dk; l i. kkyh dk vkdyu
rFkk fofHkUu mRiknu lcf/kr ijkehVjk dh
tkp

rhu idkj d Hk mi; kx r=k& 0; ofLFkr]
>e rFkk gke xkMu dk voykfd fd; k x; kA >e
[krh e ek leh Qly t l VekVj] iYkxkHkh] fep
vkfn dh i. kkyh gA gke xkMu i. kkyh e dnn
bR; kfn gA tcf d ,D; vkdYpj i. kkyh dk ijijxr
: lk l mi; kx e fy; k tkrk gA ih vkj , mik; k l
fØ; kdyki dyMj r; kj fd; k x; k gA fØ; kdyki
dk flxpx xke] Vxk flxpx Cykd d Vxk rFkk
fd; kik xke e inf'kr fd; k x; kA if'peh dfex
fty d lDph [kk ty lHkj.k dk nlj o" d fy,
p; fur fd; k x; kA lHkh ty lHkj.k e pkj idkj d
Hk mi; kx r=>e] 0; ofLFkr] ,D; vkdYpj rFkk
gkexkMu vflrRo e gA ih vkj ,] vkj vkj , rFkk
lk'ukoyh fØ; kdyki dyMj r; kj fd; k x; kA
DokVe th vkb ,e e th ih , l lokbV dk mi; kx
djr g, enk fo'y" k.k] lDph [kk dh okf"kd
ifronu ifØ; k v/khu g tcf d Vxk ty lHkj.k l
, df=r vkdMk ijk gk x; k gA

df"k okfudh ic/ku rFkk mi; kfxrk io/ku d
{kjk vi lftir >e Hkfe e; mRikndrk of)

fd lkuk dh vku Qke vulU/ku e lghkfxrk
d fy, v/;; u LFky p; fur fd, x, A bPNd
fd lkuk d lFk mudh leL; kvk rFkk lHkkoukvk d
fy, ckrphr dh xBA ek leh; cktkj mRikn ij
vk/kkfjr mudh vkfFkd&lkeftd fLFkr dk
vfHkfyf[kr dju d fy, ,d i'ukoyh Hkh ijhf[kr
dh xBA mudh Qlyk d in'ku rFkk LFky ijh{k.kk
d fy, ; ktuk dk lghkfxrk eY; kdu fd; k x; kA
LFky r; kj fd, x, rFkk ijh{k.kk d y vkmV
fMtkbu fd, x, A

lefdr ik"kd ic/ku d v/khu df"k okfudh
vk/kkfjr [kk] mRikn e; x. koYkk rFkk mit
l/ /kkj

lRjk in'ku xke] pkpj] lKfuriij
xkyk?kkV] ddkjktkj] ukycjh de: lk rFkk uxko
fty l enk ueu rFkk ikni ueu %fHk.Mh] djy k]
[khjk bR; kfn% ,df=r fd, x, A Hkkfrd rFkk
jklk;fud x.k %ih ,p] ueh rRo] vxkfud dku]
QkLQkj l bR; kfn% rFkk 37 enk ueuk d vk; kMhu
rRo fo'y"kr fd, x, A ck l vk/kkfjr df"k Qlyk e
vk; kMhu ck; k&QkVhfQd'ku d fy, LFky ijh{k.k
lRjk tkjgV e LFkfkir fd, x, A ueu ,df=r
fd, x, rFkk fofHkUu mipkj d v/khu mud
vk; kMhu rRo fo'y" k.k fd, x, A ikjfhkd vkdMk d
vk/kkj ij ; g le> k x; k fd vk; kMhu rRo rFkk
vxkfud dku d chp lg lc/ k ldkjRed gA
tcf d vk; kMhu rRo rFkk ih ,p d chp lg lc/ k
udkjRed gA

'k" d {k=k d fy, vkfFkd : lk l 0; ogk; l rFkk
lefdr df"k okfudh ekMyk dk fodk l

,d df"k okfudh ekMy vxLr 2006 e
LFkfkir fd; k x; k rFkk xke g" k fcykj] ftyk
tk/kij e fd lku d [kr e ikf"kr fd; k x; kA gfj
[kkn d fy, [kr e fl lcfu; k ,D; yh; kV %kUpk%
mxk; k x; kA mYkj thfork of) rFkk Qly mRiknu
vkdMk vfHkfyf[kr ldfyr rFkk fo'y"kr fd; k
x; kA dkjfm; k feDl k dk in'ku cxxokuh Qly d
: lk e rFkk ik l kfi l flufj; k dk flYoh dYpj
itkr; k d : lk e in'ku mYke ik; k x; kA
dkyQk l ijee ekiu ikni u vf/kdre Åpkb iklr
dh %213 l-eh-% mld lk'pkr ih- flufj; k %203 l-eh-%
, - ,DIYl k %200 l-eh-% rFkk dkjfm; k feDl k
%183 l-eh-% jgh FkhA tcf d th- ekjfr; kuk u
fuEure Åpkb %117 l-eh-% iklr dhA

, - ,DIYl k e vf/kdre dkyj 0; k l] mld
lk'pkr dkfm; k ek; D l k %7-00 l-% dkyQk l ijee
ekiu %5-60 l-% rFkk ih- flufj; k %5-32 l-% FkA
fu; f=r dh ryuk e %fcuk Qlyk d % df"k okfudh
Hk [k.Mk e ikni of) rFkk mYkj thfork vf/kdre FkhA
o" k d nkjku xg mRiknu 14-03 dVy@g-
vfHkfyf[kr fd; k x; kA ikpo o" k e l h- ekiu rFkk



ekD/k o{k l ;ktu e xg Qly mRiknu de ik;k
x;kA

fgekpy in'k rFkk tEe d'ehj dh
fupyh igkfM;k e; df'k okfudh d; fy,
eyhuk vkckfj;k dk ifjp; rFkk in'ku ijh{k.k

ou mRikndrk lLFkku jkph d }kjk
ikp LFkkuk l eykbuk vkckfj;k d chtk dh
[kjhnlxgfd;k x;k rFkk ckn e lLFkku d QhYM
LV'kuk tk fd tkgju ¼ikV lfgc½ rFkk chjlyk l h
¼ukyx<½ tk Øe'k fljekj rFkk lkyu fty e
iMrk g] e ck, x,A ;g nkuk LV'ku jkT; d fuEu
igkMh lHkx e fLFkr g rFkk itkfr;k d jki.k
Hk.Mkj d mRiknu d fy, mi;kx fd, tkr gA
LFky lo{k.k d lk'pkr fuEu igkMh lHkx e pkj
LFkyk i:okyk rFkk dkV fgekpy in'k rFkk u/k
rFkk clrj cyk tEe rFkk d'ehj e 5 g- eki d
vfHkkr fd, x, rFkk jUMkekbTm Cykd fMtkbul
¼vkj ch Mh½ dk vuxeu djr g, i;kxRed ijh{k.k
LFkfr fd, x,A r;kj io of) vkdM n'kkr g fd
t h- vkckfj;k lHk v/; ;u LFkyk ij vPNk in'ku
dj jgk g rFkk viuh LFkkiuk d rhu o''kk d Hkhrj
250 l-eh- dh vkr Åpkb ikr dh gA ;g dguk
; lfi cgr tYnh gkxk fQj Hk itkfr;k d in'ku
dk /; ku e j[kr g, rFkk of) vkdM rFkk NkV pØ
vof/k d fo'k'k lHk l ;g nkuk vf/knf'kr jkT;k
dh fuEu igkfM;k e Hkfo"; d jki.k yxku d fy,
{kerkoku itkfr;k gk ldrh gA

gehjiij fty d; fo'k'k lHk d; lFk fgekpy
in'k e egRoi.k n'k't df'k okfudh itkfr;k;
l enk mojrkr Lrj ,o ik''kd ikflr dk
eY;kdu

lg lc/kk rFkk vu'k lkvk dk fodflr dju
d fy, df'k ou lo/kfud i.kkyh d ek=kRed
ijehVjk dk vfHkyf[kr fd;k x;kA ifj.kke n'kkr
g fd v/; ;u dju d fy, p;fur N% egRoi.k df'k
okfudh itkfr;k ¼ckjEckjrk >56%½ {k= e ikdfrd
:lk l ikb tku okyh df'k ou lo/kufud df'k
okfudh i.kkfy;k d vfHkUu vx Hk gA ,df=r enk
ueuk dk fo'yf'kr fd;k x;k vkj v/; ;u d vrxr
Åijh enk lLrjk e ukbVktu mPp n[kh xb] ft lu

ou mRikndrk

vf/kdk'k df'k okfudh itkfr;k e enk d fupy
lLrjk dh vkj gkl dh iofr dk fn[kk;kA enk
fo'y''k.k d ikjfhkd ifj.kke enk d mojrkr Lrj dk
cuk, j[ku e df'k okfudh itkfr;k dh ldkjRed
Hkfedk dk n'kkrh gA

N% egRoi.k df'k okfudh itkfr;k ;Fkk&
xhfo;k vkifVok] ekj l ,Yck] lyfVl vkLVfy l]
cgfu;k ojhxkVkj Vuk lhfY, Vj ,Ychft;k
fpuuf l l d [kjirokj e ik''kd rRo ijh{k.k ikjEHk
fd; x,A ik;kfxd {k= l ,df=r [kjirokj dk
vx fofHkUu [kjirokj Hkxk e iFkDdr fd;k x;kA
;g vkou e 80± 2° l ij vkou Mk; dh xb tc
rd fLFkj Hkx rd ugh igpk tk ldk rFkk fQj bl
foyfey e vxrj jkl;k;fud fo'y''k.k d fy, j[kk
x;kA egRoi.k df'k okfudh itkfr;k }kjk fyVj
mRiknu d ifj.kke l Kkr gvk fd xfo;k vkifVok]
ekj l ,Yck] lyfVl vkLVfy l] cgfu;k ojhxkVkj
Vuk flfy, Vj rFkk ,Ychft;k fpuuf l l fofHkUu
[kjirokj iHkktk }kjk lkyuk :lk l dkQh ek=k e
[kjirokj ikru e lg;kx djr gA df'k okfudh
itkfr;k d [kjirokj e ik''kd ek=kvk ij ifj.kke
u ikjfhkd :lk l n'kk;k fd bu N% egRoi.k df'k
okfudh itkfr;k e v/; ;u fd, x, ikp ik''kd
¼ukbVktu] QkLQkj l ikvf'k;e] dfy'k;e rFkk
exuf'k;e½ e l ,d dh lknrk mPp Fkh] tk
v/; ;u d vr e fofHkUu lg lc/kk@ifj.kke dk
iku e lg;k;gk ldrk gA v/; ;u d ifj.kke u
n'kk;k fd ik''kd dh ,d egRoi.k ek=k bu df'k
okfudh itkfr;k d }kjk Hkfe@enk dk okfi l ikr
gkrh gA

lkc/ku dk;l i.kkfy;k d; }kjk >kj[k.M e;
[kfur@vf/kHkjkj enkvk d; enk dku rFkk
ukbVktu vf/kxg.k {kerk dk c<kok

v/; ;u d fy, nk dk;yk vf/kHkjk LFkyk
;Fkk& f[kykfj l dk;yk [kku ¼l h l h ,y] jkph½ rFkk
flyfduh dk;yk [kku ¼ikboV ykb l l /kkjh }kjk
LokehRo ikr½ dk p;fur fd;k x;kA vf/kHkjk e
jki.k d fy, vdj mRiknu d fy, ik'k'kyk dh
LFkkiuk dh xBA vf/kHkjk enkvk l enk ueu ,df=r
fd, x, rFkk Hkkrd&jkl;k;fud x.kk dk fo'y''k.k
fd;k x;kA f[kykjh vf/kHkjkj enk e pkj o{k itkfr;k



d l k Fk ik= ijh{k.k i; kx ixfr ij g ft le oeh
dEikLV rFkk gfjr [kkn }kjk l/kkj fd;k x;k g
D; kfd vf/kHkkj enk dh vf/kdk'k ?kurk vf/kd gA
vf/kHkkj enkvk e 50% jr feykb xBA vdj.k rFkk
of) d l c/k e itkfr;k dk in'ku vfHkfyf[kr
fd;k x;k gA

2-2-4 ou enk rFkk Hk& l/kkj

tlo&bukdyIV d; }kjk vkD lkbV vif'k"Vk; dk
tlo&jhefM, 'ku

oKkfudk d ,d ny u jM eM mRiknu dk
lo{k.k dju d fy, fgUMkydk dk nkjk fd;kA jM
eM c;j ifØ;k d nkjku ink gkrk gA fgUMkydk
l [kku dh ifØ;k d lk'pkr ft l Mk; LVfdx vkQ
eM dgr g jM eM dk txyk d utnhd d {k=k e
MEi dj nrk gA jM eM ueuk dk ,df=r rFkk
fo'yf'kr fd;k x;kA to bukdyUV dk jM eM d
to&jhefM, 'ku ij iHkko dk v/; ; u fd;k x;k gA
tloviogu rFkk enk l/kkj d; }kjk ty Hkjh
cdkj Hkfe dk QkbVk&jhefM, 'ku

df'k mRiknk dh c<h rFkk /kkj.kh; mit d
fy, gky gh d o"kk e flpkb {kerk c<h gA ugj
flpkb d ifjp; u xkmM okVj lph e Åpkb yk;k
g ft l l ty Hkjo rFkk xk.k l yuhuh'k'ku gk jgk gA
oreku e l l kj dk ,d frgkb flfpr {k= ty Hkjo
d [krj dk l keuk dj jgk gA mYkj in'k e yxHkx
4981-43 ox fdykehVj {k= ty Hkjo l ihfMr g
ft l d ifj.kke Lo : lk mRikndrk e deh vk jgh gA
oreku v/; ; u dk y{; to vi?kVu itkfr;k d
jki.k }kjk ty Hk {k=k dk QkbVkjhehMV djuk gA
ioh mYkj in'k d ty Hkjo LFkyk dk lo{k.k fd;k
x;k g rFkk p;fur itkfr;k dh ik/k'kkyk LFkfr
dh xb gA

mYkj[k.M dh enk vkxifud dkc u lph

Dod l ouk d v/khu mYkj[k.M dh enkvk
e dy , l vk l h iy 36-95 fe- Vu] fefJr ou
36-22 fe- Vu] phM ou 24-10 fe- Vu] lky ou
18-30 fe- Vu] vuRiknd ctj Hkfe 15-01 fe- Vu]
flYoj Qj rFkk Li l ou 13-03 fe- Vu] nonkj ou
2-22 fe- Vu] dy ou 1-26 fe- Vu] ; dfyIV l ou

0-91 fe- Vu] Vhd ¼ l kxku½ ou 0-82 fe- Vu]
'kh'ke ou 0-50 fe- Vu] [kj ou 0-24 fe- Vu rFkk
lcl de lkbil ou 0-20 fe- Vu FkA ouk v/khu
dy , l vk l h iy tk fd ou foHkx d ik l g
¼244148041 g- {k=½ mYkj[k.M e 149-73 fe- Vu gA
x<oky l Hkx d ouk d v/khu 65-43 fe- Vu , l vk l h
iy Fkk ¼ tk fd mYkj[k.M d ouk e dy , l vk l h
iy dk 43-69% g½ ikd rFkk vH; kj. ; k v/khu enkvk
e 47-13 fe- Vu ¼ tk fd mYkj[k.M d ouk e dy
, l vk l h iy dk 31-48% g½ rFkk lcl de dekÅ
l Hkx e 37-17 fe- Vu g ¼ tk fd mYkj[k.M d ouk
e dy , l vk l h iy dk 24-83% g½A HkxhFkh
ldy e ouk v/khu enkvk e vf/kdre , l vk l h
iy Fkk ¼26-36 fe- Vu rFkk mYkj[k.M ouk d dy
, l vk l h iy dk 17-60%½ bld lk'pkr mYkj
dekÅ l dy ¼17-17 fe- Vu rFkk mYkj[k.M d ouk
d dy , l vk l h iy dk 11-47%½ if'peh l dy
¼16-32 fe- Vu rFkk mYkj[k.M d ouk d dy , l vk l h
iy dk 10-90%½ rFkk lcl de nf{k.k dekÅ l dy
¼3-69 fe- Vu rFkk mYkj[k.M d ouk d dy , l vk l h
iy dk 2-46%½ e FkA l c ckxkuk d v/khu enkvk e
, l vk l h iy 80-80 Vu g⁻¹] vkek e 50-69 Vu g⁻¹]
flVj l 47-55 Vu g⁻¹] yhph 44-92 Vu g⁻¹] rFkk
ve:n 40-21 Vu g⁻¹ FkA mYkj[k.M e ckxokuh
v/khu enkvk ¼193787 g- {k=½ e dy , l vk l h iy
10-75 fefy; u Vu FkA 2750 eh- Åpkb l uhp
d ?kk l d enkuk dh enkvk e , l vk l h iy
86-57 Vu g⁻¹ Fk tcf d 2750 Åpkb d Åij dh
enkvk e 143-76 Vu g⁻¹ FkA

mYkj[k.M e ?kk l Hkfe v/khu enkvk e dy
, l vk l h 26-77 fe- Vu FkA Cykd jki.k v/khu enkvk
e , l vk l h iy lkbil e vf/kdre 66-32 Vu g⁻¹
bld lk'pkr ; dfyIV l 46-39 Vu g⁻¹] phM
43-30 Vu g⁻¹] l kxku 42-93 Vu g⁻¹] 'kh'ke 37-67 Vu g⁻¹
rFkk lcl de ikiy v/khu 31-41 Vu g⁻¹ FkA
xUuk&ikiy l gk; d enkvk e , l vk l h iy
vf/kdre 33-48 Vu g⁻¹ Fk tcf d xg&ikiy ekMy
e ; g 24-81 Vu g⁻¹ FkA



mŷkj[k.M d: enk fuek.k ij Hk&foKku]
ouLifr rFkk tyok; dk lki{k iHkko

mŷkj&if'peh fgeky; d mŷkj[k.M d ou
lHkh idkj d iRFkj d fuek.kk dk ey g ftld
ifj.kkeLo: lk fofHkUu tyok;oh; lHkxk ij fofHkUu
enk rFkk ouLifr; k gA okfudh e [kfut h; v/; ;uk
dk cgr egRo gA t gk o{k of) yEch vof/k rd
pyrh jgrh g rFkk dkQh gn rd [kfut k ij enk e
ik"kd d lkr d : lk e fuHkj jgrh gA lQyrk dk
fu/kkj.k dju e fupyh mRiknd l kexh cgr
egRoi.k Hkfedk fuHkkrh g vFkok jki.kk e fofHkUu
tyok;oh; voLFkvvk ij fo'k"kdj fn, x, lky e
fo'k"kdj pØk dh l[; k ij iHkko Mkyrh gA ikni
ik"kd e[; : lk l [kfut k dh fonfjx l 0; RiUu
gkr gA enk mojr k Lrj dk eY; kdu dju rFkk
ogn mRiknu d fy, enkvk d ic/ku d fy,
okfudh vu lU/kku e Hk&foKku dk egRo cgr vf/kd
gA bl v/; ; u d egRo dk /; ku e j[kr g, ; g
v/; ; u mŷkj[k.M e fd; k x; kA

mŷkj[k.M e ikdfrd ouk dk ogn lo{k.k
fd; k x; kA mŷkj[k.M d ngjknu] fvgh x<oky]
ikMh x<oky] mŷkj[k.M] pekyh] : ni; kx rFkk
uuhky ftyk e fofHkUu ou ouLifr; k] Hk&foKku
Åpkb rFkk tyok; d vk/kkj ij mi; Dr LFky
p; fur fd, x, A iR; d LFky l rhu miLFky
p; fur fd, x, rFkk fofHkUu vkuof'kd lhekvv
; Fkk& 0&15 l-eh-] 15&30 l-eh-] 30&60 l-eh-]
60&90 l-eh- rFkk 90&120 l-eh- e enk cjek dh
lgk; rk l enk ueu ,df=r fd, x, A bl d lk'pkr
iR; d Lkhy l , d enk ueuk] enk d vkdkjdh;
x.kk dk v/; ; u dju d fy, [kk t dj fudky x, A
; ueu fofHkUu 'kkjhfd rFkk jk l k; fud x.kk d fy,
fo'yf'kr fd, x, A leku rFkk fofHkUu ouLifr rFkk
Hkxkfud jpuvk oky iRFkj d ueu fofHkUu ueuk
fcnvk l ,df=r fd, x, A iR; d ueuk fcn e
mi; Dr l[; k d 10 x 10eh- DokMjVI yxk, x,
rFkk DokMjVI d e/; d o{k Mh ch , p] Åpkb rFkk
f'k[kj {k= d fy, fxu t k, xA igy ,df=r dh xb

ou mRiknd rk

enk rFkk iRFkj d ueuk d fofHkUu Hkkrd&
jk l k; fud x.kk dk fo'yf'kr fd; k x; k gA

gfj; k.kk e fofHkUu Hk&mi; kxk v/khu enk
vxfud dku LVkj

enk vxfud dku] of'od dku pØ dk
, d cgr egRoi.k ?kVd gA ; g , Fkkiktud
fØ; kdykik d ifr cgr lonu'khy g vkj ; g
, Fkkiktud : dkoVt l Hk&mi; kx ifjoru rFkk
[krh } kj igy gh t t j gk pdk gA Hkfe dk mi; kx
fofHkUu mnn'; k ; Fkk& okfudh] df'k] df'k okfudh]
pjxkgk] cxxokuh] jki.kk] vkok l bR; kfn d fy,
mi; kx fd; k tkrk gA Hk&mi; kx rFkk enk ic/ku
dk; i.kkyh egRoi.k : lk l enk vxfud dku
xfrdh dk iHkfor dj ldrh gA , d le; vof/k e
vk, ifjoruk dk [kk tu rFkk vxk dFku d fy,
enk dku dh lgh ek=k dk fu/kkj.k vko'; d gA
lfgR; e vf/kdk'k vkDMk ifr'kr enk vxfud
dku d : lk e g tc dHkh bl enk vxfud dku
iy@LVkj e ifjofrr fd; k tkrk g dN /kkj.kk,
fo'k"kdj enk d Hkkr dk vkdyu dju d fy,
mi; kx djuh iMrh gA gfj; k.kk e , l vk l h iy
dk vkdyu dju d fy, u rk ouk e vkj u gh vU;
Hk&mi; kx e dkb 0; ofLFkr v/; ; u fd; k x; kA vrh
gfj; k.kk e fofHkUu Hk&mi; kxk e , l vk l h iy dk
vkdyu dju d fy, ; g ifj; ktuk ikjEHk dh xb
gA fofHkUu Hk&mi; kx e , l vk l h LVkj ij bl
ifj; ktuk l mRiUu dh xb lpuk Hkfo"; dh [kk t k
d fy, , d cpek d lpuk d : lk e dk; djxh rFkk
tyok; ifjoru d bl cgr egRoi.k igy ij
ik l fxd lpuk miyC/k dj k, xA

bl ifj; ktuk e enk vxfud dku dk
pkj Hk&mi; kxk ; Fkk& ouk] Cykd jki.kk] df'k
okfudh rFkk cxxokuh Hk&mi; kx d v/khu vkdfyr
fd; k t k jgk gA gfj; k.kk e bl o'k fofHkUu ftyk
; Fkk& fHkoku] egx<] jkgrd] >k> j rFkk ; eukuxj e
lo{k.k fd; k x; kA fofHkUu LFkkuk ij LFkyk dk p; u
fd; k x; k rFkk ouk] jki.kk] df'k okfudh rFkk
cxxokuh Hk&mi; kxk d v/khu enk ueu ,df=r



fd, x, A l Hkh miyC/k Hk&mi; kxk ; Fkk& ouk] jki.kk] df"okxfudh rFkk cxxokuh e mi; Dr dfFkr gfj; k.kk d ftyk e ifrfuf/k LFkyk dk p; u fd; k x; kA 2010&11 d nkjku fofHkUu Hk&mi; kxk l enk vxfud dkc u vkdyu d fy, 1000 l dN Åij enk ueu, df=r fd, x, rFkk 150 l vf/kd LFkkuk l vf/kdk'k ?kuRo rFkk [k]nj VdMk dk vkdyu fd; k x; kA

ckxMh fu; f=r {k= ¼ tcyij] e/; in:'k½ e; tio&miogu d fy, mi; Dr o{k itkfr; k rFkk vU; ouLifr dh igpku

fofHkUu okuLifrd l/kuk d }kjk enk d Qkyr ty dk ty Hkjk o@ugj lko {k=k e miogu dju rFkk ckxMh fu; f=r {k=} tcyij d ck, fdukj dh ugj lgr LFky dh mRikndrk dk c<ku d mnn'; l v/; ; u fd; k x; kA ugj d ikl jkfir dh xb lkr o{k itkfr; k e l ; dfy lV l gkbchM ¼, Q vkj vkb&4 rFkk , Q vkj vkb&5 Dyku½ bld lk'pkr Vehufy; k vtuk rFkk ikxfe; k fiUukVk u mudh of) rFkk to it rFkk fu; fer : lk l i" k.k v/khu dvk l ekfir] ty lph dk de dju e cf<; k in'ku fd; kA LFky ijh{k.k dk vulj.k dju d fy, fd, x, ykbf l efVd i; kxk u Hkh ; gh io fr fn[kkbA

vf/kHkkj oky: Mi:k ij o{k k dh l/kjh gbi of) d l efdr i k'kd ic/ku

i; kx d fy, vf/kHkkj oky dk; yk [kku dk p; u dju d fy, if'peh dk; yk fQYM fy- tkukj fM; k d dugu l Hkkx] rFkk if'peh dk; yk fQYM fy- f'koijh {k= d ip {k= e lo{k.k fd, x, A f'koijh vk iu dklV ekbu&1 i; kx d fy, p; fur dh xBA p; fur LFky l vf/kHkkj ueu, df=r fd, x, rFkk ueuk dk mudh Hkkfrd jklk; fud x.kk ; Fkk& xBu] vf/kdk'k ?kurk] ih , p] b lh vxfud dkc u miyC/k , u ih d d'ku , DLkpt {kerk] fofu; e ; kx; l h ,] , e th] miyC/k l {e i k'kd ; Fkk] , Q b] , e , u] tM , u rFkk l h ; d fy, fo'yf'kr fd, x, A p; fur i t kfr; k ; Fkk& , Ychft ; k fyukccd] , df'k; k vkjhd yH Qkfe l] dfl ; k l kfe ; k] MykfuD l jhft ; k] , Ecfydk

vkQh'khufy l] efX t Qjk bfMd k] ekfj xk vkyh Qjk] MUMk dyke l fLVdV l] Vfeufy; k cyhfjd k rFkk eyhuk vkckjh; k d ch t v d j mxku d fy, ikyh c x k e c k , x , A v d j k d k i k / k ' k k y k e i k f ' k r f d ; k x ; k A v x r j d k ; i x f r v / k h u g A

dkcu vf/kxg.k rFkk vkt hfodk fodkl d; l nHk e {kerkoku ck l i t kfr ; k } k j k > e Hkfe i u o k l

dkjch , xykx ftyk v l e e p ; fur LFkyk e rhu fofHkUu ck l i t kfr ; k iohQky; k cEc / k ckYdvk] ch- U ; VU l rFkk vkD l h- , u , U F k k d j k i . k y x k , x , A L F k y k d k p ; u e k u d k t l f d l k u k d h b P N k] fuEuhdr > e Hkfe dh fLFkr] vuJo.k d fy, vk l kuh l i g p d v k / k k j i j f d ; k x ; k A i f j ; k t u k L F k y d H k & f u n ' k k d v f H k f y f [k r f d , x , r F k k x x y v F k } k j k i k l r f p = i j i f r f p = . k f d ; k x ; k A o g n l o { k . k } k j k c k l l l k / k u k d k i y [k u f d ; k x ; k A f u ; f e r v r j k y i j f o f H k U u c k l i t k f r ; k d f o f H k U u v r j k y d l k F k i x f r ' k h y o f) v k d M i k n i r F k k e n k d k c u] v f / k d k ' k ? k u r k r F k k t o i t v k d y u f d ; k x ; k A i f j . k k e k u Ø e ' k k c h - c k y d v k r F k k m l d l k ' p k r v k - i o h Q k y ; k r F k k c h - U ; V U l e m P p r e i k n i d k c u e Y ; f n [k k ; k A o f) r F k k t o i t v k d y u u H k h o g h i o f r f n [k k r h g A v / ; ; u d n l j o " k r d e n k d k c u r F k k v f / k d k ' k ? k u r k d l n H k e d k b e g R o i . k v r j u g h n [k k x ; k A

mUukr o{k jki.k rdudh k vkj ou lo/ku pjxkgh v/; ; u }kjk dPN e; yo.kh; ctj Hkfe; k dh mRikndrk c<kuk

mi; Dr fon'kh rFkk n'kt pkjk ikni i t kfr ; k d k l g h j k i . k d k ; i . k k f y ; k l g r [k k t u d f y , t y k b 2007 e d k j / k k] i V u k e l H k h j t] x t j k r e o k b Y M , l l p ; j h ¼ M C Y ; , , l ½ d f d u k j d k y h f l Y V h f e V V h e n k x g j k b 40 & 75 l - e h - i j , d f ' k ; k , E i y h l l l] , - o k b o u k l k ¼ f o n ' k h ½ r F k k l Y o k M j k i l h d k ¼ n ' k t ½ d l k F k v u l U / k k u i j h { k . k f d , x , A , l - i j l h d k m P p y o . k r k n k f u j r j x f e ; k d e k l e ¼ 2009 & 2010 ½ d l k ' p k r x e h d k r u k o r F k k , d v d k y o " k d h v f r d B k j v o L F k k v k e f c u k f d l h u d l k u d k > y r g , r F k k m l h m Y k j t h f o r k d k ¼ 91 - 5 % ½ d j k i . k d 45 e k g c k n H k h



cuk, j[kr g, lokŸke itkfr iekf.kr gb ga lfn;k ½2009½ e 50 ifr'kr NVkb d dkj.k ty ruko ugh gvka , - fcohuk l k] ,d xeh dk ekle rFkk ,d vdky o" k d lkFk 30 eghuk e 77-3% mŸkj thfork d lkFk nlj LFkku ij jghA gkykfd xfe;k 2010 e mŸkj thfork egRo i.k : lk l de gb rFkk 45 eghuk e 46-3% vfHkfyf[kr dh xba , - ,Eiyh lll dh mŸkj thfork fu;=.k e 06-0% rFkk Vh3 ¼xg Hk l k½ mipkj e 18-7% d lkFk rth l 12-7% rd de gbA vkerkj ij nkuk ,df'k;k i tkfr ;k e mFkyh enk xgjk e mPp eR; rk FkhA

, l- i l h d k u NVkb d lk'pkr Åpkb iklr dh rFkk vk l r c<kŸkj h 12-1% FkhA mPp eR; rk dk >yu d ckt n] thfor , - fcfouk l k u l Hkh mipkjk e yEckb iklr dh ¼vk l r 12-6 l - eh - ½A gkykfd i .k 0 ; k l e dkb of) ugh FkhA mipkjk u to it mit dk i Hkkfor fd ; k rFkk fu ; f = r ¼3-43 fdykxke½ dh ryuk e l Hkh mipkjk u mPpre to it vfHkfyf[kr



vdf'k;k fcfouk l k ¼Å i j ½ l YokMkj i l h d k ¼u h p ½ Øe'k 38 rFkk 46 eghuk d ckn ued i Hkkfor {k=k e



t k b x k Q k b y e f l E i y D l ¼ i V y k u h ½



Vojuh; jk D; u h Q k f y ; k ¼ t k F h e k F k ½

fd;kA vf/kdre 12-68 fd-xk- to it mit Vh₃ mipkj l iklr dh rFkk mld lk'pkr 10-22 fd-xk- Vh₂ ¼, Q okb ,e½ mipkj l iklr dh xba

l E i . k i ; k x k R e d { k = e ; k) f P N d D o k M j V l ¼ l e h x l e h ½ cukdj gfjr ? k k l & H k k j d k v / ; ; u f d ; k x ; k A c g r v f / k d o " k k f t l l t y H k j k o r F k k l k Y V y h f p x g b d d k j . k i k n i i t k f r ; k d c h p o " k 2010&11 d n k j k u g y k Q k b V i / k k u u g h F k A ? k k l i H k k o h F k h r F k k D y k f j l f o j x k V k l c l i / k k u i t k f r ; k F k h r F k k m l d l k ' p k r M D V h y k d V u h ; e , x h i V h d e j d k ; u k M e M D V h y k u j , j h L V h M k i t k f r l k b i V h d e i t k f r r F k k , D g h u k p y k v k d y k u e j L i k j k c k y l i t k f r i g y h c k j f n [k k b n h A c f V ; k d c h p t k b x k Q k b y e f l E i y D l l c l i / k k u F k h A



V
t h- ekfjf'k; kuk



C
I h- I hfy, fjl rFkk dkjfm; k ?kkjQ



I
ekdhjk;] Hk t e ou foKku dUn
if'k{kvk dk LFky nkjk

m l d Ik'pkr VoI hjk D; uh; kQkfy; k $\frac{1}{4}$ t kFkh ekFk $\frac{1}{2}$
LoMk YVhd k I k] oukfu; k flufj; k rFkk ikyhxyk
bfj; k iVjk FkhA

dy 406 xke² mit vfhkfyf[kr dh xb
gkykfd] o{k i tkfrokj] ifjoru vfhkfyf[kr fd,
x, rFkk ;g 419-0 xke² $\frac{1}{4}$, - fcfouk I k $\frac{1}{2}$ 391-2 xke²
 $\frac{1}{4}$, I- ij I h d k $\frac{1}{2}$ rFkk 357-9 xke mFky tyHkjko {k=
e FkhA

ou I o/ku pjxkgh v/; ; u % pkj o{k i tkfr; k
; Fkk& dkfM; k ?kkjQ] ik I kfi l flufj; k] ft t h Q I
ekfjf'k; kuk rFkk dk y k Q k L i j e e k i u rFkk nk
?kk I i tkfr; k t l p u p l f l y v k f j l rFkk
I h- I V h x h j l d I k F k v k j c h M h e r h u i f r d f r; k e
ekphjk;] Hk t e t y k b 2006 e i j h { k . k f d , x , A

mYkj t h f o r k % n k u k i ; k x k e 52 e g h u k e
I h- I V h t h j l e mYkj t h f o r k 93-8% rFkk
I h- f l y , f j l e 92-6% FkhA ?kk I rFkk fu; f=r
mipkj e d k b e g R o i . k v r j u g h F k k A i t k f r o k j
d k f M ; k x k j Q u m P p r e 98-6% mYkj t h f o r k b l d
Ik'pkr t M - e k f j f ' k ; k u k $\frac{1}{4}$ 92-1% $\frac{1}{2}$ rFkk i h- f l u f j ; k
 $\frac{1}{4}$ 88-8% $\frac{1}{2}$ FkhA

Åpkb% ikni i tkfr; k 38&52 eg hu dh v o f / k e
Åpkb i k l r d j r g A f u ; f = r r F k k ? k k I m i p k j k d
I k F k I h- I h f y , f j l Ø e ' k k 7-1 r F k k 9-3% d h
r y u k e I h- I V h t h j l d h v k l r c < h g b Å p k b
13-7 r F k k 23-5% F k h A I h- I V h t h j l m i p k j e ? k k I
m i p k j d h r y u k $\frac{1}{4}$ 148-3% $\frac{1}{2}$ e f u ; f = r i k n i k d f y ,
v k l r Å p k b 188-2% I v f / k d F k h t c f d b l d
m Y V e I h- f l y h , f j l $\frac{1}{4}$ f u ; f = r $\frac{1}{4}$ 184-9 I - e h - $\frac{1}{2}$ r F k k
? k k I m i p k j k d I k F k $\frac{1}{4}$ 166-5 I - e h - $\frac{1}{2}$ F k h A b l v o f / k d
n k j k u i t k f r o k j t h- e k f j f ' k ; k u k r F k k I h- ? k k j Q u

I e k u v k l r Å p k b $\frac{1}{4}$ 221-0 I - e h - $\frac{1}{2}$ r F k k b l d I k ' p k r
i h- f l u f j ; k $\frac{1}{4}$ 745 I - e h - $\frac{1}{2}$ F k h] ;) f i c < h g b Å p k b
i h- f l u f j ; k e v f / k d r e F k h $\frac{1}{4}$ f p = 4 $\frac{1}{2}$ A

' k h ' k i 0 ; k l % o ' k 2010 e v P N h o ' k k d I k ' p k r
52 e g h u k d I k ' p k r ' k h ' k 0 ; k l I h- I V h t h j l r F k k
I h- f l y , f j l i ; k x k e c < h g b ' k h ' k o f) Ø e ' k k
20-0 r F k k 32-7% r F k k 6-7 r F k k 9-9% f u ; f = r r F k k
? k k I m i p k j k d I k F k F k h A I h- ? k k j Q $\frac{1}{4}$ 190-0 I - e h - $\frac{1}{2}$
r F k k i h- f l u f j ; k $\frac{1}{4}$ 63-2 I - e h - $\frac{1}{2}$ d h r y u k e t M -
e k f j f ' k ; k u k u e g R o i . k ' k h ' k o f) $\frac{1}{4}$ 211-3 I - e h - $\frac{1}{2}$ i k l r
d j u k t k j h j [k k A v M r h l e g h u k e o f) d h r y u k e
b l u I h- I V h t h j l r F k k I h- f l y h v k f j l d I k F k
Ø e ' k k 81 r F k k 22-3% c < h g b ' k h ' k o f) ? k k I m i p k j
r F k k 41-5 r F k k 10-3% f u ; f = r e v f h k f y f [k r d h
t c f d b l h v o f / k e I h- ? k k j Q d f y , ; g 6-0 r F k k
0 r F k k 4-6 r F k k 4-3% e k = F k h A

g j h ? k k I m i t % y E c h x e h u e k u l u e n j h d h r F k k
b l d I k ' p k r e l y k / k k j o ' k k g b f t l d d k j . k t y
v i o k g g v k f t l u n k u k i ; k x k e 2010 e g j h ? k k I
m i t d k c j h r j g l i H k k f o r f d ; k A ; g
I h- f l y , f j l r F k k I h- I V h t h j l e Ø e ' k k
0-67 r F k k 0-45 f d . x - @ e h ² F k h A

H k k f r d j k l k ; f u d x . k % e k p 2010 e e n k u e u
, d f = r f d , x , A I h- f l y h v k f j l d e k e y e i k n i
x < < e r F k k i k n i x < < I 2 e h - n j h i j n k u k e n k
i j r k d f y , $\frac{1}{4}$ 0&25 r F k k 25&50 I - e h - $\frac{1}{2}$ d i h , p
e Y ; I k e k U ; j t e $\frac{1}{4}$ > 8-2 $\frac{1}{2}$ F k k A g k y k f d
I h- I V h t h j l d I k F k i h , p r F k k i k n i x < < d
H k h r j b I h d f y , e Y ; g Y d Å p F k A L F k y , d f = r
t y e n c k o d d k j . k e n k I y o . k k d k t y h ;
v i ? k V u g k x ; k A



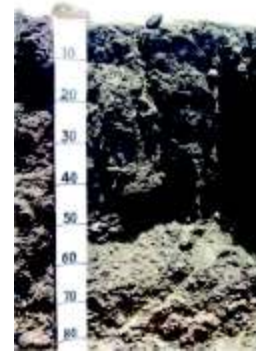
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vfHkyf[kr fd; kA ij l V , l vk l h eY; 2eh- njh
ij fu;f=r d fy, ikni x<< rFkk ?kk l mipkjk d
edkcy e nkuk enk xgjb;k d fy, vf/kdre Fkka

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¼xkM ou j{kdk] vkj , Q vk rFkk , l h , Q½ d rhu
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dk LFky nkjk vk; kft r fd; k x; kA

jktLFkku dh ou; enkvk dk y{k.k o.ku , o
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y{k.k o.ku rFkk oxhdj.k dju d mnn'; d l kFk
2007 e ikjHk dh xBA fjikfVx vof/k d nkju 207
ou Cykdk dk doj djr g, fprkMx<] HkhyokMk]
t l yej] cju] Vkd] vyoj] Hkjrij] Mxjij]
t; ij] irkix<] tk/kij rFkk jkt l en ftyk e
215 LFkkuk ij enk ikQbyk dk v/; ; u fd; k x; kA
12 ftyk dk doj djr g, 780 l iyk d fy, enk
ljpuk] <kpk] xk<kiu] jx] ih , p] byDVhdy
pkyDrk] vkxfud dkcui , u vk₃ rFkk , u vk₄&
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cm jrhy mYkj if'peh l Hkx e] enk, idfr e
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rRo 60 l 93% rd fHkUu gkr gA ioh rFkk nf{k.kh
ftyk e enk, idfr e rVLFk l {kkjh; gA jrhyh
feVvh yke ¼22% feVvh rRo½ dh J.kh e enk
ljpuk nkeV jrhyh l jrhyh nkeV d chp e dN
enkvk d l kFk gkrh gA mPpre enk rRo 32%
cmhdbj nk l k rFkk xvkikMk] c lokMk e ikb xBA
dy 46% enk jrhyh nkeV ikb xB] 29% nkeV
jrhyh] 20% jrhyh] 3% jrhyh fpdyh nkeV] 1-5%
nkeV rFkk 0-5% fpdyh nkeV ikb xBA l keU; rkj
ij if'peh ftyk dh enk, ukbVktu rFkk QkLQkj l
e detkj gA miyC/k ukbVktu rFkk QkLQkj l
Øe'k 7&42 fd-x-g⁸¹ irkix< 8&56 g⁸¹ d chp

ou mRikndrk



xvkikMk ou Cykd] c lokMk e fpduh feVvh ¼Äij½
rFkk Hkfe ¼uhp½

rd fHkUu Fkka fp=hekrk Cykd dh enkvk e
mPp ukbVktu ¼86 fd-xk- g^{81½} rFkk QkLQkj l
¼78 fd-xk- g^{81½} rRo gA

jktLFkku d fuEu vjkoyh e vkdyu rFkk
iuLFkkiu d fy, enk ouLifr l c/kk rFkk
l pd i t kfr; k dh igpku

;g ifj;ktuk bu mnn'; k ¼1½ fofHkUu ey
l kexh l ink gb enk d Hkkrfd x.kk rFkk ik"kd
Lrj dk v/; ; u ¼2½ Hkiru rFkk iuLFkkiu dk; Øe
e bld mi; kx d fy, i/kku enk ueuk ij
okuLifrd <kpk rFkk l pd i t kfr; k ij v/; ; u d
l kFk ikjHk dh xBA v/; ; u LFky ikp fofHkUu LFkkuk
dk doj djr g, fHkUu o"kk d l kFk t l jktLFkku e
oulokMk ¼ckjk unjk [kk ou Cykd½ jktklen
¼lckfy; k ou Cykd½ rFkk ikyh ¼ck[kkM ou Cykd½
rFkk xtjkr e lkcjdB ¼ekrhekjh ou Cykd½ rFkk
ikyuij ¼f=l fy; k ou Cykd½ gA 0; ofLFkr ueuk
p; u dk vulj.k djr g, , d ox fd-eh- {k= e
, d g- d 25 Hk[k.M cuk, x, A o{kk rFkk >kM; k dh
l [; k dk fxuk x; k rFkk cLV gkbV] Økmu LiM rFkk
Åpkb ij 0; k l d fy, ekik x; kA ckjk unjk [kk



LFky u o{k i tkfr; k dh lokÿke l [; k] i tkfr; k dh lEiUurk rFkk i tkfr; k dh leryrk fn[kkbA mPpre o{k tul [; k ¼32-48 o{k 0-1 g^{81½} rFkk i tkfr; k dh fofHkUurk ¼1-08½ f=lfy; k e Fkh tcf d mPpre o{k iHkrk ¼0-54½ ekrhejh ou Cykd e FkhA VDVkuk xFUM l] yfu; k dkjkeMfydk] ,ukft l l iMyk] jkbv; k fvdVkfj; k rFkk VDVkuk xFUM l Øe'k clocMk] jktklen] ikyh] ikyuij rFkk lkcjdukFkk LFky e i/kku o{k i tkfr; k FkhA dy i tkfr; k dh l [; k clocMk LFky e mPpre ¼12g^{81½} Fkh ijr i tkfr; k dh tul [; k ekrhejh ou Cykd e mPpre ¼95-56 o{k 0-1 g^{81½} FkhA i tkfr; k dh lEiUurk ¼0-57½ rFkk fofHkUurk ¼1-18½ ckjokM ou Cykd e mPpre Fkh tcf d >kfM; k dh iHkrk ¼0-84½ f=lfy; k ou Cykd e FkhA xtjkr e nkuk LFky ukbDVfkh l vkjckj& fvfLV l >kMh i/kku d :lk e tcf d jktLFkku e Øe'k ckjokM culokMk rFkk



xtjkr e ikyuij iHkx e vEckth d fudV jkbv; k fvdVkfj; k o{k ¼1½ dh i/kkurk okyk f=lfy; k ou Cykd rFkk xMMk [kknuk rFkk of) rFkk fofHkUurk v/; ; u ¼uhp½

jkt len LFky ; Qkjfc; k dkMh l hñtykb; k] yUVkuk dekjk rFkk j l ekb l kjfU l l i/kku FkhA

>kj [k. M e: NkVukxij iBkj dh fuEuhdr ou enkvk d fy, i tkfr; k dh mi; Drrk rFkk iu#) kj j.kuhfr

LFky ijh{k.kk d fy, 0-10 g- ik/k'kkyk fodflr dh xb rFkk 2-41 g- Hkfe r; kj dh xb rFkk i tkfr; k dh mi; Drrk v/; ; u d fy, 60 i tkfr; k d 100&150 vdj rFkk fuEuhdr enkvk d iu#) kj d fy, th- vkckfj; k d 2000 vdj] 1000 e/kdk bfMd k rFkk 1000 vdj ikxfe; k fiUukV k d mxk, x, A mi; Dr i tkfr; k d lFk o{k jki. k d }kj k fuEuhdr LFkyk dk iuLFkku rFkk iu#) kj enk l/kkj vkfkd ikflr] ikfjLFkfrdh; fLFkjr rFkk Hk&lnjrk l vk'kk cuk, j[krk gA vr% NkVukxij iBkj dh fuEuhdr enk d lFk lcf/kr voj/kk ij fopkj dju dk oreku ifj; ktuk d mnn'; ik lfxd gA l k B i tkfr; k d lFk voykdu d pkj l T; knk o'kk e geu l Hkx dh fuEuhdr enk e vPNk in'ku dj jgh 21 i tkfr; k dk NkV k gA ,u ih d dh mPp ek=k ¼50%30%30 xk- 1 l 2 o" d fy, rFkk 100%50%50 xke 3 o"kh; th- vkjckfj; k] ,e- bfMd k rFkk ih- fiUukV k d fy, ¼1-5 xke [kkn lfr ,d l nk o" d fy, rFkk ,d l rhu o" d ifr ikni d fy, ch ,Q b] ,e ,u] tM ,u] 25 ,e th] l h ; rFkk 2-5 ,e vk ifr ,e th lfr llyhefVM 3 o" d fy, 3-00 fd-xk- l keU; of) d fy, vko'; d gA puk ; k MykekbV l puk djuk ik"kd ikflr dk c<krk g tk ih- fiUukV k rFkk ,e- bfMd k }kj k fy; k tkrk g rFkk mudh of) dk c<krk gA vk ,e vfrfjDrrk th- vkckjh; k d v/khu enk ueh Lrj dk c<krk gA vkjk feVvh rFkk pkoy Hk l h d lFk vkj vf/kd gk tkrk g ijr l hfer vof/k ¼25&35 fnuk d fy, ¼ d fy, puk ih- fiUukV k rFkk ,e- bfMd k d rgr enk ueh dk vkj vf/kd de djrk gA

0; k k fjd mRiknu d fy, de eY; dh le) oehdEikLV dk fodkl

,Q vkj l h enkj e ,d LFkbb de eY; okyh oehdEikLV ,dd dh LFkku dh xb gA l/kkj



vui;kxk ¼ry dh pdh;k] exh [kkuk [kkn rFkk QkLQkcDVhfj;k½ }kjk oehdEikLV d ik"kd rRo e egRoi.k :lk l of) gb gA [kk] Qlyk t l vky] VekVj] eyh rFkk chU l ¼le½ ij dEikLV rFkk mojdk d l kFk le) oehdEikLV dk fofHkUu ek=k e i;kx fd;k x;k rFkk mld iHkko iyf[kr fd, x, A le) oehdEikLV @ 5 Vu@g- rFkk 10 Vu@g- u [kk] Qlyk dh of) rFkk mit ij mPp egRoi.k ifj.kke fn[kk, ga oehdEikLV dk ik= ehfM;k d ,d egRoi.k rRo d :lk e i;kx fd;k tkrk ga X;kjg ,d fno l h; if'k{k.kk d }kjk 200 LFkkuh; fd l kuk dk le) oehdEikLV mRiknu rdudh inku dh xBA LFky ij h{k.kk d ifj.kke Hkh fd l kuk dk inf'kr fd, x, A

2-2-5 ty l Hkj ic/k

vjkoyh j t k e i viokg {kfr;k d fu;=.k vkj tloek=k mRikndrk c<ku e o"kk ty lp;u mik;k dh {kerk ,o vFkO; oLFkk

rhu o"kk rd jk t LFkku ou fohkx dh vkfFkd l gk;rk d }kjk i;kx tykb 2005 e ikjHk fd, x, rFkk mld lk'pkr Hkk-ok-v-f'k-i- }kjk bu mnn';k ¼1½ fofHkUu LFkykdfv voLFkVk e viokg {kfr;k d fu;=.k e fofHkUu ty lp;uk dh {kerk ¼vkj MCY; ,e½ dk v/;;u djuk ¼2½ toek=k mRikndrk ij fofHkUu ty lp;u mik;k d iHkko dk v/;;u djuk rFkk ¼3½ cm ieku ij vkj MCY; ,p mik;k dk vxhdr dju ij mudh vkfFkd 0;ogk;rk dk v/;;u djuk dk /;ku e j[kk x;kA bld fy, 700 ox eh- d dy 75 Hk[k.Mk dk fu;f=r] dUVj [kkb] xMkuh] ckDI [kkb rFkk oh&fMp lp;u mik;k d l kFk 0&10] 10&20 rFkk >20% e r;kj fd;k x;kA fofHkUu itkfr;k d v d j jkfir fd, x, rFkk viokg ekid mik; l LFkfkfir fd, x, A v/;;u vof/k d ij le; e ikni of)] enk ik"kd] viogu rFkk ik"kd {kfr] enk ty rRo rFkk ouLifr fof/krk rFkk mRikndrk dk vfHkfyf[kr fd;k x;kA

pkj o"kk d ,df=r vkdM u dy o"kk dk vk l r 12-58% viogu fn[kk;kA <10% <ky e oh&fMp rFkk dUVj [kkb e 10&20 rFkk >20% {k=

viogu dk fu;f=r dju d fy, iHkko o"kk ty lp;u mipkj gA <10% >ky l 10-22% dh ryuk e 10&20% <ky {k= e 14-63 viogu Fkk rFkk >20% <ky {k= d dy o"kk dk 12-90% FkkA mipkj e vf/kdre viogu ¼13-55%½ fu;f=r Hk[k.Mk e Fkk t cfd fuEure ty {kfr oh&fMu Hk[k.Mk ¼11-05%½ e FkhA l Ei.k enk {kfr dk 3-43] 2-40] 1-21] 0-90] 0-24 rFkk 0-19 xke enk 1^{&1} Øe'kkl fl rEcj 2005] tykb 2006] vDVcj 2006] tykb 2007] vxLr 2007] rFkk tykb 2009 e ty {k= l voykfd r fd;k x;kA blu {k= e c<h gb ouLifr vkPNknu d v/khu ifr y h Vj ty {kfr e enk {kfr d ?kVr g, :>ku dk l dfr fd;k gA

c<rh gb ouLifr tehuh lrg ij igp jgh ih , vkj dk iHkfor djrh g RkFkk ih , vkj e vf/kdre deh 2010 e o{k rFkk vk"v/kh; ouLifr nkuk d }kjk gb ¼fp= 1¼A enk ty tk ekulu vof/k e fof/k ouLifr d iHkko v/khu l Hkky dj j[kk x;k Fkk ju QM vof/k e iHkko :lk e mi;kx fd;k x;kA tu 2005 dh ryuk e tu 2010 e enk ih ,p] b l h rFkk ukbVktu e deh rFkk ih vk₄ih ¼2-04&QkYM }kjk½ e c<kYkj h FkhA <10% <ky dh ryuk e >20% <ky e ukbVktu l ?kruk de ¼9-7% rd½ Fkh t cfd ih vk₄ ih e c<kYkj h FkhA enk ih ,p] b l h] rFkk miyC/k ukbVktu e fxjkoV Øe'kkl xMkuh dUVj [kkb rFkk fu;f=r Hk[k.Mk e vf/kdre Fkh ijr ih vk₄ ih dh l ?kurk fu;f=r Hk[k.Mk e vf/kdre FkhA

ty lp;u d vui;kx u ikni of) e l/kkj fd;kA enk x.k lcl i/kku ?kVd g t k mYkj thfork rFkk of) dk iHkfor dj jg g] u 10&20% <ky ¼mFkyh ykeh jrh y h enk½ dh ryuk e >20% <ky e ¼i.kr;k :lk l Hkjjh rFkk vPNh rjg l fupMh enk½ ,df'k;k dVp dh Åpkb rFkk dkyj of) rFkk , - bfMdk] b- vkQhf lufy l rFkk tM- ekjhfv;kuk dh Åpkb dk l dfr fd;kA ikni of) ruk ,e , vkb fu;f=r Hk[k.Mk e fuEu Fkh ijr xMkuh <pk ikni of) d fy, cdkj FkkA mPpre ,e , vkb d l kFk ikni yEc Fk] l h Vh Hk[k.Mk e Åpkb d fy,] ijr ?kurk ch Vh Hk[k.Mk e ryukRed :lk l



vf/kdre FkA MUMkdyeI fLVDVI] ,fEcydk vkQhIhufyI] ftt hQI ekf'k;kuk] gkykIVfy;k bVhxhQkfy;k rFkk lkbthft;eD;feuh dUVj [kkb d fy, lcl mi;Dr FkA ,df'k;k dVp rFkk vt kMhjDVk bfMdk oh Mh <kp d fy, lcl mi;Dr rFkk eyhuk vkckjh;k ch Vh o"kk ty lp;u <pk d fy, lcl mi;Dr FkA jkpd :lk l ,df'k;k dh l Hkh itkfr;k pkg jfir dh xb gk ;k nckjk ink dh xb gk u oh&fMp o"kk ty lp;u mipkj e lokYke in'ku fd;kA

2005 e vk"kf/k;k rFkk ?kk l itkfr;k dh l [;k 39 l c< dj i;kx d vr rd 92 gk xBA itkfr;k dh l [;k] tul [;k rFkk itkfr;k dh i/kkurk le; d l kFk c<hA itkfr;k dh fofo/krk rFkk l ef) 2010 e fuEure eY; rd ?kV xBA N% o" d 'k" d to it d fy, ,df=r vk dM 275-39 l 535-22 xke^{&2} rd Qy x,A fuEure to it <10% <ky e rFkk vf/kdre ¼ih< 0-05% >20% <ky {k= e Fkk ¼26-7% <10% <ky l Åij ij l c<kA ;g fu;f=r Hk[k.Mk e fuEure FkA fu;f=r Hk[k.Mk ij i'kpkjk to it e c<kYkjh l h Vh e 28-22% xMkuh e 34-92% ch Vh e 23-95% rFkk oh Mh Hk[k.Mk e

18-84% FkA ijr lcl jkpd itkfr;k dh i/kkurk dk i'kpkjk to it rFkk ouLifr Åpkb d l kFk l dkjkRed l c/k g ¼tk le; d l kFk itkfr;k dh lerk d l kFk udkjkRed l c/k d :lk e c<hA l keU; :lk e 17g- {k= e 2005 e 15 Vu ?kk l mRiknu 2010 e 36 Vu rd c<x;kA

2006 e {k= dk fofoHkUu ty lp;u <pk l mipkfjr djd@ty viokg ykbuk dk eg cn dju l ty miyC/krk c<h tk efgykvk }kjk ugku rFkk i'kvk }kjk ihu d fy, mi;kx e yk;k x;kA enk [k.M] enk vkxfud dkc u ¼, l vk l h½ rFkk enk dkc LVkd tu 2010 e egROI.k :lk l c<k rFkk enk [k.M e vk l r of) <10% <ky e 3-7 QkUM 10&20% <ky e 3-2 QkYM] >20% <ky e 4-1 QkYM ih , l vk l h rFkk enk dkc Hk.Mkj e <10% <ky e of) Øe'k 0-98 QkYM rFkk 3-6 QkYM] 10&20% <ky e 4-36 QkYM rFkk 1-4 QkYM rFkk 5-9 QkYM FkA ty lp;u mipkj l enk [k.Mk e of) fu;f=r e 3-4 QkYM l oh fMp Hk[k.M e 4-2 QkYM FkA ijr ch Vh e , l vk l h 12-20% l l h Vh e 28-16% c<kA enk dkc LVkd e of) ch Vh Hk[k.Mk e 4-1 QkYM l oh Mh Hk[k.Mk e 4-9 QkYM FkA



ik/kk rFkk mxrh gb ouLifr dk ,d l keU; n'; ¼'k" k nk, ¼ rFkk mxr g, ikni ¼'k" k ck, ¼ i;kxRed {k=} xvkikMk] ck lokMk l b/ku dh ydMh rFkk pkj dk lxg.k ¼ry] ck, rFkk nk, ¼