Hkkjrh; df"k vuqla/kku if=dk] **35**(4): 231-235 DOI: 10.18805/BKAP252

Mjh i"kvk e mPp mRikndrk d fy, n"kh nok dk mi;kx djd fppMh;k dh jkdFkke ,o ic/ku

d- ikUu"kkeh*] Vh- d- ekgUrh] vkj- d- jfodekj[1]] dkfrd; iVy ,o ,l- jkt
Hkk- —- vu- i- & jk'Vh; Mjh vuqla/kku lLFkku] djuky&132 001] gfj;k.kk] Hkkjr

ikIr% fnlEcj 2020 Lohdr% tuojh 2021

lkjk'k

jä plu vkj [kjkc QhM lou d dkj.k fppMh;k dk lØe.k M;jh i'kvk dh n/k dh inkokj dk dkQh de dj nrk g& ,uMhvkjvkb u 2019 vkj 2020 d nkjku gfj;k.kk e rhu ftyk d vkB xkok e uhe vkj fux.Mh d iÙkk okyh i,yhgcy nok dk mi;kx dju ij ijh{k.k fd;k g tc nok 203 i'kvk ij ç;kx dh xb Fkh rk 47 M;jh Qkek e tkuojk dk çHkkoh <x l fu;f=r fd;k x;k Fkk çk|kfxdh d vf/kd mi;kx d fy, gfj;k.kk e 600 fdlkuk dk fuxUMh d ik/k forfjr fd, x, Fk fdlkuk dk 1440 :i;@tkuojk@o"k dh ryuk e doy 140 #i; l ydj 240 #i;@i'k@o"k rd dk 0;; gvkA ,ykifFkd mipkj dk mi;kx djr g,A

'kCn dth: uhe] fuxMh] i,yhgcy nok] fVd fu;=.kA

Bhartiya Krishi Anushandhan Patrika, **35**(4): 231-235

Ticks management using polyherbal medication for higher productivity in dairy animals

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ABSTRACT

Ticks infestation considerably reduces milk yield of dairy animals due to blood sucking and poor feed intake. NDRI has conducted field trials on using polyharbal medication comprising neem and nirgundi leaves in eight villages of three districts in Haryana during 2019-2020. When the medication was used with 203 animals in 47 dairy farms, ticks were effectively controlled. Nirgundi seedlings were distributed to 600 farmers in Haryana for further upscaling the technology usage. Farmers incurred an expenditure of only Rs. 140 to 240/ animal/year as compared to Rs.1440/animals/year using allopathic treatment.

Key words: Neem, Nirgundi, Polyherbal medication, Ticks control.

ÁLRkkouk

i"kikyu ik'k.k jktxkj d lkFk&lkFk fu;kr vk; c<ku d ekey e ,d egRoi.k Hkfedk fuHkkrk gA Hkkjr e yxHkx 7 djkM xkeh.k ifjokj i"kikyu l tM g, gA n"k e yxHkx 53-5 djkM lk"k/ku vkcknh g] 19oh i"k/ku tux.kuk &2012 e 4-6 ifr"kr dh nj l of) gb gA ftle xk;k dh l[;k 30-27 djkM gA tk lk"kvk e dy lk"k/ku vkcknh dk 36 ifr"kr 19-24 djkM gA bld ckn 20-5 ifr"kr 10-98 djkM Hkl gA mudh l[;k n"k e fdlkuk dh vkftfodk d egRo dk n"kkrh gA 2018&2019 e 18-77 djkM ½Basic Animal Husbandry Statistics, DAHD, & F, GOI½ d mRiknu e Hkkjr igyk LFkku j[krk gA ;g mYy[kuh; in"ku Mjh e db dkj.kk }kjk ;kxnku fn;k x;k g] ftle LokLF; ic/ku mik; Hkh "kkfey gA

i"kikyu e lQy mRiknu d dkj.k

Hkfe dh ryuk e i"k/ku dk forj.k vf/kd lkekU; gA ftle NkV lk"kikyd ,d gDV;j l de Hkfe oky 48 ifr"kr xkeh.k ifjokj "kkfey gA tk n"k d vk/k l vf/kd xk; vkj Hkk lk dk fu;f=r djr gA fdlkuk dh dy vk; lk"k/ku dk ;kxnku 12 ifr"kr gA vPNh uLy d lk"k lrfyr Hkktu vkj le; ij LokLF; ic/ku rduhdh dk viuk dj fdlku mPp n/k mRiknu dj ldr gA fdlkuk dk vfuok; :Ik l nk rjg dh t:jr gkrh gA ,d t:jr egll dh tkrh g] tk rRdky iHkko fn[kkrh g] vkj bl

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Hkk- —- vu- i- & jk'Vh; Mjh vuqla/kku lLFkku] djuky&132 001] gfj;k.kk] Hkkjr
[1]jk'Vh; uoioru ifr'Bku] Xkk/khuxj xtjkr&382 650] Hkkjr
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lckf/kr dju d fy, fdlku vuorh dkjokb djxA e[; t:jr eck>iu dh leL;k] Fkuyk (Mastitis) vkj n/k dh deh tlh chekfj;k "kkfey gA db ,l Hkh dkjd g] tk mRiknu dk de gku dk vn"; iHkko dk n"kkr g] gkykfd ;g vf/kd egRo j[krk gA ble ckgjh ijthoh lØe.k tl fppMh "kkfey gA fdlkuk dk fppMh d ckj e irk rk gkrk g] yfdu mul gku oky LokLF; mRiknu ij udlku dk ugh le> ikr gA ftu fdlkuk dk bu chekfj;k d ckj e vPNh rjg l tkudkjh g] o fppMh d lØe.k dk fu;f=r dju d fy, mfpr le; ij mik; djr gA gkykfd 90 ifr"kr l vf/kd fdlku tkx:drk vkj Kku dh deh d dkj.k vko"; d /;ku ugh nr gA

Mjh lk"kvk e jkxk dk ik;k tkuk

Mjh lk"kvk e ipfyr ie[k chekfj;k g] Fkuyk (Mastitis)] [kjidk egidk (FMD) xyk ?kkV (Haemorrhagic) Anthrax] lØked xHkikr (Brucellosis), T.B. vkj Johne's dh chekjh ,o ijthoh lØe.k Hkh Mjh lk"kvk e vf/kd n[ku dk feyrh gA vxj bu chekfj;k dk le; l mipkj ugh gkrk g] rk fdlku dk vkfFkd udlku dk lkeuk djuk iM ldrk gA

Mjh lk"kvk e lkekU; :Ik l jkx fu;=.k d mik;

vul/kku vkj foLrkj lxBu fdlkuk dk ckM] ifjlj (Shed, Stables, & Kennels) vkj pkjkxkgk dk ijthfo;k leDr j[ku dh lykg nr gA lkjthfo;k dk jkdu d fy, nok dk mi;kx djd mi;Dr le; ij lk"kvk e ijthoh dk jkdFkke vko"; d gA tfod fu;=.k (Insecticides/ Acaricides/Antiparasicits) vkj vkuof"kd fu;=.k (Sterile male technique, chromosomal translocation) }kjk dhV vkj fppMh dh l[;k e vkerkj ij deh d mik; l>k, tkr gA [kkn] xnxh] ueh vkj fLFkj ikuh vkfn lHkh dhVk d ilnhnk ituu LFkku g] blfy, bu LFkkuk dk le; ≤ ij lQkb fd;k tkuk pkfg,A

dhVuk"kd (Malathion, Parathion and Neguvon) dhVk d fy, cgr fouk"kdkjh gkr gA yfdu tkuojk Hkh d fy, dkQh fo"ky gkr gA ub ih<h d Synthetic Periodically tl Deltamethrin (ButoxTM), Cypermethrin (Cyprol, Tikkil) vkfn cktkj e miyC/k gA er lk"kvk dk u'V dju dk lcl lgh rjhdk mUg tykuk g] o mudh eR; d LFkku d djhc mUg vf/kd [khpu d fcuk tyku d fy, LFkku r; djA lk"kvk dk ncku d fy, xgjk [kMMk [kknk tkuk pkfg,A fdlkuk dk le;≤ ij Vhdkdj.k dh lykg nh tkrh gA

Mjh i"kvk e fppMh lØe.k dk vkfFkd egRo

Eku';k vkj tkuojk e fppMh;k }kjk jkx lpkfjr dju dh mudh {kerk d dkj.k yEc le; l fpfdRlk vkj vkfFkd egRo dk ekU;rk nh xb gA fppMh lk"k/ku dk cgr gh vkfFkd udlku igpkrh g] vkj lk"kvk dk db rjg l ifrdy :Ik l iHkfor djrh gA jDr l gku okyh db fcekjh;k dk fppMh ,d lk"k l nlj i"k e Qyku dk dke djrh gA cMh l[;k e fppMh;k dk lk"kvk d "kjhj l jDr Lkkr dju l ?kjy lk"kvk e otu vkj jDr dh deh vkrh gA ftl lk"k dk ,uhfe;k gku d gkykr gk tkr gA tcfd mud dkVu l [kky dh x.koRkk Hkh de gk tkrh gA gkykfd fppfM;k l gku oky cM udlku lk"k/ku dk ikVktkvk fjdVfl;y vkj ok;jy jkxk dk ilkfjr dju dh mudh {kerk d dkj.k gkr gA ;g n[kk x;k g] fd ;|fi xk;k vkj Hklk dk ,d lkFk ikyk tkrk gA yfdu xk;k l iklr gku okyh fppMh itkfr;k dh l[;k Hklk dh fjikV dh xb fppMh d itkfr;k dh ryuk e dkQh vf/kd gA lk"k fpfdRLkd ,ykifFkd mik;k dh lykg nr gA gkykfd fdlkuk dk lk"k fpfdRldk d bykt vkj "kYd dk [kpogu djuk iMrk gA bu ,ykifFkd mik;k d vf/kd n'iHkko g tl fd Ropk lkj tyu ,ykifFkd nok d mi;kx d ckn 2 l 3 fnuk rd tkuojk dh ij"kkuhA tc ge fppMh dk fu;f=r dju d fy, fu;fer :Ik l ,ykifFkd nok dk mi;kx djr g] rk i"k Ropk jkx vkj xHkk"k; d vkx c<u vkj ,ykifFkd nok d ifrjk/k l ihfMr gk ldr gA if"kf{kr lk"k fpfdRldk dk nok d fy, mfpr [kjkd vkj vkonu d rjhdk dk l>ko nuk vko"; d gA

jk'Vh; uoioru ifr'Bku ¼NIF½ d }kjk n"kh nok

;g gcy ¼n"kh½ nok cuku d fy, 2-5 fdykxke uhe (*Azadirachta indica*) dh gjh iRrh dk 4 yhVj ikuh e mckyr gA vkj 1 fdykxke fujxMh/uxkM/ekyk (*Vitex negundo*) dh gjh iRrh dk 2 yhVj ikuh e mckydj lkekU; dej d rkieku ij 12 ?kaV d fy, j[kr g] vkj fQj nkuk dk vyx&vyx Nku yr gA ,d ckj uhe vkj fujxMh dh iRrh dk mckyu ij ge 2-1 yhVj uhe vkj 1 yhVj fujxMh dk ikuh feyrk g] fQj Nku g, nok e l 300 feyhyhVj uhe d iRr dk ikuh] 100 feyhyhVj fujxMh d iRr d ikuh dk ydj 3-6 yhVj ¼3600 feyhyhVj½ lkQ ikuh dk feykr gA ftl ge 4 yhVj nok cuk yr gA jk'Vh; uoioru ifr'Bku ¼NIF½ in"kuk d ek/;e l n"k d db LFkkuk e bl n"kh nok dk c<kok nrk gA

Neem (*Azadirachta indica*)

Nirgundi (*Vitex negundo*)

jk'Vh; Mjh vul/kku lLFkku }kjk fd;k x;k vul/kku dk;

Hkk- —vu- i- & jk'Vh; Mjh vul/kku lLFkku ¼,u- Mh- vkj- vkb- djuky½ u ifj;ktuk dk dk;kfUor fd;k g] Mjh lk"kvk e fppMh vkj ?ku d ic/ku d fy, ykxr iHkkoh lek/kku fdlku lgHkkfxrk eY;kdu% jk'Vh; uoioru ifr'Bku ¼NIF½ }kjk if'kr gfj;k.kk e ,d vul/kku dk; A

ifj;ktuk {k=

gfj;k.kk d 8 xkok e ifj;ktuk dk ykx fd;k x;k Fkk] ftle gfj;k.kk fdlku vk;kx (HKA) ¼rkfydk 1½ }kjk oxhdr rhu vyx&vyx df'k tyok; {k=k dk ifrfuf/kRo fd;k x;k FkkA ftle rhu ftyk dk puk x;k tk djuky thn vkj fHkokuh gA

Øe l[;k	ftyk	Xkko
1	djuky	dVy] verijdyk] vkj dtijk
2	thn	cjkM [kjk] cvkuk] vkj jkejkb
3	fHkokuh	dxM ,o ij

mi;kx dh fof/k

lHkh N% xkok e igy rhu fnuk d fy, Lon"kh nok cuk;h xb vkj mi;kx dh xb FkhA nok dk ,d fnu e lcg vkj "kke nk ckj mi;kx fd;kA bl ifj;ktuk dk fppMh vkj ?ku l iHkkfor tkuojk dk rhu fnuk d fy, ,d mipkj ¼uhe ,o fujxUMh l cuh nok½ inku fd;k tkrk gA mipkj dju d ckn 7o fnu] 14o fnu o 21o fnu vkj 28o fnu d ckn voykdu nt fd, tkr gA

v/;;u l ik;k x;k fd ueuk vkdkj ¼104½ lk"kvk d xydEcy ¼Dewlap½ ij 54-57 ±4-56 ¼Mean ± SE½ rd d fppMh d lØe.k dh nj d lkFk ik;k x;kA ,u vkb ,Q vkiu lkl VDukykth d lkFk bykt dju d 48 ?kV ckn] tkuojk e fppMh;k dh l[;k 34-57 ±3-35 ¼Mean ± SE½ rd de ik;h x;hA gkykfd] 56 ?kVk d

Before treatment in dewlap of calf

After treatment in dewlap of calf

104 lØfer tkuojk dh iHkkodkfjrk d xydEcy ij ifj.kkeA

mipkj dh vof/k	mipkj l igy	mipkj d ckn						
		24 ?k.V ckn	48 ?k.V ckn	56 ?k.V ckn	7o fnu	14o fnu	21o fnu	28o fnu
fppMh dh l[;k								
Mean±SE	54.57 ±4.56	44.56 ± 4.03	34.57 ±3.35	24.63 ±2.34	15.97 ±1.44	9.48 ± 0.75	6.10 ±0.47	3.84±0.29

vr rd] ;g deh 24-63±2-34 ¼Mean ± SE½ ik;h x;h FkhA ;g tkuoj i;kx d 7o fnu d 15-97±1-44 ¼Mean ± SE½ d vr rd vi{kkdr Bhd fd, x, 28 o fnu rd d voykdu u n"kk;k fd ckj &ckj lØe.k ugh gvk lØfer lk"kvk ij bl r;kjh dh ifr"kr iHkkodkfjrk dk voykdu d 28 o fnu rd 92-97 ifr"kr ikb xbA

lkekU; voykdu

v/;;u l ik;k x;k Fkk fd nok u lk"kvk d ¼*Hyalomma anatolicum anatolicum*½ fppMh lØe.k ij iHkko fn[kk;k x;k FkkA lkekU; rkj ij bu lØfer lk"kvk dk yxHkx 35&40 fnuk rd Bhd fd;k tkrk FkkA i;kfxd vof/k d nkjku mipkfjr i"kvk ij fppMh d lØe.k dh iujkofRr ij /;ku ugh fn;k x;kA fppMh lØe.k dk fu;f=r dju d fy, 3 fty djuky thn vkj fHkokuh e fLFkr 8 xkok d chp lonhdj.k vkj eY;kdu fd;k x;kA

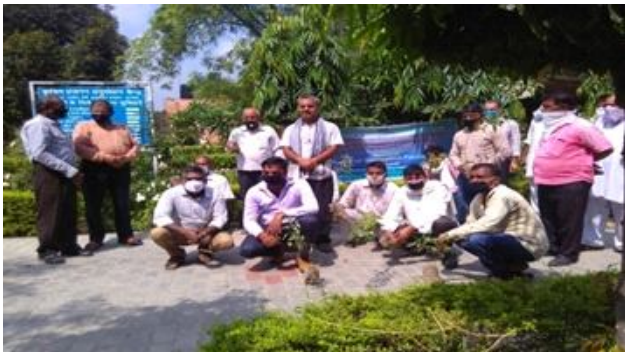
fujxMh d ik/k dk forj.k

uhe ¼*Azadirachita Indica*½ gfj;k.kk d gj fgLl vkj ;gk rd fd lHkh Hkkjrh; Lrjk ij 0;kid :i e n[ku dk feyrk gA gkykfd fujxMh ¼*Vitex negundo*½ tk 40 l 50 lky igy iotk }kjk cpk;k x;k FkkA gfj;k.kk e dN gh {k=k e miyC/k gA vc rd d fd, x, dk; d fgLl d :i e jk'Vh; Mjh vul/kku lLFkku u ou foHkkx ;euk uxj gfj;k.kk ljdkj l vujk/k fd;k Fkk fd o pu g, fty d fdlkuk ,o vU; i"kikyu d fy, fujxMh@ekyk ik/k dh vkifr djA lk"k fpfdRlk foHkkx vkj df"k foKku dUn e foLrkj foHkkx jk'Vh; Mjh vul/kku lLFkku l pu g, fty vkj dN foLrkj bdkb;k d }kjk gfj;k.kk e fofHkUUk fty d 30 xkok e 600 fdlkuk dk ik/k forfjr fd x, rkfd tc iM cMk gk tk, tk fdlku uhe vkj fujxMh d iRrk dk mi;kx djd Lo; nok r;kj dj ldA

{ker fuek.k

djuky d jk'Vh; Mjh vul/kku lLFkku e 15&17 Qjojh 2020 e vk;kftr Mjh ey d nkjku n"kh nok dk cuku vkj mi;kx dju dh fof/k dk Mjh ey e vk; fdlkuk dk tkudkjh nh xbA tk jk'Vh; uoiou ifr'Bku ¼xk/kh uxj xtjkr½ dh rduhd gA

jk'Vh; Mjh vul/kku lLFkku d fun"kd }kjk Hkh crk;k fd bl ifj;ktuk l fdlkuk dk lk"kikyu e ykHk vkj fodkl gkxk rFkk bl rduhd dk 30000 l vf/kd ckj ;V;c ij Hkh n[kk vkj mYy[k fd;k x;k gA bl ifj;ktuk e lQyrk tk djuky fty d dVy xko e n[kh xb ml ,- b- ,l- ,- Cykx e jk'Vh; Mjh vul/kku



Distribution of Nirgundi seedlings

lLFkku djuky e lQyrk dh dgkfu;k d nLrko thdj.k d if"k{k.k d fgLl d :Ik e Hkh lk>k fd;kA blu lk;koj.k fgr'kh lk"k/ku d ifr vkUnkyuk d chp odfYid ik|kfxdh dh vko";drk d fy, db fgr /kkjdk d chp :fp ink dhA

lk"kvk dh nok cuku d fy, vkk;ofnd cxhpk&

Hkkjr dk ik/kk vkj i"kvk dh mRifRr dh le} vkj to fofo/krk l lEekkfur fd;k x;k g] fd fdlh u fdlh vueku e dgk x;k g] fd xg ij yxHkx nl djkM itkfr;k g gkykfd mue l yxHkx 1-5 djkM ykx ykxk dk tkur gA phfV;k dh 20000 l vf/kd itkfr;k] 300000 Hkx dh itkfr;k] 28000 eNfy;k dh itkfr;k vkj vkfdM dh yxHkx 20000 itkfr;k gA Hkkjr nfu;k d mu 12 n"kk e l ,d g tgk 50 ifr"kr l vf/kd exk fofo/krk dfnr g ¼2006½ /kok dh vkj Hke/; j[kk l nj tku ij itkfr fofo/krk ?kV tkrh gA m'.k dfVc/kh; v{kk"kk e bld vf/kd"k Hkfe {k= d lkFk Hkkjr e if{k;k dh 1200 l vf/kd itkfr;k gA ,d fLFkj okrkoj.k vkyk fo"k'kKrk dk c<kok nrk g vkj ipj ek=k e lkj mtk l fofo/k itkfr;k d fofo/kdj.k dh vkj tkrk g] nt dh xb lHkh ijtkfr;k e l 70 ifr"kr l vf/kd lk"k g tcfd ik/kk e dy 22 ifr"kr "kkfey gA tkuojk e dhV dh lcl vf/kd ixtkfr;k le) VDlkukfeDl leg 70 ifr"kr gA of"od itkfr;k dh fofo/krk e Hkkjr dh fgLlnkjh 8-1 ifr"kr gA Hkkjr e yxHkx 45000 ik/kk dh itkfr;k gA vuekur 1 yk[k l vf/kd tkuojk dh itkfr;k vkj 3 yk[k l vf/kd tkuojk dh itkfr;k dh [kkt vkj o.ku fd;k tkuk ckfd gA ftle ykxk vkj vU; itkfr;k d dY;k.k d fy, cgr vf/kd vkonu gk ldr gA db ik/kk e vf/kd vlk/kkj.k vk'kf/k x.k gkr gA tk lk"k LokLF; ic/ku e egRoi.k Hkfedk fuHkkr gA jk'Vh; Mjh vul/kku lLFkku d fofHkUu fgr /kkjdk d chp lk"k LokLF; egRo d

lkFk db ik/k d mi;kx d ckj e tkx:drk ink dju d fy, ,d gcy XkkMu LFkkfir dju dh igy gA ;g vkxrd dk vkj Nk=k dk lh[ku d fy, ,d iHkkoh ep d :Ik e dke djxkA

Mjh lk"kvk d LokLF; vkj j[k j[kko ic/ku e lk;koj.k d vudy ik|kfxd;k dk c<ok nu dh j.kfufr;k

lk"kikyu e mRikndrk d fy, vf/kd iHkko j[ku oky Lon"kh Kku i.kkfy;k dk ilkfjr dju d fy, fuEufyf[kr j.kfufr;k dk l>ko fn;k x;k gA

1- ekl ehfM;k] lk"ky ehfM;k if"k{k.k vkj in"ku lfgr foLrkj rduhdh;k d ek/;e l fdlkuk e tkx:drk ink djukA

2- Lon"kh Kku i.kkyh d 0;ogkfjd mi;kx d fy, lkotfud vkj futh nkuk {k=k d lxBuk e dke dju oky lk"k fpfdRlk dk lonu"khy cukukA

3- lpuk d vknku&inku d fy, LFkkuh; fpfdRlk] d oh d vkj fdlkuk d chp ,d ckr&phr dh lfo/kkA

4- lk;koj.k lj{k.k vkj lk;koj.k d vudy df'k ic/ku eY;k d fy, gcy ik/kk dh Hkfedk d egRo d ckj e Ldy vkj dkyt d Nk=k dk f"kf{kr djA

5- ik|kfxd;k d rth l ilkj d fy, Lon"kh Kku i.kkfy;k ij vf/kd lpuk lkexh ykukA

6- ijLdkj fofHkUu fgrdkjdk dk fn;k tkuk pkfg,A tk ljdkj }kjk to fofo/krk dk c<kok nu d fy, [kn dk lefir djr gA tl fd gfj;k.kk ljdkj }kjk iky jru ijjLdkj] erL; jru ijLdkj vkj tfod [krh jru ijLdkjA

fu'd'k

ikyh gcy nok }kjk jkdFkke ,o ic/ku djd ikIr dh xbZ mYy[kuh; lQyrk d'kd lenk; dk ilkfjr dh tkuh gA Lon"kh gcy nokvk dk lQy in"ku fuf"pr :Ik l ykxr iHkkoh LokLF; n[kHkky lfuf"pr djxkA lk"k fpfdRlk lok d fgrdkjdk dk ik|kfxdh dh mi;kfxrk d lkFk lonu"khy cuku dh vko";drk gA fdlku viu [kr e r;kj gku okyh bl ikyh gcy nok dh mi;kfxrk dh ljkguk dj ldr g vkj viu tkuojk ij fppMh dh fprk fuHkjrk dk de dj ldr gA foLrkj i"koj bl rduhdh Kku dk mi;kx viuh bdkb;k ;k lk"k LokLF; f"kfojk e gfjr ik|kfxd;k dk vkx c<ku d fy, dj ldr gA

vfHkLohdfr

ge jk'Vh; uoioru ifr'Bku ¼NIF½] foKku vkj ik|kfxdh foHkkx ¼DST½] xk/khuxj] xtjkr d fofRr; vkj rduhdh ekx n"ku gr cgr vkHkkjh gA

lnHk

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