



# উদ্ভিদ বার্তা

৩৩তম বর্ষ ১ম সংখ্যা অগ্রহায়ণ ১৪২৫ / ডিসেম্বর ২০১৮



বাংলাদেশ বোটানিক্যাল সোসাইটি  
উদ্ভিদবিজ্ঞান বিভাগ  
ঢাকা বিশ্ববিদ্যালয়

# DwMÇ evZP

[evsj vř` k tevUwbK`vj řmvmvBıUı evsj v gřcĀ]

**33Zg el Āg msL`v AMĀvqY 1425/WřmřĀ 2018**

	mřúv` Křq
<p><b>cĀvb mřúv` K</b> Aa`vcK W. bvRgj Avj g</p>	<p>mevBřK bZb eQřii řřf`Qv  Avkv Kwi BřřıRx 2019 mřj Avgvř`ı Rb` eřq Avbře kwiřř-mgřřx   bZb D`mřeřřbi mdj Zv </p>
<p><b>mřúv` K</b> Aa`vcK W. wřıni j vř mrvv Aa`vcK W. řgvrvřř` Avj řgvRvřř` x Avj řdQvbx Aa`vcK W. dvi Rvbn Avmi vıd bxj v Aa`vcK W. řgvt gıbi 3/4vgvb L` Kvi</p>	<p>cřeP gZB ej řZ nř`Q tj Lvi řřZv   cřvi wegř DwMÇ weĀvbxř`ı K_v  řKv_vq thb Avgvř`ı tj Lvi e`vcvřřı AvMĀni NvUwZ řřřK hvř`Q  řwełřřZ DwMÇ mřúřřKřmřř řvebv řřj v dıUřřq řZvj vi Rb` GB DwMÇ evZP Avi   mgř nře mKřřı mñřhvMZvq </p>
<p><b>Dcř` óv cwi l`</b> Aa`vcK W. Avej Lvřqi Aa`vcK W. řgv`dv Křvgj cvkv Aa`vcK nvmv řnbv řeMg Rbre řčb Křvi ivq Aa`vcK Gbvřj nK Lvb Rbre AveyRvdi řgvt Qvř` K</p>	<p>প্রকাশনার সাথে সংশ্লিষ্ট সবাইকে কমিটির পক্ষ řřřK ab`ev`   hv řKvb AmsMwZ ev řřj nřq _vřřK, řm řřřj ř`vq Avgvi   Avi řřřřřj vMvUKz mKřřı, cřřřkv řBj řřj _vKvi, řřj řvLvi  </p>
<p><b>Aa`vcK W. bvRgj Avj g</b> KZř evsj vř` k řevUwbK`vj řmvmvBıUı Kvhřř q, DwMÇ weĀvb weřvM, XvKv wekře`vj q řřřK cřKvřřZ</p>	
<p><b>wRıBb l gřřt</b> nvwme KvwúDUvi m&amp;GÚ wçĀUs 62/1 cřjvbn cėb, XvKv-1000 E-mail: hasibprinting@gmail.com Cell: 01552388130, 01612388130</p> <p><b>gřřt 20.00 (wck) UvKv gvř</b></p>	

### mvPcĪ

**nvi evj tgvWmġb Dvġġ i Ae`vb I**  
**fvel`ġzi ħ`ġmev**  
W. mvbR`v gjevkkvi v

**eU-cvKġoi veġqi mġġ**  
**i`vdġbveumKvi Mġ**  
W. ġgini j vj mrvv

**Avġeġ K c×vġġZ tiW cġZKvi I**  
**cġġġġġ Avcbvi mġPZbZv Ges AvZ**  
**cvi vPZ ħfIR Dvġġ i e`envi**  
Wv: AgZ Kgv mi Kvi

**vecbġġ eġġ cġRvZ msi ġġġY - PġMġg**  
**veġġe`vj q K`vġum**  
W. ġginvġġ Kvgv ħnmvBb

**fġvi tiW I Zvi cġZKvi**  
veġvb W. ħK. Gg. Lvġj Kġ4vgvb

**ħRġbġġ. i Kvm I mġcWġMb**  
ġginvġġ mġġ K nvmvb

**emġġi evZvġġġ cġġk dġ**  
ġginvġġ mġġ K nvmvb

**mKġġġv mdi-2018**  
W. Avej nvmvb Uġ÷ dġġi eġġ cġvb  
eġġġ k GKvġWġg Ae Gmġġv Pvi  
KZġ ħMvi ġġWġ cġB

### Dvġġ evZġ Rb` tj Lv

Dvġġ mġvġKġ ħ ħKvb veġq wfvġEK vbeġ,  
3 Lei, Zġ, Dvġġ mġMġ, kbvġKiY, msi ġġY,  
Abġmġvb, vġġvgġ K ġgY, Ave`vi BZ`v`  
tj Lv Dvġġ evZġġ cġKv Kiv nq|

8 tj Lv KvMġRi GK cġvq mġvġfġe ġv Z  
nġZ nġe| Zġe B-ġġBj, mġW ev tcbWġBġfi  
ġvġġ cġvġbvi tj Lv AMġġKvi cġe|  
cġġġġ cġvġbvi mġq Aek`B Kvc ħġġ  
12 cġvġeb| AgġbvbZ tj Lv ħdiZ cġvġbv nq  
bv| tj Lvi ġvbB evZġġ cġKvġġ ġvb`ġ Ges  
G e`vcġġi mġv`K ġġxi m×vġB Pdvġġ  
16 tj Lv cġvevi ci`ġ mġL`v cġKvġZ nġqvi  
ci I Qvcv bv nġj AgġbvbZ nġġġ etj aġi  
vbġZ nġe|

22 tj Lvi Rb` mġġbx ħ`qv nq bv|  
Dvġġ evZġġ cġKvġZ tj Lvi ġZvgZ  
33 mġvġfġe ħġġġ| mġv`Kġġx ev  
ħnmvBġġi ġZvgZ bq|

### Dvġġ evZvġ MġK ħvb

37 eġġi`ġ mġL`v evZvġcġKvġZ nq|

### Pu`v cġvevi wKvbv

38 mġv`K, Dvġġ evZvġ  
eġġġġ k tevUvbK`vj ħnmvBġġ Kvġġ q,  
Dvġġ veġvb vefvM, XvKv veġġe`vj q,  
XvKv-1000

39 cġZ mġL`v Dvġġ evZġ ġġ` 20.00 UġKv



# nviej tgvwm̄b Dw̄m̄ i Ae`vb I fvel`tzi `v`r̄mev

## W. m̄b̄R` v gv̄k̄k̄v̄

Aa`vcK, Dw̄m̄ weÁvb wefvM, Rv̄v̄xi bMi wek̄pe`vj q, m̄v̄vi, XvKv-1342

gnwek̄t GB c̄w\_ex bvgK M̄i m̄j̄i Aw̄ n̄tZ Dw̄m̄ i v̄Ri B̄vZnm̄ cvl qv hvq| ch̄q̄m̄t̄g  
c̄w̄YK̄j t̄K Zv̄t` i m̄Kj t̄ḡw̄j K P̄v̄n`v c̄t̄t̄Y Dw̄m̄ i v̄Ri Dci w̄b̄f̄p̄k̄xj n̄tZ t`Lv hvq| cweĀ  
M̄S` Avj -K̄i Av̄t̄b gv̄b̄j Qvov Avi hZ m̄j̄i জীবের উল্লেখ Av̄t̄Q Zvi ḡt̄a` Dw̄m̄ I Dw̄m̄ R̄vZ e`i  
AwaK` j ̄Yxq| Avj -K̄i Av̄t̄bi mēf̄gv̄U 144w̄U m̄j̄vi ḡt̄a` 57 w̄U m̄j̄vi 242 w̄U Avq̄t̄ZB  
cZ`̄q̄ ev c̄t̄iv̄q̄f̄v̄te dj -dmj , km`vbv, ēq̄-i v̄R, k̄v̄ḡj t̄q̄Ā, D`vb I c̄w̄t̄ēki b̄v̄b̄v  
eȲv̄ I Dcgv Ḡt̄m̄t̄Q, KLb̄l w̄b`k̄b̄i f̄c̄ KLb̄l w̄b̄q̄v̄ḡZ I J̄l̄a w̄n̄m̄v̄te, KLb̄l āȳsm̄h̄Á  
i f̄c̄ gv̄b̄j t̄K m̄t̄PZb̄ Ki t̄Z Avevi KLb̄l ev Z̄j̄ b̄v w̄t̄Z (t̄j̄ L̄t̄Ki w̄b̄R`^ch̄ēq̄b̄)| c̄w\_exi  
c̄w̄P̄x̄b̄Zg aḡM̄S` ōte`ō Gi wēw̄f̄b̄ēL̄t̄Ū c̄w̄i J̄l̄a Dw̄m̄ i wēēib̄ cvl qv hvq, th̄ t̄j̄v̄ K̄v̄t̄j̄ i  
Avēt̄Z`Āt̄b̄K̄v̄sk̄ Av̄ḡv̄t̄ i t̄k̄x̄q̄ ms`w̄Zi Ask n̄t̄q̄ D̄t̄V̄t̄Q| Av̄ḡv̄t̄ i t̄t̄k̄ c̄w̄j̄ Z wēw̄f̄b̄ē  
c̄ēv` c̄ēP̄b̄, L̄b̄vi ēP̄b̄ c̄f̄w̄Z̄t̄Z c̄w̄i J̄l̄a Dw̄m̄ i b̄vḡ I Ḡt̄ i e`envi m̄ēūt̄K`avi Yv  
t`l̄q̄vi t̄P̄ov̄ K̄iv n̄t̄q̄t̄Q| c̄w\_exi c̄w̄P̄x̄b̄Zg w̄P̄w̄K̄rm̄v̄ weÁvb ōAv̄q̄te`ō Gi B̄vZnm̄ ch̄ēj̄ v̄P̄b̄v̄q̄  
R̄v̄b̄v hvq, c̄w\_ext̄Z gv̄b̄j̄li Av̄M̄gb̄K̄v̄j̄ x̄b̄ mḡq̄ n̄tZ b̄v̄b̄v āīt̄bi t̄iv̄M̄ t̄k̄v̄K̄ I e`v̄mai Av̄M̄gb̄  
n̄tZ v̄K̄t̄j̄, t̄m̄ t̄j̄v̄ D̄ck̄t̄ḡ gv̄b̄j̄ Dw̄m̄ i D̄ciB w̄b̄f̄p̄ Ki Z| w̄P̄w̄K̄rm̄v̄ weÁv̄t̄bi c̄w̄P̄x̄b̄Zg  
M̄S` w̄j̄ i Ab`Zg K̄v̄q̄ w̄P̄w̄K̄rm̄v̄ M̄S` ōP̄iK̄ m̄s̄w̄n̄Zv̄q̄ō 341 w̄U Dw̄m̄ I Dw̄m̄ R̄vZ `te`i Ges  
k̄j̄`Z̄w̄m̄S̄K̄ হুহু সূত্র সংহিতায় ৩৯৫ টি ঔষধি গাছের উল্লেখ cvl qv hvq| Ḡf̄v̄te Av̄k̄iv̄dj̄  
gv̄L̄j̄K̄v̄Z ev Aḡt̄Zi m̄š̄t̄b̄ GB gv̄be R̄w̄Zi μḡ wēK̄v̄t̄ki m̄Kj `̄t̄i ci t̄Z ci t̄Z f̄w̄ḡK̄v̄ t̄i t̄L  
hv̄t̄`Q GB Dw̄m̄ Avi Dw̄m̄ m̄s̄μ̄v̄š̄-Ávb A\_̄f̄ Dw̄m̄ weÁvb|

Aw̄ ḡK̄v̄t̄j̄ h̄L̄b̄ gv̄b̄j̄ Ni ev̄at̄Z t̄k̄t̄L̄w̄b̄, Ab`vb` c̄ōb̄xi m̄v̄t̄\_ ēt̄b̄ R̄v̄t̄j̄ N̄t̄i N̄t̄i ēt̄q̄i ḡj̄-  
K̄v̄Ū, j̄ Z̄v̄-c̄v̄Z̄v̄, dj̄ -dj̄ , i m̄-K̄l̄ t̄t̄K̄ L̄v̄t̄`i P̄v̄n`v̄ t̄ḡŪv̄t̄Z̄v̄ Avi GB ēt̄q̄i B̄ W̄v̄t̄j̄ -K̄Ūt̄i  
Av̄k̄ō̄ w̄b̄Z̄ Z̄L̄b̄l t̄iv̄M̄-t̄k̄v̄t̄K̄ Av̄t̄k̄ c̄v̄t̄k̄ R̄b̄t̄t̄b̄ Dw̄m̄ i t̄k̄K̄o, ev̄K̄j̄, j̄ Z̄v̄-c̄v̄Z̄v̄ c̄f̄w̄Z̄  
t̄meb̄ K̄t̄i t̄iv̄M̄ D̄ck̄t̄gi t̄P̄ov̄ Ki Z| Ḡf̄v̄te K̄v̄t̄iv̄ K̄v̄t̄iv̄ D̄ck̄vi n̄t̄Z̄v̄, Avevi Āt̄b̄t̄Ki B̄ q̄w̄Z̄  
n̄t̄Z̄v̄| hv̄t̄ i D̄ck̄vi n̄t̄Z̄v̄, Z̄v̄iv̄ cieZ̄x̄p̄Z̄ H̄ m̄K̄j̄ m̄gm̄v̄q̄ w̄b̄t̄R̄t̄ i D̄ck̄vi c̄ōB̄ Dw̄m̄ t̄mēt̄b̄  
Ab̄t̄ i c̄iv̄ḡk̄w̄ Z| Ḡf̄v̄teB̄ gv̄b̄j̄ Z̄vi w̄P̄w̄K̄rm̄vi c̄ōq̄v̄R̄t̄b̄ Dw̄m̄ i e`envi w̄K̄L̄t̄Z̄ i i` K̄t̄i  
Ges wēw̄f̄b̄ēJ̄l̄a Dw̄m̄ w̄P̄w̄ȳZ̄ K̄t̄i Z̄vi e`envi w̄j̄ w̄ce× K̄t̄i i v̄L̄t̄Z̄ i i` K̄t̄i | Z̄L̄b̄K̄vi w̄t̄b̄  
h̄iv̄ Ḡ t̄j̄v̄ tek̄x̄ P̄P̄Ki Z, Z̄v̄t̄ i w̄b̄K̄U wēw̄f̄b̄ēt̄iv̄M̄ e`v̄mat̄Z̄ Av̄μ̄v̄š̄t̄v̄ c̄iv̄ḡk̄w̄b̄Z| Ḡf̄v̄teB̄  
ḠK̄w̄U w̄P̄w̄K̄rm̄K̄ t̄M̄v̄ōx̄ M̄t̄o D̄V̄t̄Z̄ v̄t̄K̄, h̄iv̄ esk̄cīēūiv̄q̄ gv̄b̄j̄li w̄P̄w̄K̄rm̄v̄ K̄t̄ḡw̄b̄t̄q̄w̄R̄Z

\_vKZ, Avi Zv` i JI`tai c`avb Drm wQj Dw`mC | GLbl cvnvto emevmKvix Avw`g Rb`Mv`ox  
Zv` i wPwKrmvq GB HwZn` ati ti`L`tQ| U`Bvej tgvWwmb bv`tg A`bK bZb bZb Dw`mC` i  
JI`wa e`envi Avgiv Zv` i Kv`Q wK`L`Z cv`wQ| we`k^ Aw`e`Z c`PxbZg wPwKrmv we`Avb-  
Avqte©, BDvbx, PvBwbR wU.wm.Gg, c`f`wZ wPwKrmv c`x`wZi JI`tai Ab`Zg Drm wnmvte  
Dw`mC` i gj, Kv`U, cvZv, dj, dj, AvWv c`f`wZ e`envi Kiv n`Zv| m`f`Zvi mg weKv`tki avivq  
Avb we`Av`b`i Ab`v`b` kvLvq Dbq`b`i cvkvcv`k bZp bZb wPwKrmv c`x`wZi I Awef`e N`tU|

eZg`v`b miv we`k^euj c`Pw`j Z Gtjvc`w`\_K wPwKrmv c`x`wZi JI`tai A`bK Drml Dw`mC` n`Z  
c`O`B we`f`b`e`Gj Kuj t`qWm, z`vB`Kv`m`v`BW, d`v`f`v`b`t`qWm, Uviwcb`t`qWm, t`o`ij, t`d`b`w`j Km, D`O`v`q`x  
t`Zj c`f`w`Z| E`v`b`k k`Z`K`i wPwKrmv c`x`w`Z O`f`n`v`g`l c`w`\_O` JI`tai Ab`Zg enr Drm n`tjv Dw`mC` |  
G`Q`v`ov m`v`u`l`Z`K we`k`f` e`u m`f` t`f`k e`uj e`e`u`Z O`n`v`iej tgvWwmb`O` Gi Drml Dw`mC` |  
Av`v`b`K Gtjvc`w`\_K wPwKrmvq e`e`u`Z JI`tai m`v`t`\_ c`O`P`x`b wPwKrmv c`x`w`Z Avqte©, BDvbx`t`Z  
e`e`u`Z JI`tai gj cv`\_R` n`tjv; Gtjvc`w`\_K JI`ta m`W W`M`m t`\_t`K Kv`h`R`ix Dcv`vb Avj`v`v  
Kivi gva`tg`i`agv`l GKw`J Kv`h`R`ix Dcv`vb w`t`q JI`tai we`f`b`e`f`W`v`t`RR dig-w`m`ivc, U`vetj`U,  
K`v`cm`j, Bb`t`R`K`k`b c`f`w`Z `Zix K`ti wPwKrmvq e`envi Kiv n`q| m`W W`M`m Gi G`K`K  
i`v`m`v`q`b`K Dcv`vb JI`ta e`v`b`h`ar` k`r`ay, s`a`h`i`o` W`M`m G we`g`v`b e`v` t`l`q`v Ab`v`b` i`v`m`v`q`b`K  
Dcv`vb (hv cvk`e`O`Z`w`q`v `i`x Ki`b m`n`v`q`K) Gtjvc`w`\_K JI`ta bv` \_v`K`v`q G m`K`j JI`ta  
cvk`e`O`Z`w`q`v we`g`v`b| t`K`v`b G`K`K i`v`m`v`q`b`K Dcv`vb e`envi bv` K`ti eis m`u`Y`©m`W W`M`m  
w`b`t`q Zv n`Z JI`tai we`f`b`e`f`W`v`t`RR dig-w`m`ivc, U`vetj`U, K`v`cm`j, Bb`t`R`K`k`b c`f`w`Z `Zix  
K`ti Avqte© K I BDvbx wPwKrmvq e`envi Kiv n`q| Zv`B GB m`K`j JI`ta cvk`e`O`Z`w`q`v L`p`B  
Kg ev`tb`B e`j`t`j`B P`t`j | Acic`f`q`l n`v`iej tgvWwmb n`tjv GB m`W W`M`m m`g`a t`\_t`K Gw`e`f  
w`c`O`Y`cvj (Kv`h`R`ix Dcv`vb) m`g`a th m`K`j w`g`w`v`q`v (B`\_`v`b`j, w`g`\_`v`b`j, t`n`t`K`b, c`f`w`Z) m`t`e`P`P  
g`v`l`v`q `e`x`f`Z n`q, t`m`B m`K`j w`g`w`v`q`v e`v`envi K`ti Kv`h`R`ix Dcv`vb m`g`a`t`K m`w`j W di`tg i`f`c`v`S`i  
K`ti JI`tai we`f`b`e`f`W`v`t`RR dig Ab`h`v`q`x wPwKrmv Kv`h`e`e`envi Kiv n`q| G m`K`j JI`ta  
G`K`w`a`K Kv`h`R`ix Dcv`vb we`g`v`b \_v`K`v`q G`t`i`l cvk`e`O`Z`w`q`v Z`j`b`v`g`j`K Kg| Ab`w`t`K  
t`n`v`g`l c`w`\_K tgvWwmb n`t`Q, m`W W`M`m Gi m`q`l P`Y`f`K w`b`w`e` c`w`i`g`v`b g`v`l`v`q, m`g`q I c`x`w`Z`t`Z  
B`\_`v`b`t`j `e`x`f`Z K`ti B`\_`v`b`j m`n m`q`l g`v`l`v`q (W`v`B`j`k`b ev`g`v`i`w`S`P`i dig) we`f`b`e`t`i`v`t`M  
t`i`v`M`x`t`i wPwKrmvq e`envi Kiv n`q| G m`K`j JI`ta I G`K`w`a`K Kv`h`R`ix Dcv`vb we`g`v`b \_v`K`v`q  
G`t`i`l cvk`e`O`Z`w`q`v Z`j`b`v`g`j`K Kg| Z`v`n`t`j t`\_L`v`h`v`t`Q, m`K`j t`q`l`t`l m`K`j wPwKrmv c`x`w`Z`t`Z`B  
t`i`v`M D`c`k`t`g JI`tai Ab`Zg Drm Dw`mC` | Zv`B `v`-`m`j`q`l`v`q Dw`mC` i Ae`v`b e`b`v`Z`x`Z|

Avqtef K wPwKrmv weAvtb eu c0PxbKuj nZ ^tm, Ke, Ky\_, wng l dvE; GB cAwea diqg Dwmc tK Jlaijfc e'envti c xwZ eu j c0uj Z | M0g evsj vi c0q Awakvsk cwievti c0wgK wPwKrmvq GLbl Dctiv3 dig ,tjv e'envi Kti tivM Dcktgi tPov Ae'vnZ itqtQ | thgb tKv\_vl tKtU tMtj `e# im, KPi Km (^tm) AR# Qvj evUv, Av`vevUv (Ke) c0wZ e'envi Kiv ntq \_vtK i3tivaK wnmvte | Mjve`v\_v, mw`KwK c0wZ Dcktg evmK, Zj mx, ev Av`vi im (^tm) tmeb Avgv`i HwZtn`iB `#iK | G0vov Av`v, tZRcvZv, `viwPwb, j e1/2 w`tq `Zix Pv (Ky\_) Gi DcKwi Zv c0q meviB Rvbn | tctUi bvbv mgm`v l tKSoKwWtb` wldjv wFRvb cwlb (wng) tmeb, A#tKiB Af`vtmi Ask | AwZwi3 ,i"cvK Lv` M0tb m0 A`w`-t`\_tK gy3 tctZ A#tKiB GKUz Mig cwbtZ tjey thvqvb ev cv`bv cvZv wFRtq (dvE) tmetb `w`-jvf Ktib | Gfvtc c0ZwbqZ Avgv`i AvZ ev AAvZ Avgiv tivM Dcktg Dwmc`i e'envi Kti \_wK hv Kvi l ctq A`Kvi Kivi Dcvq tbB |

Avgiv Rwb, Aw`gKvtj i gvb#li Kgq#gZv l tivM c0Ztiva e'e`v fvj wQj weavq mntR tivMwvš-ntZv bv | Kvtj i AveZ`mf`Zv weKvtki avivq Lv` km` Drcv`b c0i e#x tctqtQ wKB wKš` ,bMZ gvb ati ivLv m#e nqub | ZvB gvb#li Kgq#gZv l tivM c0Ztiva q#gZv Ktg tMtQ | G0vov Avenvlqv l Rjevqi e'vcK cwieZ#b tivM e'wai nvi e#x tctqtQ A#bKvstK | G ,tjv Ovovl wek`wmc eu j c0uj Z Gtjvc`w\_K wPwKrmvq e'envi Kwlg ivmivwbK JI tai bvbv cvk0Zwvqv l Ace'envti m0 Rulj Zvq gvb#li `v` mj qv w`b w`b KwWb ntq ctotQ | GB wPwKrmvq tivM wbyq e'e`v tek e'qeuj nlqvq Avgv`i gZ A#bK Dbqbkxj t`tk gvb#l wPwKrmvi e`q tGUvtZ wMtq axti axti wb:`^ntq cotQ | DbZ wek`GB wclq ,tjv Ab#vab Kitz tcti Zviv Avevi c0KwZK Jla e'envti Drmvnx nlqvq Dwmc` wbtq Mtelbv Kti bZb bZb nvevj tgvwvmb evRvti AvbtQ Ges gvb#l G ,tjv e'envi Kti tivM c0Ztiva l c0ZKvti dj c0m-mpj cvt`Q |

evsj vt`k wek# Ab`Zg c0KwZK m#ut` ficj NbemwZ cY`GKuU m#0evbgq t`k | Gt`tk tFIR Dwmc`i ch# c0PhZv itqtQ | ZvB tFIR Jla Drcv`b l wPwKrmvq Gi e'envi e#xi m#0evbl c0i | eZqvtb evsj vt`tk wekvj RbtMv0xi wPwKrmv e'e`v c0q c#ivc#i Gtjvc`w\_K wPwKrmv wbfP | GB wPwKrmv e'e`vq tivM wbyq t`\_tK i i" Kti tivM Dckg, c0Ztiva meUvB c0i e'qeuj , hv Avgv`i gZ `wi`^, Dbqbkxj t`tki RbMtbi Rb`enb Kiv Am#e | miKvi tmev`vtbi jtq` t`tki wevfbe`#i th mKj `v`-tmev c0Z0vb `vcb Kti#Q, Zv t`tki tgvU RbtMv0xi qiz` AskTK tmev`vtb mq#g | Gtjvc`w\_K wPwKrmvi gZ e'qeuj GKK wPwKrmv c xwZ w`tq evsj vt`tki gZ Rbeuj `wi`^ t`tk gvb#li Ab`Zg tgsuj K Awakvi `v`-tmev

wbwÖZ Kiv`y`fa` ev tKvb tKvb t¶¶t¶ Amæe| Avkvi K\_v miKvi vek^`v` ms`vi Drmvtñ  
t`kxq wPwKrmv e`e`vtK Gtjvc`wv\_ wPwKrmvi mv\_ miKvix e`ve`vcbvq miKvix `v`tmev  
cÖZövb mgfn RbMtbi `v`tmev cÖvtbi j`¶¶` AšF® Ktiq| BtZvgta` tek wKQyRbej  
wb tqvM | DctRjv, tRjv, tgvWtKj KtjR nvmcvZvj mgfn tFIR JIax DwM` i evMvb mRb  
Ktiq| G\_tjv RbMtbi Pwn`vi Zj bvq AZ`š-AcZj | miKvi mvZ nvRvi Gi Dci  
KvgDwbwU wKwbK `vcb Kti tmLvb t`tK cÖwgK `v` tmevi Rb` 30 aitbi JIa webvgtj`  
সরবরাহের মাধ্যমে পল্লী AAtj i `v`tmev wbwÖZ Kiti Avcöb tPón Kti hv`Q| Avgv` i gZ  
Rbeuj Dbqbkxj t`tk miKvi th evtRU w`tq th cwi gvb tjvtKi Gtjvc`wv\_K wPwKrmvi  
gva`tg `v`tmev cÖvtbi tPón Kiti, t`kxq wPwKrmv e`e`v \_tjvtK cÖšK RbtMvöxi `v`  
tmevq wb tqvRZ KitiZ cvi t j , ZvitPtq AtbK Kg evtRtU AtbK tekx mvaviY RbtMvöxtK  
`v` tmevi mtdj tcštQ t`lqv thZ| evsjvt`k tFIR DwM` mæut` mgx| Gt`tki meP  
cWZZ Rvg, Rvgi AvBj, motKi wKbviv, ewoi Avwzvbvq e`vcK JIwa DwM` Rtb¶| GMtjvi  
cwi wPwZ | e`envi bv Rvbvq GB gj`evb mæut` i e`vcK AcPq nt`Q| GMtjvi mpye`envi  
wbwÖZ KitiZ cvi t j , Gi gva`tg cÖwgK `v` tmev mn AtbK RvUj tivM cÖZKvi | cÖZtvtã  
e`vcK mnvqK ntZ cvi t | mpycwi Kí bv MhY, mvavi b RbMb mn GB mKj wPwKrmv tckvq  
wb tqvRZt` i | KvgDwbwU wKwbK KgPZ KvgDwbwU tnj\_ tcfvBWvi t` i cÖk¶b cÖvb, tFIR  
DwM` i cwi wPwZ | e`envi mæut`K`nvZ Kjtq wK¶v vb Ges RbMtbi `v` mj ¶vq Gi  
e`envi wbwÖZKiY cFvZi gva`tg AvMvgxi `v` mj ¶vq tFIR DwM` mgn \_i`ZcY`FvgKv  
ivLtZ m¶¶g nte etj Avgvi vektm|

eZgvtb evsjvt`k weifbæbb KvgDwbKtj tivM thgb: tg`w`Zv (IteimwU), D`Pi³Pvc,  
ü`tivM, WqvteUj, Av`BwUj, t`K, K`vbmvi cFvZi cÖ`f`e thgb e`vcKvnti evotQ,  
tZgnb miKvi GKK wPwKrmv c×wZ w`tq G\_tjv tgvKwejvq wngwmg Lv`Q| w`b w`b t`tk  
GmKj tivtMi tivMx | nvmcvZvj msL`v evx cvt`Q| ein:wek` GmKj tivM cÖZKvi |  
cÖZtvtã AvqteP K, BDvbvz Z\_v tUwKbvj wPwKrmv c×wZ | nviejv tgvWwmtbi e`envi  
e`vcK evx tctqtQ| Avgv` i t`tkI GB mKj bb KvgDwbKtj tivMmgn cÖZKvi |  
cÖZtvtã AtbK GKK | thšMK tFIR JIa tek Kvhrix | \_i`ZcY`FvgKv ivLtZ cvi t |  
BtZvgta` Dbz wetk` b`vq evsjvt`tkI BDtvc, Avtgwi Kv, Atóij qv mn bvbv t`k ntZ nvi evj  
tgvWwmtbi cvkvcwk Gi KvPvgj Avg`wb Kti t`kxq tek wKQz cÖZwÖZ Gtjvc`wv\_K JIa  
Drcv`bKvix cÖZövb (`qvi, GKvg. BbtmPv, tiWtqÈ, WwM BÈv: cFvZ) nviejv JIa  
Drcv`b, evRviRvZKib | iBvbx KitiQ, hv evsjvt`tki Rb` Avkrev® wnmvte t`Lv w`tQ|



AvMvgrtZ GB JIa\_tjvi Pwn`v w`b w`b evotZ \_vKtj, axti axti Avgv`i t`kxq tRm`u` e`envti i gva`tg bZb bZb cZv`v bZb bZb cY` vbtq evRvti AviefZ nte| GtZ Kti MvtgUm vktii gZ JIa vktii cthvi NUte| fvel`tZ nvi evj tgvWmb vbtq covi bv Kiv tjvKej mn mKj tkbxi tvtKi e`vcK Kgm`vb mpoi m`tebv `Zix nte| GRb` h\_vh\_ KZetji AvMh, my`p I h\_vh\_ cwi Kíbv cVqtbi Avi` cQvRb|

Lv`kl` Drcv`b clv`vq `Re cthv` cQvM Ges mi Kvi x`v` e`v`vq GKK vPvKrmv c`vZi cvve Kvgtq, cVxb I t`kxq vPvKrmv e`v`v mgra Ašfvi gva`tg, mgvšZ vPvKrmv e`v`vcbv Kvvtgv Mto Ztj, vekvj cšK`vi`RbtMvöxi `v` tmev vbvÖZ mn Gi gvb Dbqtb h\_vh\_ Avi` c`v`c LvB Ri`ix| tmv`b Avi tekx`fi bq hLb mgvšZ vPvKrmv e`v`v abx I`v`v` AvKvL`vi cZdj b NUte|

# eU-cvKfoi wetqi mvt\_ i`vdvfbvevmKvi Mí

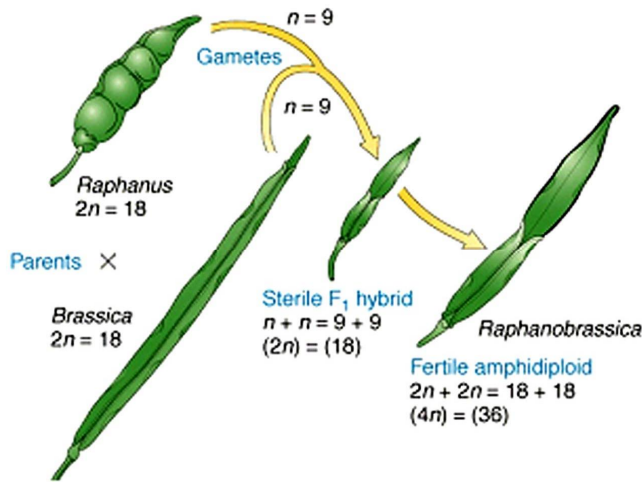
## W. vgvni jvj mrvv

Aa`vcK, Dw`mc veÁvb wefvM, XvKv wekpe`vj q

evsj vt`tki euj cPvni Z %wbK cwí Kv Óc\_g Avtj v0i Rvbyvwi 02, 2019 Gi msL`vq tj LK ÓAve`j tgvmb0 Gi 0hmj e`x eU-cvKp0 wktivbvgti tj LwU AvgvtK AvKó KtítQ| tmB AvKlFy gmbKMtÁi wNI i DctRj vi evnj qvtLvon BDwbqvti KvDwUqv Mvtg thtZ gb PvBtj I tj Lvi Zwm`Uv teva Kwí GKUy tenk| ZvBtZv ágtYi cwí etZ`nj LtZ etm tMj vg| tj Lvi i`tZB KZÁZv cKvk KivQ 0hmj e`x eU-cvKp0 tj LwU i tj LK Rbve Aváj tgvmtbi cwZ| tj LwU Avng gb w`tq ctowQ| cotZ cotZ Avng thb Avgvi wekpe`vj tqi QvÍ Rxeftb wcti tMj vg| gtb ct0 tMj Avgvi Ab`Zg wq wK`K ÓAa`vcK Avntg` kvgmj Bmj vg0-Gi cv`vtbi K\_v| tmB cv`vtbi mvt\_ Ave`j tgvmtbi tj Lvi thvMm` LjR t`Lv|

tmB thvMm` LjRtZ Avgvi wekpe`vj tqi QvÍ Rxeftbi GKUy`SvZPviY Kitz eC Bt`Q KitzQ| Avng ZLb m`yb 3q etlP শিক্ষার্থী। আহমেদ শামসুল ইসলাম স্যার আমাদের প্ল্যান্ট ব্রিডিং বা mcrRbb we`v covtZb| Avgvi tj Lvi cvK tenki fVMB Dw`mc veÁvtbi wK`v`Pntj I weWvs ev mcrRbb we`v m`fU wKQy GKUv avina dite chai। প্ল্যান্ট ব্রিডিং হলো উদ্ভিদবিজ্ঞানের একটি cxtqwmK wetq thLvtb gvbtI Kj`vtY ev Pvn`v Abhvqx dmj Dw`t`i Dbz `kwkó` wwkó RvZ D`teb ev `kwkó`i cwí eZ0 Kiv wbtq Avtj vPbv I MtelYv Kiv nq| A`f cvKwZK dmj ntZ `kwkó` c`wZtZ Dbz `kwkó`i Dw`d prakron ubabn prakriyakei বলে প্ল্যান্ট ব্রিডিং। mrvaviYZ Dw`mc wePb Ges msKivqvti gva`tg Dbz `kwkó`m`úbeDw`mc cKiY D`teb Kiv ntq `vtK| `yU we`k wePZ Dw`t`i gta` Kwí gfvte civMvqb NvUvtbvi c`wvqvtKB ejv nq msKivqb| msKivqvti gva`tg mó Dw`t`K ejv nq msKi Dw`t` | GLvtb etj ivLv fvtjv th cvKwZKfvteI GgbwU NUtZ cvti| thgb Avng Avgiv `kkte t`tLwQ Kjtgi gva`tg UKeoB MvtQi Dci Kj eoB MvtQi Kj g j wMtg Kj eoB MwQ %Zwi Kitz| Gaitbi D`teb AvgvtK LpB AvKó Kiz| hw` I GuU msKivqb c`wZ bq Zey tKŠZntji Kvrgei ubllex korlam। ইসলাম স্যারের পাঠদানের কৌশলগুলো আমাকে বড়ই আকৃষ্ট করত। প্ল্যান্ট ব্রিডিং-Gi GKwU Kv`m Kwí g msKivqb cv`vtbi mgq wwkó veÁvbx Kv`c`mt`/avi D`teb wbtq GKUv mwZ` Mí etj wQjtj b| AvR tmB Mí w`tq eU-cvKfoi wetqi Mí i thvMm` Ztj aie| tmB thvMm` Avtj vPbv Kitz wMtg `bvab` veÁvbx Kv`c`mt`/av Ges Zwi D`teb wbtq GKUy Avtj vPbv Kiv `i Kvi |

ৱেÁবখ ক্বচফ্রম্‌ইবি চ্‌বি বর্গ ন্‌জি ৱR ৱW ক্বচফ্রম্‌ইবি (G. D. Karpechenko) | ৱZৱ 1899 ম্‌জি eZঞব ইব্বকব্‌ক ev চ্‌ফেঁ ত্মৱফ্‌জ BDৱব্‌ক RbWৱY K্‌িবি | c্‌g ৱK ৱZৱ ৱQ্‌জ B Gকজন জীববিজ্ঞানী । পরবর্তীতে তাঁর গবেষণার বিষয় ছিল কোষবিদ্যা এবং সুপ্রজননবিদ্যা বা প্ল্যান্ট ৱেৱস | ৱZৱ Zবি হ্‌ম্বস্‌কারী সব গবেষণার মাধ্যমে প্ল্যান্ট ব্রিডিং-G Amvgb“ Ae`vb ti†L t†Qb | Avgvi tj Lb†Z Zব্‌K k&vf†i `ঞiY KiৱQ | ৱZৱ msKivq†bi gva`†g tek ৱKQymsKi Dৱ`† i mৱó K্‌িৱQ†j b | Zvi g†a“ Abেঁ i`vdv†bve†mKv (Raphano brassica) msKi Dৱ`† i D™েব K্‌ি Dৱ`† ৱেÁবখ†` i g†S ৱZৱ Aৱে`ঞiYxq n†q Av†Qb | ত্‌মB msKi Dৱ`† i D™েব ৱব†q ৱKQy ৱj L†Z t†M†j B Dৱ`† ৱেÁব ৱেফ্‌†Mi Avgvi ৱcq ৱক†K Aa`vcK Av††g` kvgmj Bmj vg m`††i K\_v গনে পড়ে যায় । প্ল্যান্ট ব্রিডিং এর ক্লাসে তিনিই আমাদেরকে এই উদ্ভাবনের কথা c্‌g i ৱব†q ৱQ†j b | msKivq†bi K\_v ৱপ্‌স্‌ K্‌িB ৱেÁবখ ক্বচফ্রম্‌ইবি ৱে†K† GKait†bi msKi Dৱ`† mৱó ৱপ্‌স্‌ K্‌িৱQ†j b | ৱপ্‌স্‌fveb ৱU Ggb ৱQ†j th gjv Ges evঞvKৱc msKivq†bi gva`†g হৱ` Ggb †Kv†b Dৱ`† cv†qv hvq hv t††K gjv Ges evঞvKৱci `† ev `bve†j GKB m†` cv†qv hv†e! †Kb Ggb ৱপ্‌স্‌fveb Zvi e`L`ৱU n†jv, Avgiv gjv M††Q†i gj† Avi evঞvKৱci cvZ† tL†q `ৱK | GB `j M††Q†i msKivq†bi dt†j হৱ` Ggb msKi Dৱ`† cv†qv hvq hvi cvZ† Ges gj† Dfqb L†qv hv†e! Zvi ত্‌মB fvebvi Ab`Zg D†xcK ৱ†††e ৱQ†j b ৱে†Kó W`wbk †K† ৱেÁবখ At†e† ৱ††Ä (Otto Winge) । অষ্ট্রো ভিঞ্জের ধারণা হয়েছিল প্রকৃতিতে পলিপ্লয়েড Dৱ`† প্রজাতির সৃষ্টি হয় । হঠাৎ করে আলোচনার মধ্যে পলিপ্লয়েড চলে এল তাই পলিপ্লয়েড কী তাঁর একটু e`L`†`qv`†iKvi |



ৱপ†: ৱেÁবখ ক্বচফ্রম্‌ইবি msKivq†bi gva`†g i hv††bve†mKv (*Raphanobrassica*) D™েব |

উচ্চতর জীব (উদ্ভিদ বা প্রাণী) সাধারণত ডিপ্লয়েড অর্থাৎ দৈহিক কোষে দুই সেট (2n=2x) ক্রোমোজোম থাকে। দুই সেটের অধিক ক্রোমোজোম থাকলে তাকে পলিপ্লয়েড উদ্ভিদ বলে যেমন avb ডিপ্লয়েড (*Oryza sativa*, 2n=2x=24) Dw<sup>MC</sup>, Ab<sup>w</sup> tK Kjv (*Musa sp.*, 2n=3x=33) ট্রিপ্লয়েড উদ্ভিদ। অটো ভিজের প্রাকৃতিকভাবে সৃষ্ট পলিপ্লয়েডের ধারণা t<sub>1</sub>t<sub>2</sub>KB Kvtc<sup>MC</sup> t<sub>1</sub>t<sub>2</sub> gjv (*Raphanus sativus*, 2n= 18rr) Ges evavKwci (*Brassica oleracea*, 2n=18, cc) msKivqtbi wPŠ<sup>w</sup>fvebv KtiwQ<sub>1</sub>t<sub>2</sub>b|GB `wJ Dw<sup>MC</sup> B Avevi 0<sub>1</sub>ym<sub>1</sub>dwi 0<sub>2</sub> cwi evi f<sub>1</sub> meiwR RvZxq dmiw Dw<sup>MC</sup> | Df<sub>1</sub>q cRwZi Dw<sup>MC</sup> i t<sub>1</sub>vt<sub>1</sub>gt<sub>1</sub>Rvg msL<sup>v</sup>wQ<sub>1</sub> (2n= 18) | tmKvi tY msKi Dw<sup>MC</sup> cvl qv L<sub>1</sub> t<sub>1</sub>wk K<sub>1</sub>wb n<sub>1</sub>ebv etj we<sub>1</sub>Avbx Kvtc<sup>MC</sup> t<sub>1</sub>t<sub>2</sub> vi aviYv n<sub>1</sub>q<sub>1</sub>wQ<sub>1</sub> | tmmgt<sub>1</sub> i `w<sub>1</sub>t<sub>2</sub> wKbv A<sup>TM</sup>Z fvebv etj g<sub>1</sub>t<sub>2</sub> n<sub>1</sub>Z cv<sub>1</sub>i!Kvtc<sup>MC</sup> t<sub>1</sub>t<sub>2</sub> Zwi wek<sub>1</sub>t<sub>1</sub>m AUJ t<sub>1</sub>t<sub>2</sub> K D<sup>3</sup> `wJ Dw<sup>MC</sup> i g<sub>1</sub>t<sub>2</sub> K<sub>1</sub>w<sub>1</sub>gf<sub>1</sub>te msKivqb Nw<sub>1</sub>t<sub>1</sub>q<sub>1</sub>wQ<sub>1</sub>t<sub>2</sub>b Ges mdj f<sub>1</sub>v<sub>1</sub>te msKi Dw<sup>MC</sup> | t<sub>1</sub>t<sub>2</sub>q<sub>1</sub>wQ<sub>1</sub>t<sub>2</sub>b| cv<sub>1</sub>B F1 msKi Dw<sup>MC</sup> wJ (2n= 18, rc) e<sub>1</sub>U<sup>v</sup> msKi Dw<sup>MC</sup> wQ<sub>1</sub>, thL<sub>1</sub>v<sub>1</sub>t<sub>2</sub> eskMwZwe<sup>v</sup> vi RbK t<sub>1</sub>g<sub>1</sub>t<sub>2</sub>U<sub>1</sub>t<sub>2</sub> i eskMwZi w<sub>1</sub>bqgv<sub>1</sub>ym<sub>1</sub>t<sub>1</sub>i B gjv t<sub>1</sub>t<sub>2</sub> K 9wJ (r t<sub>1</sub>mU) t<sub>1</sub>vt<sub>1</sub>gt<sub>1</sub>Rvg Ges evavKwci t<sub>1</sub>t<sub>2</sub> K 9wJ (c<sub>1</sub>t<sub>1</sub>mU) t<sub>1</sub>vt<sub>1</sub>gt<sub>1</sub>Rvg এসেছে। বক্যা ডিপ্লয়েড হওয়ায় উর্বর msKi %Zwi i j t<sub>1</sub>t<sub>2</sub> F1 msKi Dw<sup>MC</sup> t<sub>1</sub>K<sub>1</sub>v<sub>1</sub>wP<sub>1</sub>wP<sub>1</sub>b bvgK অ্যালকালয়েড প্রয়োগ করা হয়। কোলচিচিন মাইটোসিস কোষ বিভাজনের সময় কোষ প্লেট সৃষ্টিতে evav t<sup>q</sup> dtj wefvwRZ t<sub>1</sub>vt<sub>1</sub>gt<sub>1</sub>Rvg GKB t<sub>1</sub>K<sub>1</sub>v<sub>1</sub>t<sub>1</sub> i g<sub>1</sub>t<sub>2</sub> i<sub>1</sub>t<sub>2</sub> hvq| dtj AcZ<sup>v</sup> t<sub>1</sub>K<sub>1</sub>v<sub>1</sub>t<sub>1</sub> t<sub>1</sub>vt<sub>1</sub>gt<sub>1</sub>Rvg msL<sup>v</sup> gvZ<sub>1</sub>t<sub>1</sub>K<sub>1</sub>v<sub>1</sub>t<sub>1</sub> i t<sub>1</sub>vt<sub>1</sub>gt<sub>1</sub>Rvg msL<sup>v</sup> i t<sub>1</sub>t<sub>2</sub>q<sub>1</sub> w<sub>1</sub>Y n<sub>1</sub>t<sub>2</sub> hvq| GB cw<sub>1</sub>u<sub>1</sub>q<sub>1</sub>vi g<sub>1</sub>v<sub>1</sub>t<sub>2</sub>g কৃত্রিমভাবে প্রাকৃতিক ডিপ্লয়েড উদ্ভিদ থেকে পলিপ্লয়েড উদ্ভিদের সৃষ্টি করা হয়। এভাবেই কা<sup>MC</sup> t<sub>1</sub>t<sub>2</sub> কোলচিচিন প্রয়োগে বক্যা ডিপ্লয়েড সংকরকে উর্বর A<sub>1</sub>t<sub>1</sub>U<sub>1</sub>t<sub>1</sub>w<sub>1</sub>U<sub>1</sub>প্লয়েড (2n=4x=36, rrcc) Dw<sup>MC</sup> cwiYZ K<sub>1</sub>t<sub>1</sub>b Ges bvg t<sup>b</sup> i<sup>v</sup>vdv<sub>1</sub>t<sub>1</sub>bvevmKv (*Raphano brassica*)| th g<sub>1</sub>l<sup>v</sup> D<sub>1</sub>t<sub>1</sub>t<sub>2</sub> k<sup>v</sup> wZ<sub>1</sub>wb gjv Ges evavKwci g<sub>1</sub>t<sub>2</sub> msKivqb K<sub>1</sub>t<sub>1</sub>wQ<sub>1</sub>t<sub>2</sub>b tm D<sub>1</sub>t<sub>1</sub>k<sup>v</sup> mdj bv n<sub>1</sub>t<sub>2</sub> | wZ<sub>1</sub>wb mdj Zvi m<sub>1</sub>t<sub>1</sub> msKi Dw<sup>MC</sup> wKB t<sub>1</sub>t<sub>2</sub>q<sub>1</sub>wQ<sub>1</sub>t<sub>2</sub>b|cv<sub>1</sub>B i<sup>v</sup>vdv<sub>1</sub>t<sub>1</sub>bvevmKv Dw<sup>MC</sup> wJ P<sub>1</sub>win<sup>v</sup> vi wecixZ ag<sub>1</sub>w<sub>1</sub>we<sub>1</sub>nkó msKi Dw<sup>MC</sup> wQ<sub>1</sub> | A<sub>1</sub> i<sup>v</sup>vdv<sub>1</sub>t<sub>1</sub>bvevmKv i cvZv Ges c<sub>1</sub>úg<sub>1</sub>Äwi wQ<sub>1</sub> gjvi gZ Ab<sup>w</sup> tK gj wQ<sub>1</sub> evavKwci g<sub>1</sub>t<sub>2</sub> | G<sub>1</sub>t<sub>2</sub>KB etj A<sup>ó</sup>, 0<sub>1</sub>gv<sub>1</sub>l<sup>v</sup> f<sub>1</sub>v<sub>1</sub>te GK Avi nq Av<sub>1</sub>t<sub>1</sub>K<sub>1</sub>0<sub>1</sub> | GB n<sub>1</sub>t<sub>2</sub>v i<sup>v</sup>vdv<sub>1</sub>t<sub>1</sub>bvevmKv msw<sub>1</sub> B<sub>1</sub>wZ<sub>1</sub>nm, th<sub>1</sub>U N<sub>1</sub>t<sub>1</sub>U<sub>1</sub>wQ<sub>1</sub> 1922 m<sub>1</sub>t<sub>1</sub> i w<sup>t</sup> K |

GLb w<sub>1</sub>t<sub>1</sub> hvB Ave<sup>j</sup> t<sub>1</sub>g<sub>1</sub>w<sub>1</sub>g<sub>1</sub>t<sub>1</sub>bi t<sub>2</sub> L<sub>1</sub>w<sub>1</sub>t<sub>2</sub>Z | th t<sub>2</sub> L<sub>1</sub>v t<sub>1</sub>t<sub>2</sub> K R<sub>1</sub>v<sub>1</sub>b<sub>1</sub> t<sub>1</sub>M<sub>1</sub>, AvovB k eQi c<sub>1</sub>te<sup>o</sup>A<sub>1</sub> A<sub>1</sub>ó<sup>v</sup> k kZv<sub>1</sub>xi ga<sup>v</sup>fv<sub>1</sub>t<sub>1</sub>M g<sub>1</sub>w<sub>1</sub>bKM<sub>1</sub>t<sub>1</sub>Äi GK cz<sup>š</sup>-M<sub>1</sub>t<sub>1</sub>gi GK ex<sub>1</sub>v cvkvc<sub>1</sub>wk eU | cvK<sub>1</sub>t<sub>1</sub>oi P<sub>1</sub>ri<sub>1</sub>v j w<sub>1</sub>M<sub>1</sub>t<sub>1</sub>q<sub>1</sub>wQ<sub>1</sub>t<sub>2</sub>b | ex<sub>1</sub>v w<sub>1</sub>b<sub>1</sub>t<sub>1</sub>RB P<sub>1</sub>ri<sub>1</sub>v `w<sub>1</sub>U i cwi Ph<sub>1</sub> K<sub>1</sub>t<sub>1</sub> i eo K<sub>1</sub>t<sub>1</sub>wQ<sub>1</sub>t<sub>2</sub>b | K<sub>1</sub>t<sub>1</sub>q<sub>1</sub> eQi ci eU | cvK<sub>1</sub>p M<sub>1</sub>t<sub>1</sub>Q dj Av<sub>1</sub>t<sub>1</sub>m | wZ<sub>1</sub>wb Kx t<sub>1</sub>f<sub>1</sub>te c<sub>1</sub>ü<sub>1</sub>w<sub>1</sub>Z eU | cvK<sub>1</sub>t<sub>1</sub>oi g<sub>1</sub>t<sub>2</sub> we<sub>1</sub>t<sub>1</sub>q<sub>1</sub> w<sup>t</sup> t<sub>1</sub>q<sub>1</sub>wQ<sub>1</sub>t<sub>2</sub>b | Z<sub>1</sub>v<sub>1</sub>t<sub>2</sub> Kx `w<sub>1</sub>dv<sub>1</sub>? eU cvK<sub>1</sub>t<sub>1</sub>oi we<sub>1</sub>t<sub>1</sub>q A<sub>1</sub> eU | cvK<sub>1</sub>p (*Ficus religiosa*) Gi g<sub>1</sub>t<sub>2</sub> msKivqb | Ficus MYf<sub>1</sub> c<sub>1</sub>Rw<sub>1</sub>Zi Dw<sup>MC</sup> i t<sub>1</sub>vt<sub>1</sub>gt<sub>1</sub>Rvg msL<sup>v</sup> m<sub>1</sub>v<sub>1</sub>viYZ GKB (2n = 26) nq etj t<sub>1</sub>R<sub>1</sub>t<sub>1</sub>w<sub>1</sub>Q | tmB

e. vi t. p. v. t. g. v. t. R. v. g. m. a. t. U. t. K. v. t. b. v. a. v. i. Y. v. t. e. v. a. K. v. i. u. Q. j. b. v. | w. e. A. v. t. b. i. a. v. i. Y. v. b. v. \_v. K. t. j. | Z. v. i. w. P. S. -  
v. f. v. e. b. v. u. Q. j. w. e. A. v. b. m. a. s. Z. | t. m. K. v. i. t. Y. B. n. q. t. Z. v. G. K. B. M. Y. f. y. B. D. w. m. t. i. g. t. a. c. v. K. u. Z. K. f. v. t. e.  
m. s. K. i. v. q. t. b. i. G. K. u. c. w. i. t. e. k. m. i. o. K. i. v. i. j. t. q. B. e. U. | c. v. K. p. M. v. Q. t. K. c. v. k. v. c. v. k. t. i. t. L. c. w. i. P. h. f. i.  
D. t. i. k. B. u. Q. j. G. K. M. v. t. Q. i. d. t. j. i. c. i. v. M. t. i. Y. y. A. b. M. v. t. Q. i. d. t. j. w. M. t. q. c. i. v. M. v. q. b. N. u. U. t. q. m. s. K. i. D. w. m. t. m. i. o.  
K. i. v. | G. i. m. c. t. q. | w. e. i. k. o. W. w. i. b. k. t. K. v. | w. e. A. v. b. x. A. t. E. v. w. f. t. A. t. R. v. o. w. t. q. B. e. t. j. t. Q. b. t. h. c. K. u. Z. t. Z.  
c. v. K. u. Z. K. m. s. K. i. v. q. t. b. i. g. v. a. t. g. b. Z. p. b. Z. p. পলিপ্রয়েড D. w. m. t. i. m. i. o. n. q. | A. v. g. v. i. A. v. R. t. K. i. t. j. L. v. u. K. S.  
G. B. e. U. - c. v. K. t. o. i. w. e. t. q. t. K. B. t. K. «K. t. i. | A. o. v. k. k. Z. v. a. x. i. g. a. f. v. t. M. g. w. b. K. M. t. A. i. t. m. B. m. a. s. y. b. x. q. e. x. v.  
কিন্তু প্ল্যান্ট ব্রিডার ছিলেন না, তবে তাঁর ভাবনাটি ছিল প্রকৃত c. t. q. | প্ল্যান্ট ব্রিডার - G. i. g. Z. B. | c. v. w. t. K. i. v.  
w. b. o. q. B. A. v. g. v. i. m. v. t. \_ G. K. g. Z. n. t. e. b. t. h. e. x. v. i. t. m. B. w. P. S. v. f. v. e. b. v. c. L. v. Z. i. w. k. q. v. b. w. e. A. v. b. x. K. v. t. c. f. m. t. 1/4. v. i.  
g. Z. b. q. u. K. ? A. \_ f. i. G. t. t. k. i. B. c. Z. s. - G. K. M. v. g. b. v. i. x. i. w. P. S. v. f. v. e. b. v. e. Z. g. v. b. w. e. A. v. b. R. M. t. Z. i. G. K. R. b.  
পরিণত প্ল্যান্ট ব্রিডার মতই ছিল। আমার এই লেখার মাধ্যমে আন্স্টি K. A. w. f. b. b. R. v. b. j. v. g. t. m. B.  
e. x. v. t. K. | t. m. B. m. v. t. \_ a. b. e. v. R. v. b. B. A. v. e. j. t. g. w. g. b. t. K. % w. b. K. c. w. i. K. v. o. c. g. A. v. t. j. v. o. q. c. K. v. i. k. Z. Z. v. i.  
o. h. m. j. e. x. e. U. - c. v. K. p. o. c. e. t. U. i. R. b. | t. h. t. j. L. v. i. g. t. a. A. w. i. g. L. t. R. t. c. t. q. u. A. o. v. k. k. Z. v. a. x. i. g. a. f. v. t. M.  
G. t. t. k. i. B. G. K. e. x. v. i. m. s. K. i. v. q. t. b. i. w. P. S. v. f. v. e. b. v. i. K. \_ v. | D. b. z. w. e. t. k. | Z. L. b. G. g. b. w. P. S. v. f. v. e. b. v. u. Q. j. u. K.  
b. v. A. v. g. v. i. R. v. b. t. b. | Z. \_ v. b. y. n. U. v. t. b. n. q. t. Z. v. G. i. K. g. A. v. i. | A. t. b. K. Z. \_ A. v. g. v. t. i. g. v. t. S. D. c. w. m. c. Z.  
n. t. e. G. g. b. w. e. k. l. m. t. i. t. L. A. v. R. t. K. i. t. j. L. v. G. L. v. t. b. B. t. k. l. K. i. u. Q. |

# Avgte® K c×wZtZ tiM cÖZKvi I cÖZtiŧa Avcbvi mŧPZbZv Ges AvZ cwiwPZ tŧIR Dvŧ` i e`envi

## Wv. AgZ Kgvi miKvi

we.G.Gg.Gm (Xv.we.), we.GBP.wW. (˘jvi) Rv.we.

cŧvI K (Dvŧgŧm Gŧ dvgŧmDwJK), mi Kvi x BDvbx I Avgte® K tgvWŧKj Kŧj R I nvmcvZvj  
wgicj-13, XvKv-1221

Avcbvi ˘ŧ` Avcbvi B nŧZ, GKUz mŧPZbZvq Avciwb \_vKŧZ cvŧib wŧtiwM, mj` I mvej xj |  
AŧŧŧKi KvŧQB K\_vUv Aev`e gŧb nŧZ cvŧi, wKš` cvWK GKUz fveŧb ŧZv ŧKvb KviY Qvov  
Avcbvi Avŧk cvŧk, Avcbvi cwi evi, mgvR, ŧ`k ev c\_w\_extZ ŧKvb wKQy wK NŧU? NŧUbv |  
A\_ŧ th ŧKvb NUBvi wcQŧbB ŧKvb bv ŧKvb KviY \_vŧK, ŧiM e`waI Gi e`wZµg bq | th ŧKvb  
tiwM Avgvŧ` i ŧ`n gŧb evmv evavi wcQŧbl i ŧŧŧQ mybw`ŧ KviY | Avgiv mŧavi b Rb tenki fvM  
ŧŧŧŧB wfbœwfbœŧiŧMi wfbœwfbœKvi b mœúŧK®AeMZ bv \_vKvq, Avgvŧ` i cÖZ`wK Kgŧvŧŧ  
Zvi cÖZdj ŧb e`\_Zvi KviŧY tiwMµvš`-nŧq cwo | GKUz ŧLqvj Kiŧj A\_ŧ wŧŧRi kixi I  
gŧbi cÖZ GKUz gŧbvŧhvM w`ŧj AŧbK ŧŧŧŧB tiwMi KviY \_ŧjv Avgiv Abŧe KiŧZ cvie |  
wKfvte, GKUze`vL`v Kiŧj B weliw cwi®vi nŧq hvte | c\_w\_exi cŧPxbZg wPwKrmveÁvb nŧjv  
Avgte®, hv GB Dcgnvŧ`ŧki wŧR`^mµŧ | Bnv Avgvŧ` i Mŧe® I Anskvŧii wPwKrmv c×wZ |  
GB wPwKrmveÁvb Gi AŧbK wbgqKvbŧ Avgiv tRŧb bv tRŧb cvj b Kŧi Pwj , KviY G\_ŧjv  
Avengvb Kvj ŧ\_ŧK Avgvŧ` i ev½wvj Kwó, HwZn` I ms`wZi mvŧ\_ wŧŧj wŧŧk GKvKvi nŧq  
ŧMŧŧQ | Avgvŧ` i gjeyŧ` i wŧKU nŧZ ˘b w`b Kgŧvŧŧi wewfbœŧŧŧŧ GLbl ŧh mKj wewa  
eva`KZv Avŧivc Kiv nq, ŧm\_ŧjvi tekxi fvMB ˘ŧ` mj ŧŧvq mŧvqK | Aek` Kvŧj i weeZŧb  
wewa wŧŧla \_ŧjvi weKwZi Kviŧb AŧbŧKB G\_ŧjvŧK Kms`vi wŧmvte Mb` Kŧi |

Avgte® K wPwKrmvi AŧbK ZÉß GLb Avgvŧ` i cÖZ`wK PPŧ Ask nŧq ŧMŧŧQ | Avgte® K  
wPwKrmv weÁvb Gi gŧZ Avgvŧ` i kixŧi 13 wU ˘ŧfvweK cÖKwZK teM we`gvb | thgb: ŧŧav,  
ZöV, gj , gjŧ . nwwP, Kwik, Ngj, nvBŧZvj v, nwm, Kvbœ, thšb teM cŧwZ | GB mKj teM kixŧi  
Dcw`Z nŧj mŧ½ mŧ½ avib bv Kŧi thgb ZvŧZ mvov ŧ` I qv DvPr, ŧZgvb cÖKwZKfvte Dcw`Z  
bv nŧj tRvi Kŧi nwwRi KiŧZ tbB | Gi e`Zq NUŧj Avgvŧ` i kixŧi AŧbK tiwM nŧq \_vŧK |  
`ß GKwD`vniŧb e`cvi wU GKUzcwi®vi KiŧZ PvB, thgb ŧŧavi teM avib Kiŧj A\_ŧ hLb  
ŧŧav j vŧM ZLb Lvevi bv ŧLŧj , nvBcvi GmwwwU, eŧK Rvjv (Bŧmvd`vMvBwU), ŧccwUK Avj mvi ,

cFvZ tivM thgb ntq vtk, Avevi teM bv AvmtZ ZvtZ mvov w`tj (A\_ŕ ŕlav bv vKtj l Lvevi tLtj) ewg, Wvqwi qv, Avgvkq, e`nRg, Ai`Px, AwMgv` (ŕlavg`), cFvZ bvbvnea tivM ntZ cvti | Avevi gj teM avib Kitj tKvóKwWb, Ak, Gbj vdmvi, fM`i (vd ÷ j v) mn AtbK RvUj tivM mvó nIqvi m`tebv teŕo hvq | Ggvb Kti cŕZvU kvvixK teMavt`b`xNŕ tbi PPŕq AtbK tŕvU eo RvUj tivM Avgv`i kixti evmv ewta | GB mKj Kz Af`vtmi KviŕYB Avgv`i kixtii Avakvsk tivM ntq vtk | Avi gvbvMk tivM gtb evmv ewavi Avgteŕ K Kvib ntjv cŕvciva | Avbx tjvK tRtb eŕS Ab`vq Kitj, GB Ab`vq RvbZ weŕteŕKi `skb Gi KviŕY DŕŕM, DrKÉv, `jŕšv, tUbkbcFvZ t\_ŕK Avakvsk gvbvMk tivMmi DrcvÉ nq | ZvB gvbvMk tivM cŕZKvi l cŕZt`vta, cŕvciva mn ivM, Blŕ, tŕl, Nbv cFvZ vbqšŕbi e`v KitZ nte | Gŕvov mŕ`t`n mŕ`gb vbtq`xNRxeb j vŕf Avgteŕ i wevfbe vbt`Rbv, thgb: w`bPPŕ, iw`lPPŕ, FZPPŕ, thvMvf`m, Avnvi wenvi vbqšŕ cFvZ tg`tB Pj v DvPr | GB wvqMŕjv e`vcK Avtj vPbvi cŕqvRb, m`icvimi e`vLv KwWb, cieZŕZ G\_ŕjv vbtq Avtj vPbvi AvKvsLv iBj |

cŕPxb Avgteŕ K vPvKrmvc`vZŕZ t`n l gtb mg`-tivMmi KviY ŕjvK vZbvU mvavib Kvitb GKxŕvZ Kiv ntqtQ | G\_ŕjv ntjv AmvZBv`ŕv`msthvM, cŕvciva, Kvj ev cvibvg | AmvZBv`ŕv`msthvM ntjv kixtii Bv`ŕmgŕni (Pŕŕz, KY, bvmKv, n\_ c, wj 1/2, thvbx cFvZ) Rb`mnbxq gvŕvi Kg ev tekx e`envi (A\_ŕ AvZ Kg ev AvZ tekx Avtj vŕZ t`Lv, AvZ Kg kã ev AvZ tekx ktãi gta` Ae`vb BZ`w` Ggvb fŕte Ab`vb` Bv`ŕq`i Rb`cŕhvR`) Gi Kvitb tivM mvó nq | cŕvciva vbtq cteB Avtj vPbv Kiv ntqtQ, Kvj ev cvibvg ej tZ, FZ cvieZŕ RvbZ cFvte mŕ tivM Ges wevfbe`Nŕbv RvbZ KviŕY mŕ tivM mgnŕK eŕvŕbv ntqtQ | GB mKj mg`-tivM cŕZt`iva l cŕZKvŕii vbt`Rbv Avgteŕ we`gvb | eZŕvŕb Avgv`i cŕZ`vK Rxeŕb mgvŕRi Avakvsk tvŕki gta` mvavib Rŕi, mw`KvK, Gj vvr`mn vKŕz RvUj kŕmKó (nucvb), D`Pi<sup>3</sup>Pvc, gŕŕgn (WvqvteUj), M`vŕBvUj, Avgvkq cFvZ tivMmi cŕfŕe j`ŕl` Kiv hvq | GB mKj tivM cŕZt`iva Avgvi ceŕj vPbv tek dj cŕy ntZ crti | Gevi GmKj tivM cŕZKvŕi Avgv`i Avtk cvtki AvZ cvi vPZ vKŕz tŕlR JIaxi e`envŕii gva`tg mŕlj j vŕfi Dcvq m`útk Avtj vPbv KitZ Pvb | cvWK GKUz tLqj Kti t`Lteb Avgv`i Mŕtgi cŕq cŕZvU ewotZ Kg tekx vbg, Zj mx, evmK (nvovK), tkdvj x, MÜfv`j, mvRbv, `eŕ, Rvg, tej cFvZ Dv`ŕ ŕjv iŕqtQ | Gŕvovl cŕZ`ŕki ivbe Nŕi Av`v, vcvqR, imp, vRiv, hgvb, `v`vPvb, j e1/2, tZRcvZv, tMj gviP, tgšix, tg\_x cFvZ iŕqtQ |

G<sub>3</sub>tjv e'envi KtiB c0\_ugK tivM mn AfbK RuUj tivM c0ZKvi mae| c0\_gZ ubqwgZ PPRq  
kviixK c0KuZK teM mgjni fvimvg' wdwiq AvbtZ nte Ges c0ZKvti Dctiv<sup>3</sup> tflR<sub>3</sub>tjv  
AwfA<sup>t</sup> i civgtk<sup>9</sup>bbggZ e'envi KitZ nte|

Rfi, mw<sup>9</sup>VvUv, nwp, Kwk G tivM <sub>3</sub>tj vtZ ubqg Kti Zj mx, Av`v, j e<sup>1/2</sup>, `vivPvb, tZRcvZv,  
evmK, tkdvj x dtj i cvZv cfwZ e'envi Kti Dckg cvlqv mae| thgb R<sup>t</sup>i i t<sup>9</sup>t<sup>t</sup> (FZz  
`evP<sup>t</sup> RibZ Kvitb m<sup>9</sup>, hvi mvt\_ mw<sup>9</sup>kixi e`\_v, nwp cfwZ we`gvb) tkdvj cvZvi im eqm  
tft<sup>3</sup> 1-4 Pv PvgP gv<sup>t</sup>vq GKUz Mig Kti `wbK 2-3 evi 2-3 w b tmetbB R<sup>t</sup>i t<sup>9</sup>t<sup>t</sup> Av<sup>t</sup>ivM<sup>3</sup>  
jvf mae| mw<sup>9</sup>Kwk, k<sup>9</sup>mK<sup>9</sup> cfwZ t<sup>9</sup>t<sup>t</sup> Zj mx, evmK I Av`vi im eqm tft<sup>3</sup> 1-4 Pv PvgP  
মধু/চিনি সহ সেবনে উল্লেখ্যম<sup>3</sup> DcKvi jvf mae| অম্ল<sup>9</sup>E (M<sup>9</sup>v<sup>9</sup>iB<sup>9</sup>U<sup>9</sup>m) tivM  
(wRiv+hgvbx+tg<sup>9</sup>six+Avgj Kx) c0Z<sup>9</sup>KuW mgcwi gvb GK<sup>t</sup>t<sup>9</sup> wgvktq 5-10 M<sup>9</sup>g 4 Kvc cwb<sup>t</sup>Z  
w<sup>9</sup>x Kti 1 Kvc \_vK<sup>t</sup>Z bwgtq t<sup>9</sup>U<sup>9</sup>K H JIax Ky\_ tivR 2-3 evi w<sup>9</sup>f<sup>3</sup> gv<sup>t</sup>vq 2 mBvn tmetb  
Avkvc<sup>0</sup> dj cvlqv hvq, 10-12 mBvn tmetb tivM Av<sup>t</sup>ivM<sup>3</sup> mae, Zte Gi mvt\_ Av<sup>t</sup>ivM wenvi  
Gi w<sup>9</sup>t<sup>9</sup> Rbv gvbv Avek<sup>9</sup>K| wbg MvQ Avgiv wPvb bv G iKg L<sup>9</sup>e Kg tjvKB Av<sup>t</sup>Q, wbg tK  
GK<sup>9</sup>esk kZw<sup>9</sup>ai AgZ e<sup>9</sup>ejv nq| w<sup>9</sup>tgi gj, cvZv, dj, dj, Kw meB JIax w<sup>9</sup>mv<sup>9</sup>te  
e<sup>9</sup>e<sup>9</sup>uZ nq| mKj c<sup>9</sup>Kvi Pg<sup>9</sup>ivM, `v, GK<sup>9</sup>U<sup>9</sup>Rgv, Pj Kw<sup>9</sup>b<sup>9</sup>Z wbgcvZvi im tmeb I ew<sup>9</sup>ik  
e'envi tek dj c<sup>0</sup>| GQrov UvBc UzWvqv<sup>9</sup>teU<sup>9</sup>m Gi t<sup>9</sup>t<sup>t</sup> c0Z<sup>9</sup>w b cY<sup>9</sup>q<sup>9</sup> e<sup>9</sup>w<sup>9</sup> 10 uU KuPv  
wbgcvZv 5 uU tMj gwi<sup>9</sup>t<sup>9</sup>Pi mvt\_ mKvtj Lwj tctU (e<sup>9</sup>vqvg I Lv<sup>9</sup> w<sup>9</sup>bq<sup>9</sup>sb mn) 6 mBvn tmetb  
i<sup>3</sup>kK<sup>9</sup>Pv w<sup>9</sup>bq<sup>9</sup>st<sup>9</sup>Y Av<sup>t</sup>m| m<sup>9</sup>Rbv Avgv<sup>9</sup>t<sup>9</sup> i L<sup>9</sup>eB cwi<sup>9</sup>PZ I Aet<sup>9</sup>nij Z GK<sup>9</sup>U<sup>9</sup> Dw<sup>9</sup>mc | Gi cvZvi  
c<sup>9</sup>o<sup>9</sup> b I Qj Gi JIax<sup>9</sup> b Rvtj Avgiv mevB Gi K<sup>9</sup> i KitZ<sup>9</sup> i<sup>9</sup> Kie| m<sup>9</sup>Rbv cvZvq c<sup>9</sup>o<sup>9</sup>  
GgvB<sup>9</sup>tbv GumW, w<sup>9</sup>fUw<sup>9</sup>gb I LwbR DcKib \_vKvq G<sup>9</sup>tK c<sup>9</sup>o<sup>9</sup> tevg ejv nq| m<sup>9</sup>Rbv cvZvtK  
M<sup>9</sup>itei gvsmI ejv n<sup>9</sup>tq \_vtK| w<sup>9</sup>bqwgZ m<sup>9</sup>Rbv cvZv kvK m<sup>9</sup>ai gZ tmetb AfbK tivM c0Z<sup>9</sup>tiva  
Kiv mae| GQrov m<sup>9</sup>Rbv Qvtj i im D<sup>9</sup>Pi<sup>3</sup> Pvc, evZ tivM, Pg<sup>9</sup>ivM cfwZ<sup>9</sup>Z DcKvix| m<sup>9</sup>Rbv  
ext<sup>9</sup>Ri `Zj ev<sup>9</sup>Zi e<sup>9</sup>\_vq gv<sup>9</sup>jk e<sup>9</sup>\_v Dckg nq| P<sup>9</sup>tj i mgm<sup>9</sup>v, mvB<sup>9</sup>tbv<sup>9</sup>mvB<sup>9</sup>U<sup>9</sup>m, mw<sup>9</sup>cfwZ  
tivM w<sup>9</sup>cqv<sup>9</sup>Ri R<sup>9</sup>o<sup>9</sup> tbB| D<sup>9</sup>P tKvtj<sup>9</sup>oi<sup>9</sup>j, D<sup>9</sup>Pi<sup>3</sup>Pvc, w<sup>9</sup>ev<sup>9</sup>b<sup>9</sup>evZ<sup>9</sup>tivM c<sup>9</sup>kg<sup>9</sup>tb imp AZ<sup>9</sup>š-  
Kv<sup>9</sup>h<sup>9</sup>Rix GK<sup>9</sup>U<sup>9</sup> JIax| mw<sup>9</sup>Kwk, cvvZb Avgv<sup>9</sup>q, Avgv<sup>9</sup>Z, mvq<sup>9</sup>U<sup>9</sup>Kv, t<sup>9</sup>M<sup>9</sup>UevZ cfwZ tivM  
M<sup>9</sup>Ufv<sup>9</sup>tj i cvZvi im w<sup>9</sup>ev<sup>9</sup>b<sup>9</sup>ev<sup>9</sup>te eqm tft<sup>3</sup> gv<sup>9</sup>t<sup>9</sup>v<sup>9</sup>h<sup>9</sup>vq<sup>9</sup> tmetb L<sup>9</sup>eB fvj dj cvlqv hvq|  
mvgvb<sup>9</sup> KuUv t<sup>9</sup>Qovq i<sup>3</sup>tivaK w<sup>9</sup>mv<sup>9</sup>te `e<sup>9</sup>Nv<sup>9</sup>mi e'envi Avgiv mevB Rvb, w<sup>9</sup>K<sup>9</sup> GB AvZ  
mvavib tflR<sup>9</sup>U th, Mf<sup>9</sup>sp<sup>9</sup>vš-AfbK t<sup>9</sup>gt<sup>9</sup>qj tiv<sup>9</sup>Mi DckgKviK Zv Avgiv K R<sup>9</sup>tb Rvb|  
cvKv tetj i kieZ kix<sup>9</sup>t<sup>9</sup>i w<sup>9</sup>o<sup>9</sup>Zv AvbqbKvix I tK<sup>9</sup>so cwi<sup>9</sup>viK, tetj i GB<sup>9</sup> b<sup>9</sup>tjvi mvt\_



Avgiv cwiwPZ ntj l, KWP tej iV th, Avgvkq, μwbK Wwqwi qv (AvB.ve.Gm), wki Wwqwi qvq  
LpB Kvhrix GB Z\_ , tj v Avgvt` i AtbtKiB ARvbv|

GBfvte Avgvi DctivLZ tFIR mn cKwZtZ we`gvb AmsL` tFItRi AMwbZ , b we`gvb|  
Avgiv GKUz Rvbvi tPón Kijtj B G\_ , tj v m`útkRvbtZ cvie Ges G mKj mnRc0c` tFIR  
mgfni mnR e`venvti tivM c0Ztiva l c0ZKvi KijtZ cvie| cWK GKUz Avcbvi Avtkcvtk  
AhtZæ Aetnjvq teto DVv tFIRMtjv m`útkGKUy fvj fvte tRtb ev hviv AeMZ Zvt` i  
civgk0Z tivM c0ZKvi l c0Ztivta e`envtii tPón Ki`b| GtZ Kti GKw tK Avcbvi  
wPwKrmv e`q thgb mvk0 nte, cikvcwk ivmvqwbK Jltai Aek`v`tex cike0Zwμqv t\_tK gP  
\_vKtZ cviteb| Aci ctq Avgvt` i t`kxq tFIR DwM` mgfni c0j b Z\_v e`envi ewx tctZ  
\_vKtj ivmvqwbK Jltai Dci wbf0Zv KgtZ \_vKte, Avi Gi gra`tgB Avgvt` i Aviva` mY` l  
wbtiVM t`tn`xN`Rxeb jvf m`e nte etj Avgvi vek0m|

# vecbœŋ eŋ cŕvz msi ŋtŋ- PÆMŋ vekŋe`vj q K`vœv

W. tgvvŋ Kgvj tnmvBb

cŕdmi, Bbv÷WJU Ae dti w÷<sup>a</sup>GÜ GbfvqibtgUvj mvtqŋYm,

PÆMŋ vekŋe`vj q, PÆMŋ

B-tgBj t mkhossain2009@gmail.com

## mPbt

cw\_exi mgMŎRxe RMZtK cœvYZt Dw<sup>™</sup> I cœY RMr wnmvte fVM Kiv nq| cw\_extZ Avgiv thme wevPÎ aiŋYi AbRxe, Dw<sup>™</sup> I cœYi mgvvi t`vL ZvB Rxe%evPÎ | GB AbRxe, cœY I Dw<sup>™</sup> mœfi Avgvŋ i Rxeb, RweKv I cwiŋetki mvŋ\_ AweŋQ`fite RwoZ| Rxe%evPÎ` cŎ È cY` Ges tmev Avgvŋ i A\_Œvzi gj Pviŋ Kv kv<sup>3</sup> | mvœcŎZK mgŋq`evPÎgg RxeKŋj i iŋv I msi ŋtŋ weÁvbx, bœvziwbaŋK, ivRbœvZwe`mn mgvŋRi mevB tmvPvi | RweK mœut`i msi ŋtŋ, Drcv`b Ges e`enviB Rxe`evPÎ`i A\_ŒvziK Zvrchœenb Kŋi | cŕvzi mi vmi e`enviK evRvi gj` Qvovl mvgvRK, mvs`vZK, cwiŋek, cŎZtek I Ava`vziK gj`gvb tKvb Astk Kg bq| Avgvŋ i cŎqvRŋbi ZvMŋ`B Rxe`evPÎ` msi ŋtŋ cŎqvRb, GQvov cw\_exi mœfi me wKQz msi ŋtŋ Avgvŋ i`vqZ; I KZŋe`i gŋa`B cŋo| cŎ`ŋ ev ctivŋfite Rxe%evPÎ` Avgvŋ i tetP`vKvi Rb` Acwi vnhœ cwiŋek, Rxe%evPÎ` msi ŋtŋ I DbœbŋK evsj vŋ`k mswevŋbi 18(K) AbŋQŋ` gj`bœvZ wntmte Aŋfœ Kiv ntqŋQ| GŋZ ejv ntqŋQ th, Ŏivœ eZŋvb I fivel`Z bvMvi Kŋ`i Rb` cwiŋek msi ŋtŋ I Dbœb Kwiŋeb Ges cŎKvZK mœv, Rxe%evPÎ`, Rj vfvŋ, eb I eb`cœxi msi ŋtŋ I wivcœv weavb KwiŋebŎ| eŋ mœv` t`ŋk bM` A\_œvŋq i GK wnmvte t`Lv hvq th, MvQ t`ŋk tgvU t`KR Drcv`b A\_ŋ vRwvŋcŋZ 12 nvRvi 390 tKvU UvKvi gj` msthvRb nq| evsj vŋ`ŋk cwi evi chœq MvQ j vMvŋbvi mvŋ\_ 74 j vL 26 nvRvi bvi x cŋ`I hŋ<sup>3</sup> AvŋQb| t`ŋki 29 j vL 59 nvRvi 608 w cwi evi MvQ j vMvŋbvi gva`tg wŋŋRi I t`ŋki A\_ŒvziK mPj tiŋLŋQ (cŎg Avŋjv, 26 Rj vB 2015)|

## cœY I Dw<sup>™</sup> `evPÎZvq evsj vŋ` kt

AvqZŋb tQvU ntŋ I ŋfŋMwŋj K Ae`vbMZ KviŋY evsj vŋ`k GK mgq Rxe%evPÎ` ficj wŋj | cwi msL`vŋb t`Lv hvq th, evsj vŋ`ŋk cœq 5,700 mcœúK Dw<sup>™</sup>, 708 cŕvzi gvQ (442 cŕvzi mvgŋ`K gvQmn), 34 cŕvzi DfPi, 154 cŕvzi mixmœ, 650 cŕvzi cvL I 121 cŕvzi `b`cvqx cœY we`gvb wŋj | evsj vŋ`ŋki mŋ`ietb 266 cŕvzi Dw<sup>™</sup>, 300 cŕvzi cvLx, 50 cŕvzi mixmœ, 8 cŕvzi DfPi, 177 cŕvzi gvQ, 24 cŕvzi vPsvW, 7 cŕvzi KvKWv, 16 cŕvzi kvŋK/wSbK, 3 cŕvzi K`Qc I 50 cŕvzi `b`cvqx cœY

AvtQ| Avgv` i wekym mMKfvte mtfKiv ntj G msL`v Avtiv evote| Zvte AvksKvi weiq-  
 wewfbaKviY thgb NwYSO, j ebv<sup>3</sup>Zv ep<sup>x</sup>, Rj evqy cwi eZ<sup>B</sup> RwbZ mg<sup>a</sup> c<sup>t</sup>oi D<sup>P</sup>Zv ep<sup>x</sup> |  
 AZ<sup>w</sup>ak m<sup>u</sup>` Avni<sup>t</sup>Yi dtj my<sup>`</sup> ietbi 2 c<sup>R</sup>wiZi DfPi, 14 c<sup>R</sup>wiZi mixm<sup>c</sup>, 25 c<sup>R</sup>wiZi  
 cvLx | 5 c<sup>R</sup>wiZi <sup>~</sup>b<sup>^</sup>cvqx c<sup>W</sup>Y u<sup>g</sup>uKi m<sup>q</sup>Lxb Ges vej<sup>β</sup> nI qvi c<sup>t</sup>\_ | evsj v<sup>^</sup>tk Dw<sup>m</sup>c |  
 c<sup>W</sup>Y Avb<sup>t</sup>Kvl (Encyclopedia of Flora and Fauna of Bangladesh) eB Abym<sup>t</sup>i tiKw<sup>R</sup>Z  
 c<sup>y</sup>uk Dw<sup>m</sup>c<sup>^</sup> i msL<sup>v</sup> Pvi n<sup>v</sup>Rv<sup>t</sup>i iI Kg| Aek<sup>^</sup> mgM<sup>0</sup>evsj v<sup>^</sup>tk, we<sup>t</sup>kl K<sup>t</sup>i K<sup>·</sup> evRvi, P<sup>A</sup>M<sup>0</sup>g,  
 cve<sup>Z</sup> P<sup>A</sup>M<sup>0</sup>g | w<sup>t</sup>jtj U ebv<sup>A</sup>t<sup>i</sup> i <sup>^</sup>M<sup>0</sup>g ebv<sup>A</sup>t<sup>i</sup> j mMK mtfKiv m<sup>q</sup>e ntj Aek<sup>^</sup>B G msL<sup>v</sup>  
 A<sup>t</sup>bK teto hvte etj Dw<sup>m</sup>c<sup>^</sup> ve<sup>A</sup>v<sup>b</sup>t<sup>^</sup> i wekym| me<sup>t</sup>kl 2015 m<sup>t</sup>jtj evsj v<sup>^</sup>tk eb M<sup>t</sup>elYv  
 Bbv<sup>÷</sup> wUDU n<sup>t</sup>Z c<sup>K</sup>wkZ Z<sup>t</sup>\_ R<sup>v</sup>bv hvq evsj v<sup>^</sup>tk i agv<sup>I</sup> e<sup>q</sup>l c<sup>R</sup>wiZi msL<sup>v</sup> 1048 (emvK  
 Ges Avj g 2015)|

**Rxe<sup>w</sup>PI<sup>^</sup> n<sup>t</sup>m Avgv<sup>^</sup> i Acvi bug<sup>^</sup> kv<sup>R</sup>vh<sup>0</sup>g<sup>t</sup>**

eZ<sup>0</sup>vtb c<sup>w</sup>\_exi c<sup>0</sup>q GK c<sup>A</sup>gusk c<sup>W</sup>Yx | Dw<sup>m</sup>c<sup>^</sup> c<sup>R</sup>wiZi vej<sup>β</sup>Bi S<sup>w</sup>k<sup>t</sup>Z it<sup>q</sup>tQ| eb<sup>^</sup>c<sup>W</sup>Yx  
 msi<sup>q</sup>Ywe<sup>^</sup> iv ej<sup>t</sup>Qb, vej<sup>β</sup> n<sup>t</sup>Z hvl qv c<sup>W</sup>Yx | Dw<sup>m</sup>c<sup>^</sup> c<sup>R</sup>wiZi msL<sup>v</sup> w<sup>^</sup> b w<sup>^</sup> bB evotQ| Z<sup>t</sup>e  
 w<sup>b</sup>weo msi<sup>q</sup>Y c<sup>W</sup>ym vej<sup>β</sup>c<sup>0</sup>q w<sup>K</sup>Oy c<sup>R</sup>wiZ<sup>t</sup>K w<sup>b</sup>w<sup>0</sup>y nI qv t<sup>\_</sup>tK i<sup>q</sup>lv K<sup>t</sup>i<sup>t</sup>Q| Rvc<sup>t</sup>bi Abj<sup>0</sup>Z  
 R<sup>w</sup>iZmsN Rxe<sup>w</sup>PI<sup>^</sup> m<sup>t</sup>q<sup>^</sup>jt<sup>^</sup> Av<sup>S</sup>R<sup>w</sup>ZK M<sup>t</sup>elK<sup>^</sup>j eb<sup>^</sup>c<sup>W</sup>Yx | Dw<sup>m</sup>c<sup>^</sup> i Dci<sup>^</sup> t<sup>^</sup>qv GKw<sup>U</sup>  
 ঋতিবেদনে উল্লেখ K<sup>t</sup>i<sup>t</sup>Qb, Df<sup>q</sup>Pi c<sup>W</sup>Yx<sup>^</sup> i g<sup>t</sup>a<sup>^</sup> 41 f<sup>v</sup>M Ges c<sup>w</sup>L<sup>t</sup> i g<sup>t</sup>a<sup>^</sup> 13 f<sup>v</sup>M c<sup>R</sup>wiZ  
 D<sup>P</sup> S<sup>w</sup>k<sup>t</sup>Z it<sup>q</sup>tQ| <sup>^</sup>w<sup>q</sup>Y | <sup>^</sup>w<sup>q</sup>Y ce<sup>0</sup>G<sup>w</sup>kq<sup>v</sup>q Rxe<sup>w</sup>PI<sup>^</sup> me<sup>t</sup>P<sup>t</sup>q u<sup>g</sup>uKi g<sup>t</sup>L etj Z<sup>v</sup>iv  
 R<sup>v</sup>b<sup>v</sup>b| AnaK RbmsL<sup>vi</sup> P<sup>r</sup>t<sup>c</sup> eb a<sup>y</sup>sm, Av<sup>Z</sup>wi<sup>3</sup> Avev<sup>^</sup>, e<sup>q</sup>l w<sup>b</sup>ab | <sup>^</sup>Re R<sup>j</sup>i w<sup>b</sup>i e<sup>^</sup>envi  
 evotQ GB A<sup>A</sup>t<sup>j</sup> | dtj b<sup>o</sup> n<sup>t</sup>Q eb<sup>^</sup>c<sup>W</sup>Yx<sup>^</sup> i Avev<sup>m</sup> | Avk<sup>q</sup><sup>^</sup>j | n<sup>v</sup>f<sup>w</sup><sup>0</sup>wek<sup>je</sup><sup>^</sup>v<sup>j</sup> t<sup>q</sup>i  
 Aa<sup>v</sup>cK | c<sup>w</sup>i<sup>t</sup>ek<sup>w</sup><sup>^</sup> G<sup>w</sup>I q<sup>w</sup><sup>0</sup>DBj mb etj b, <sup>0</sup>Rxe<sup>w</sup>PI<sup>^</sup> i t<sup>g</sup>i<sup>^</sup> U t<sup>f</sup>t<sup>0</sup> c<sup>t</sup>otQ| <sup>0</sup>w<sup>Z</sup>w<sup>b</sup>  
 etj b, <sup>0</sup>vej<sup>β</sup>Bi Rb<sup>^</sup> S<sup>w</sup>k<sup>c</sup>Y<sup>0</sup>c<sup>R</sup>wiZi msL<sup>v</sup> evotQ| Z<sup>t</sup>e c<sup>w</sup>i<sup>t</sup>ek<sup>w</sup><sup>^</sup> iv GK<sup>\_</sup>vl ej<sup>t</sup>Qb th,  
 msi<sup>q</sup>Y t<sup>R</sup>vi<sup>^</sup> vi ntj wecb<sup>ae</sup>u<sup>^</sup> c<sup>W</sup>YxB i<sup>q</sup>lv c<sup>v</sup>te| <sup>0</sup>c<sup>R</sup>wiZ i<sup>q</sup>lv K<sup>w</sup>gk<sup>b</sup> Ges eb<sup>^</sup>c<sup>W</sup>Yx msi<sup>q</sup>Y  
 ms<sup>^</sup>v AvBBD<sup>w</sup>mGbGi (IUCN) t<sup>P</sup>qvi g<sup>v</sup>b etj b, <sup>0</sup>eb<sup>^</sup>c<sup>W</sup>Yx msi<sup>q</sup>Y c<sup>0</sup>q<sup>v</sup> t<sup>R</sup>vi<sup>^</sup> vi Kivi ci  
 e<sup>u</sup> <sup>0</sup>x<sup>t</sup>c vej<sup>β</sup>c<sup>0</sup>q c<sup>w</sup>L | c<sup>W</sup>Yx c<sup>R</sup>wiZ i<sup>q</sup>lv t<sup>c</sup>t<sup>q</sup>tQ| eo ai<sup>t</sup>bi <sup>q</sup>w<sup>Z</sup> nI qvi Av<sup>t</sup>MB w<sup>Z</sup>w<sup>b</sup>  
 eb<sup>^</sup>c<sup>W</sup>Yx msi<sup>q</sup>Y<sup>t</sup>Yi D<sup>t</sup><sup>^</sup> w<sup>M</sup> evov<sup>t</sup>bvi Dci<sup>^</sup> t<sup>R</sup>vi w<sup>^</sup> t<sup>q</sup>tQb| d<sup>v</sup>t<sup>Y</sup>i c<sup>w</sup>i<sup>w</sup>i m m<sup>y</sup><sup>^</sup> wek<sup>je</sup><sup>^</sup>v<sup>j</sup> t<sup>q</sup>i  
 M<sup>t</sup>elK cj w<sup>j</sup> W<sup>w</sup>j etj b, <sup>0</sup>thfv<sup>te</sup> me<sup>w</sup>KOy P<sup>j</sup> t<sup>0</sup> t<sup>m</sup>fv<sup>te</sup> P<sup>j</sup> t<sup>Z</sup> <sup>\_</sup>vK<sup>t</sup>j f<sup>q</sup>en wech<sup>0</sup>  
 Aeaw<sup>i</sup> Z| <sup>0</sup>w<sup>j</sup> W<sup>w</sup>j i m<sup>t</sup>½ GKgZ n<sup>t</sup>q<sup>t</sup>Qb wewfba<sup>t</sup><sup>^</sup> k t<sup>\_</sup>tK Rvc<sup>t</sup>bi Rxe<sup>w</sup>PI<sup>^</sup> m<sup>t</sup>q<sup>^</sup>jt<sup>^</sup> th<sup>v</sup>M  
 t<sup>^</sup>qv M<sup>t</sup>elKiv| Z<sup>v</sup><sup>^</sup> i g<sup>t</sup>Z, 2020 m<sup>t</sup>jtj i g<sup>t</sup>a<sup>^</sup> Rxe<sup>w</sup>PI<sup>^</sup> c<sup>w</sup>i w<sup>^</sup> w<sup>Z</sup>i Dbw<sup>Z</sup> NUv<sup>t</sup>Z wek<sup>^</sup>  
 t<sup>b</sup>ZZ<sup>t</sup>K GK<sup>t</sup>h<sup>v</sup>t<sup>M</sup> KvR Ki<sup>t</sup>Z n<sup>t</sup>e|

w<sup>K</sup>S<sup>^</sup> <sup>^</sup>f<sup>w</sup>m<sup>^</sup> th, <sup>^</sup>z RbmsL<sup>v</sup> ep<sup>x</sup>, c<sup>w</sup>i<sup>t</sup>ek wech<sup>0</sup>K<sup>v</sup>i<sup>x</sup> Db<sup>q</sup>b K<sup>v</sup>h<sup>0</sup>g<sup>t</sup>, eb DRvo, c<sup>0</sup>Kw<sup>Z</sup>K  
 m<sup>q</sup>u<sup>t</sup><sup>^</sup> i AnaK AvniY, Avev<sup>m</sup><sup>^</sup>j a<sup>y</sup>sm, Av<sup>M</sup>mx c<sup>R</sup>wiZi AvMgb BZ<sup>w</sup><sup>^</sup> Avgv<sup>^</sup> i t<sup>^</sup>tki

Rxe%eipT" nwtm gl" fvgKv cvj b KtiqQ| Kwil kl" eipT" evsj vt`k mgxkvj x uQj | Kwil weAvbxt`i gtZ evsj vt`tk GK mgq c0q `k nvRvi f`vivBwU ev RvtZi avb we`gvb uQj | wecj RbmsL`vi Lv`i Pwn`v wguvtbvi Rb" D"P dj bKxj avb (Bwi, nvBweW BZ`w) Pvl Kitz wMtq tm me wfbae`v I RvtZi eipT"agx`avtbi RvZ mgn Avgiv AtbKuvB nwi tq tdjt uQ| D"P dj bKxj RvtZi avb Pvl Kitz wMtq ivmqubK mvi I KxUvukK c0qvMi KvitY Rj vfwgZ gvQmn wefbae`dvBtUvzvsKUb, RjvsKUbI nwi tq tdjt uQ| Abjfc, evsj vt`tk c0KwZK etbi cwigvY Kg ntj I etbi Rxe`eipT" Ab`vb` AtbK t`tki Zj brq c0Pth`fici | AvbgvmbK 600 e, cRvzi Avevm`j K. evRvi, PAMog I cveZ` PAMotgi AtbK ebvAj mgvstq 3-4 u cRvzi GKK ebrqtb ifcvsh Z nt"Q| 1871 mvtj me0g cveZ` PAMotgi ivgcvno-mxZvcvno Gj vKvq c0KwZK ebvAj mvdvB Kivvi ci tm, b Piv j vMvbtvi gva`tg eb e`vcbvi m`cvZ ntj I weMZ KtqK `kK c0KwZK ebvAj DRvti nvi D0MRbK nvti tetotQ| GtZ c0Ztek I cwi tetki eiveiB AcivYq vWZ ntqtQ| GQov eb DRvo, ebfvgi weKi e`envi, emvZ `vcbmn fvg `mj I Amr KgRZ`KgPvix`i thvMvRtmi c0KwZK ebvAj i gj`evb t`kxq e, cRvzi vej jB AtbKvstkb Zj vshZ nq| nvRvi eQti mvtmkb c0vqv Mto DVv ebvAj wetkl Kti kvj I cvnox ebvAj i Dv`c iviR thgb eipT" fici uQj, wK tZgvb cwi tetki fvi mgv` i vmn eb` c0YKtj i vbi v` Avevm`j wmvteI vetewPZ nZ| `fiv`th, Avgiv Avgv`i tmB gj`evb Rxe%eipT"i AvakvskB nwi tq tdjt uQ| A`veva Rxe%eipT" msi vY Avgv`i D`vM Avkvbjfc bq| BvZgta` eb DRvo I cwi tek `t`yi dtj Avgv`i t`tk 226 cRvzi Dv`c, 54 cRvzi gvQ, 41 cKvi cvLx, 40 cKvi mixmç I eu `b`cvqx c0Yi Av`Zi ugvi gtL etj Rvbn hvq| mVW i vYvtevY e`v Mto tZvj v bv ntj G msL`v fvel`tZ Avtiv epx`vte| fvel`Z Rjevq cwi eZBRWZ Zvcgvv epx` I mgj`0p uxZ ntj Dckj`xq Gj vKvi Rxe%eipT" wetkl Kti Kwil eipT"i ZvrcheYvte vWZM0`nte|

**evsj vt`tk wecbae, vectbe KviY I msi vY D`vM**

wecbae,0 wmvte Avgiv tm me e,tk wvYZ Kitz cwi bvbvea KvitY hv`i cwigvY, msL`v, we`vzi `vb cFvZ mxvZ ntq AvmtQ, ev tKvb vbw`0 Gj vKvi gta` e, vj mxgve` ntq tMtQ| Dnv`i esk epx`I t`vc cvt"Q A\_ev esk we`vi LpB nwm tctqtQ| mgtqi vbi tL c0c`Zvi cwigvY, t`Lv AwfAZv, c0xY e`v3t`i AwfAZv, ebR m`u` AvniYKvix`i AwfAZv me wgvj tq vej j, gnwecbae wecbaeI ugKxi m`j`xb e, I Ab`vb` Dv`c cRvz wmvte fvm Kiv hvq| wetkji wec3/4bK, vej j A\_ev vej j c0q Dv`c mgtni Z` m`v Z cy`K nt"Q tiW Wlv eB (Red Data Book)| 1978 mvtj WWF Gi A`vKtj` IUCN KZR c0g GB cy`Kv c0KwZ nq| c0g chq GB cy`K cv`exi wefbaeAA`tj i 250 u cRvzi tKm wv`mn Zv`i bvg (Family, Genus and Species), eZvB Ae`vbk gvb we`vZ,

cmi cmiK Ae`vb, wej ß ev wec`i KviY, MnxZ msi qY gj K e`e`v, c`weZ msi qY gj K e`e`v, evtqvj Rx I e`envi Dc`thvMZv, Pvlver` c`xwZ, eY`v I Z`\_` w`b`Kv` I qv nq| wej ß, wej ßc`q ev wec`4bK c`RvZi Ae`wbK gvb ev ch`q (Status) c`Kv`ki Rb` Red Data Book G KZ`\_`tj v tk`x ev K`vUvMwi e`envi Kiv nq| Gme K`vUvMwi wej ß, c`KvZKf`te wej ß, gnvwecb`e wecb`e msKUvcbe`dvi v (Flora) I dbv (Fauna) Df`qi Rb`B e`e`uZ n`q`\_`v`K|

evsj v`tk we`g`vb bvbwea c`KvZK I gvbem`p Kvi`Y A`bK Dw`c, c`ny Z`\_`v Rxe`%e`P`I` AvR wecb`eI` ug`Ki m`q`\_`xb| GK mgq mnt`R cvl`qv thZ GiKg A`bK e`q`i`K Zvi Aw` Avev`-`tj Avi L`R cvl`qv hv`"Qbv| A`bK Rv`Zi e`q`i w`b`tkl n`q` tM`Q| evsj v`tk wecb`e n`l`qv KviY mg`ni g`a` wecb`e`cwi`tek, Avev`-`j a`ysm I w`veP`ti eb DR`vo, Drcv`-`tbi Aw`Zi`<sup>3</sup> I Acwi`Kw` Z m`u` Avni`Y, ci`-`ui w`b`f`pkj Dw`c I c`ny esk` n`m, Acwi`Kw` Z ebr`qb, we`kl K`ti ebr`qb we`k`x AvM`mx c`RvZi Avia`K` c`vb Ges m`p`z I mgw`SZ ব্যবস্থাপনার অভাবে উল্লেখ্য KviY etj g`b Kiv nq|

wef`beZ`\_` Dcv`E we`kl`i`b`-`L`v` hvq evsj v`tk eZ`g`v`b 486 w` Dw`c c`RvZ`i`K ug`Kxi m`q`\_`xb etj we`te`PZ Kiv n`q`i`Q| Aek` 1990 m`v`j me`g` 20 w` Dw`c c`RvZ (nK Ges e`wbK 1990) Ges 1991 m`v`j 25w` Dw`c c`RvZ (Lvb 1991) wecb`e`i`j we`te`PZ nq| 2001 m`v`j (Lvb Ges Ab`vb` 2001) 106 w` Dw`c c`RvZ I 2013 m`v`j (Aviv Ges Ab`vb` 2013) 120 w` Dw`c c`RvZ`i`K ug`Kxi m`q`\_`xb we`te`Pbv`q` j`v`j Z`v`j K`v`f`<sup>3</sup> K`ti`b| Aek` (Encyclopedia of Flora and Fauna of Bangladesh) (2007-২০০৯) এবং ইরফান উল্লাহ (2011) evsj v`tk 486 w` D`b`id`i` pr`j`at`ike` h`m`k`i`r` s`m`m`u`y`i`n` উল্লেখ K`ti`b`|

Dw`c M`c	t`i`Kw`RZ c`RvZi` m`L`v`	gnvwecb`e	wecb`e	msKUvcbe`	ug`Kxi m`q`_`xb
dv`Y`e`M`x`q`	295	0	0	36	36
bM`e`x`R`x`	07	0	1	0	1
Ave`Z`e`x`R`x` GK` e`x`R`c`I`x`	2,623	8	80	179	267
Ave`Z`e`x`R`x` w`b`e`x`R`c`I`x`	988	22	46	114	182
<b>t`g`w`</b>	<b>3,413</b>	<b>30</b>	<b>127</b>	<b>329</b>	<b>486</b>

**wecb`e`Dw`c ev e`q`i` w`Kf`te msi qY Kiv hvq`**

Rxe`%e`P`I` mb` Ab`hv`qx c`Z`K`w` t`k` Zvi w`b`R`^`Dw`c`/c`ny msi qY`i` h`\_`v`\_` e`e`v` t`b`e`| eZ`g`v`b evsj v`tk 39 w` msi`v`q`Z G`j`v`Kv (Protected Area) gva`tg` Avgv`-`i` Dw`c`/c`ny msi qY`i`bi D`f`i`v`M` t`b`qv` n`q`i`Q|



ɹUv (*Firmiana colorata*), Kɔ̃vix (*Gardenia coronaria*), evʃijv, SvDqv  
 (*Holigarna caustica*), †Zj mj (*Hopea odorata*), Pjg Miv, Wjg Mwi  
 (*Hydnocarpus kurzii*), †Kwj -K`g, fB-K`g (*Hymenodictyon orixensis*), ɪm`v  
 Rvi`j, ɪWj v Rvi`j (*Lagerstroemia parviflora*), `p̃ev evUbv, KvŠv evUbv (*Lithocarpus  
 acuminata*), eo evUbv (*Lithocarpus elegans*), Kwij evUbv, Kvjv evUbv  
 (*Lithocarpus fenestratus*), ɹBRv evUbv (*Lithocarpus pachyphylla*), i³b  
 (*Lophopetalum fimbriatum*), eʃv, (*Macaranga denticulata*), gúqv, gúDqv  
 (*Madhuca indica*), Wvj Pṽúv, Av`v Pṽúv (*Magnolia pterocarpa*), Kvʃgj v, ɪm` †x  
 (*Mallotus philippensis*), Dwi Avg, R½wj Avg (*Mangifera sylvatica*), Pṽúv, Pṽúvdj  
 (*Michelia champaca*), Uvwj, `ɹ, j vwj (*Palaquium polyanthum*), ɹU ɹU`v, ɪbDi,  
 jʃ -eṽ (*Protium serratum*), KbK Pṽúv, gym, gymMÚv (*Pterospermum  
 acerifolium*), ei Avmvi, jvɔv-Avmvi (*Pterospermum semisagittatum*), eɣl  
 bwi †Kj, Kv ev`vg, bwi †Kwj (*Pterygota alata*), KbK, gb-Pṽúv, tevɔK (*Schima  
 wallichii*), Kmg, Rqɔv (*Schleichera oleosa*), dvBk`v-D`vj, D`vj (*Sterculia  
 villosa*), `vi giv (*Stereospermum personatum*), cviæj, Kvɔ †mvɔj -  
 (*Stereospermum suaveolens*), Xṽk-Rvɔ (*Syzygium firmum*), eʃniv  
 (*Terminalia bellirica*), nwi Zṽk (*Terminalia chebula*), Pʃj, g`vBṽk`vU  
 (*Tetrameles nudiflora*), Zb, mj æRʃe`, i ½ (*Toona ciliata*), Avi`j, nwi bv, ɹ`v  
 (*Vitex glabrata*), ɹ`v, nwi bv, Avkj (*Vitex peduncularis*), evRbv, (*Zanthoxylum  
 rhetsa*) cʃvZ eʃɹi Avi tevʃi Uvɔ ev exR Drcv`b ÷vU mRb Kiv nʃqʃQ | evsj vʃ` †ki AʃbK  
 i vʃZ Gj vKvi Zj vq PÆMǫg vekʃe`vj q K`ṽúvm Rxe%vPʃĪ` AʃbK tekx mgx | Rxe%vPʃĪ`  
 ṽkʃv, MʃelYv, cṽiʃek Dbqɔ Ges cūZʃek I chʃb m̃úvviʃY veʃkI fvgKv ivLʃZ cvʃi |  
 †` †ki dʃi ÷ †RʃbŨK ɪiʃm̃ msi ʃʃY AviY`K dvDʃÚkb I dʃi ɪ÷ʳ Bbw÷vUDʃUi G Dʃ`ṽM  
 †` †ki ɪbR`^cRṽZ mgʃni iʃvq GKvJ gvBj djK | Zʃe G hṽvq Avgvʃ`iʃK Avʃiv  
 AʃbK` † †ʃZ nʃe, ZʃeB evsj vʃ` kʃK Avgiv GKvJ Rxe%vPʃĪ` cʃPhq †`k ɪnmʃe vek  
 `ievʃi nwiRi KiʃZ cvie |

# fÆvi tivM I Zvi cÖZKvi

## W. tK. Gg. LvTj K¾/vgvb

DaYZb %eÁwbK KgRZP (Dw<sup>mc</sup> tivMZË)

gmj v Mtel Yv tK><sup>?</sup>; weGAvi AvB

wkeMÄ, e<sub>3</sub>ov, evsj vt`k|

avb I Mtgi ci fÆv evsj vt`k ZZxq I D"P dj bkxj `vbn RvZxq dmj | wefkji wewfboet`tk Bnv eümea Lv` ^ZixfZ e`eüZ ntq \_vtK Ges tKvb tKvb t`tk Bnv cävbn Lv` | wKŠ' evsj vt`k mvavibZt ci, gjMx I grm` Lv` wnmvte e`eüZ ntq \_vtK| avb I Mtgi Zj bvq GtZ cÖq 11% Awgl RvZxq Dcv`vb itqfQ| wewfmemgm`vi Kviþb evsj vt`k fÆvi dj b AþbK Kg| Zbþa` tivM Ab`Zg| MtelKt` i gtZ evsj vt`k fÆvi tgvU 28 wU tivM mbv<sup>3</sup> Kiv ntqfQ, hvi 19 wU QÎvKRwbZ, 1 wU e`KtUwiqvRwbZ, 3 wU fvBivmRwbZ Ges 5 wU KwGRwbZ tivM| fÆvi tivM wqšfY ivLtZ cviþj fÆvi Drcv`b AþbKvstK ep× Kiv mæe| fÆvi KtqKwU cävbn QÎvK RwbZ tivM I Zvt` i `gb e`e`v mæúfK@btgæbYv Kiv nj -

1| tivMmi bug t ami exR cPv, gj cPv I Pviv Sj mvþbv tivM|

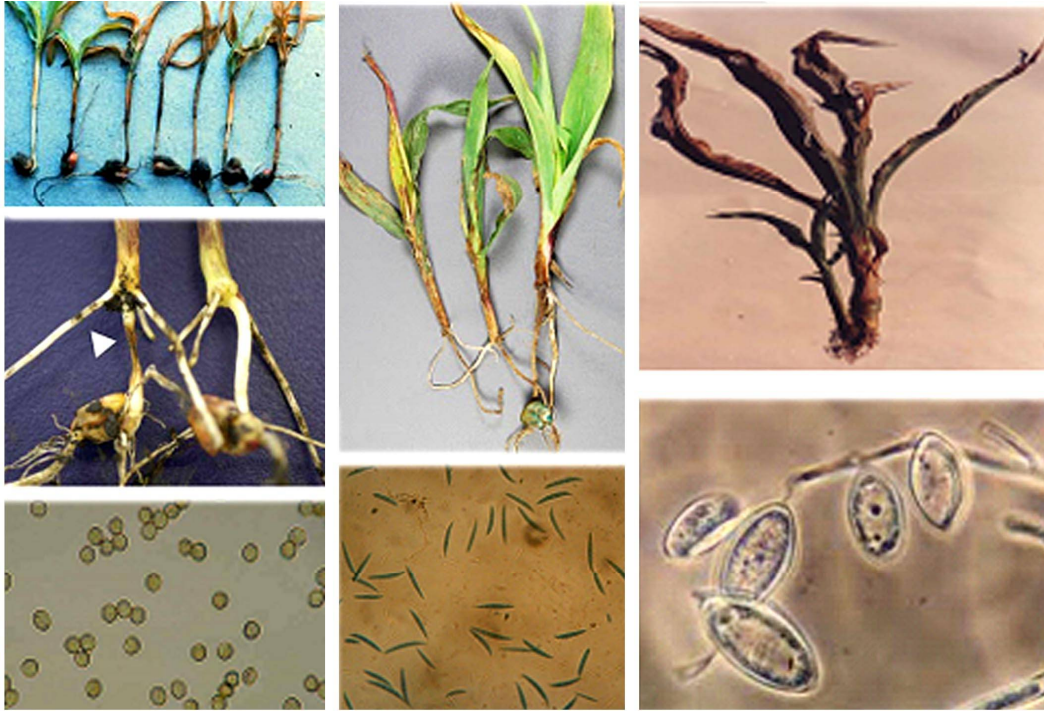
tivMmi KviYt *ivBtRvKtUmbqv (Rhizoctonia sp.)*, *wDRwiqv (Fusarium sp.)*,  
*wcU\_qvg (Pythium sp.)* BZ`w` QÎvK Øviv G tivM ntq \_vtK|

tivMmi we`wi t exR I gwUli gra`tg G tivMwU Oovq| gwUli Av`Zv tekx ntj QÎvtKi Avµgtþbi gvÎv tefo hvq|

tivMmi j¶Yt

- RwgfZ fÆv MvtQi msL`v Ktg hvl qv|
- ecb Kiv exfR cPb aiv|
- Pviv MRvtþvi cþeB exfRi Askj gti hvl qv|
- Pviv Sj tm hvl qv|
- tMvov I wkKo cPb aiv|
- wkKo ev`vgx t`tk Kvþj v is aviY Kti |
- MRvtþbv Pviv Xtj cfo I gti hvq|





রাইজোকটেনিয়া

ফিউজারিয়াম

পিথিয়াম

ৱাৰ্ণি: ফাৰি গ্জ চপ্ৰ I প্ৰিৱ স্জ ম্ভব্ৰ তিৱ্ৰমি জ ৭৭Y Ges তিৱM ম্ভৱKৱিx QটvK

### তিৱ্ৰমি চাৰ্জকিত

- ম্য', মেজ I তিৱMগ্ৰ exR ecb KiতZ ন্ৰে|
- Kৱ্ৰেঐৱRg Mট্ৰি QটvKৱকK (thgb-AতUৱ÷b) A\_ev Kৱ্ৰেঐ b + ৱ\_িৱ Mট্ৰি QটvKৱকK (thgb-ত্ৰঐFv- 200 ভৰ্গDৱ) চাৰ্জ ত্ৰKৱR extR 2.5 Mগ্ৰ ন্ৰ্ৰি ৱ্গ্ৰক্ৰত্ৰ ত্ৰৱab KiতZ ন্ৰে|
- dmj DWi ci cLi তিষ্ট^a (gৱP®Gৱc) গ্ৰ্ৰম) Rৱ্গ PৱI K্ৰি ত্ৰত্ৰj iৱLতZ ন্ৰে|
- Dঐgiত্ৰ Rৱ্গ PৱI I cৱi ৱ্গZ iত্ৰ exR ecb KiতZ ন্ৰে, A\_ঐ গ্ৰৱLতZ AৱaK im iৱLৱ হ্ৰ্ৰে ৱ|
- তিৱM ত^Lৱ ৱ^tj Kৱ্ৰেঐৱRg Mট্ৰি QটvKৱকK (thgb-AতUৱ÷b) চাৰ্জ ৱj Uৱি cৱbতZ 2 Mগ্ৰ ন্ৰ্ৰি ৱ্গ্ৰক্ৰত্ৰ 7 ৱ^b ci ci 2-3 eৱি Pৱিৱি ত্ৰMৱoৱ ত^cOKiতZ ন্ৰে|

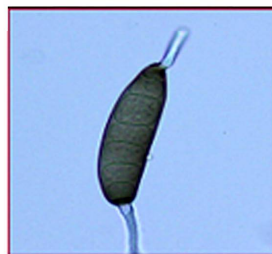
### 2| তিৱ্ৰমি ৱ্গ্ৰt cৱZৱ S্জ ম্ভব্ৰ (Leaf blight) তিৱM

তিৱ্ৰমি KৱিYt ত্ৰj ৱ্গ্ৰt\_ৱ্ৰ্ৰcৱi ৱ্গ্ৰ Uৱি ৱ্ৰKৱ (Helminthosporium turcicum Syn. Bipolaris turcicum) ৱ্গK QটvK ঐৱি G তিৱM ন্ৰ্ৰ ৱ^tK|

**তিত্ৰমি বে-বি ত** G তিত্ৰমি RxebyMvQI AvµvŠ-Astk AþK w`b tetP \_vþK | Rxebyj exRKYv  
 ev KvbWqv evZvþmi mnvþh` AþK `þ chŠ-my` MvþQ QovþZ cvþi | evZvþmi  
 Av`Zv tekx ntj Ges 18-27 wWwM0tmt ZvcgvT̂vq G তিত্ৰমি Avµgb teto  
 hvq |

**তিত্ৰমি j ৭Yt**

- MvþQi bxþPi w`þKi cvZvq j þy ev wWþyKvi `vM t` Lv hvI qv |
- ctþi AvµvŠ-`vM, þjv AvKvþi eo nI qv |
- cieZxþZ MvþQi Dctþi i Astk we-þi jvf Kiv |
- `vM, þjv wKiv eivei evotþZ \_vKv Ges ami eY@aviY Kiv |
- তিত্ৰমি c0Kvc tekx ntj MvþQi cvZv AvMvg i`wKtq hvI qv | MvQ gviv hvI qv hv AþK  
 mgq Livq AvµvŠ-ntqtQ etj gþb nI qv |



বাইপোলারিস

**ৱT:** fÆvi cvZv Sj mvþbv তিত্ৰমি j ৭Y I QIvK

### †iv†Mi cÖZKvit

- †ivM cÖZ†ivax RvZ Pvl Ki†Z n†e|
- dmj msMöni ci cvZv, KvÛ BZ`w` c†o tdj †Z n†e|
- Kv†eÖv†Rg Mötci Q†vKbvK (†hgb-A†Uw÷b) A\_ev Kv†eÖ b + w\_ivg Mötci Q†vKbvK (†hgb-tcÖFv· 200 ডল্লDwC) cÖZ †KwR ex†R 2.5 M†g nv†i w†g††q †kvab Ki†Z n†e|
- cwi "QbrPvl vev` Ges cwi w†gZ mvi I tmP cÖvb Ki†Z n†e|
- †ivM †`Lv w`†j Av†vš-dm†j tcÖ†Kv†v†Rvj Mötci Q†vKbvK (†hgb-wJè 250 Bm) 1 w†j Uvi cwb†Z 0.5 w†g†j A\_ev Kv†eÖv†Rg Mötci Q†vKbvK (†hgb-A†Uw÷b) 1 w†j Uvi cwb†Z 2 M†g nv†i w†g††q 10 w`b ci ci 3 evi †`cÖKi†Z n†e|

### 3| †iv†Mi bugt WvDwb w†g† w†D (Downy mildew) †ivM

†iv†Mi KviYt *†c†iv†bv†`†iv†`úviv mi MvB (Peronosclerospora sorghi)* b†gK Q†vK Övi v G †ivM n†q \_v†K|

†iv†Mi ve`vi t g†wJ, †cvl K I Av†vš-exR Övi v Qovq|

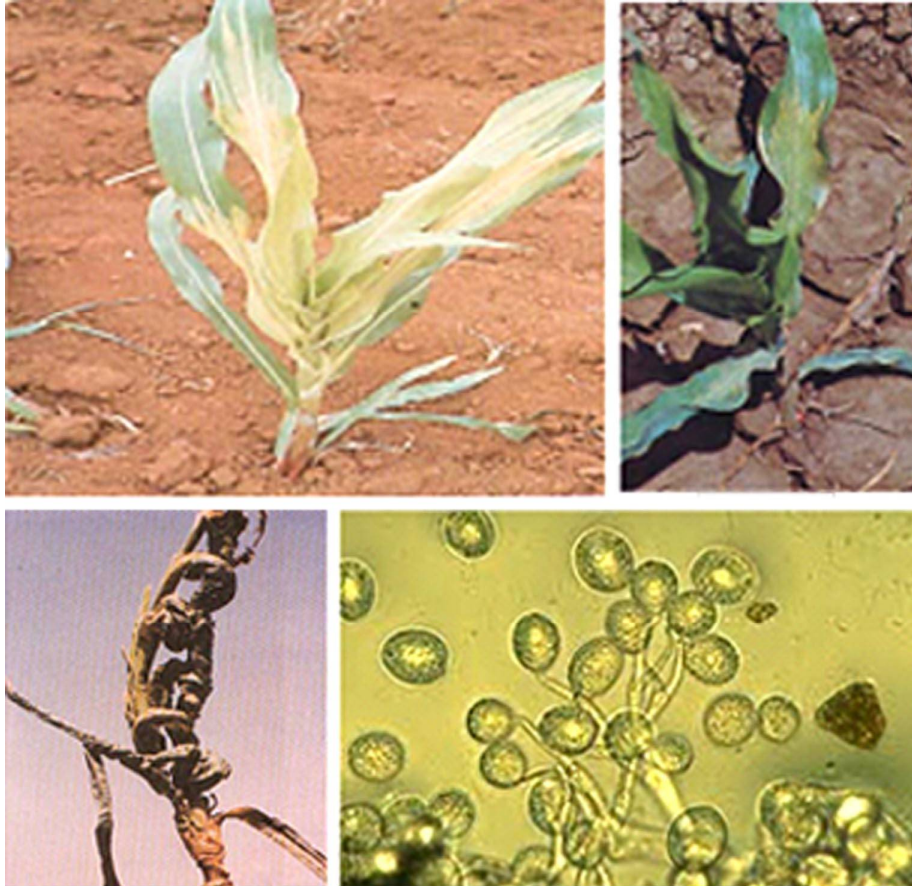
### †iv†Mi j ¶Y t

- Av†vš-MvQ Le†KwZ, `e† I weeY†nl qv|
- Av†vš-cvZvq j ††j ††j mv`v†U `vM cov|
- c†i Mv†Qi cvZv wKQlv nj †† e†Y† n†q hv† qv|
- Av†vš-cvZvi b††P mv`v Q†vK Ges Q†v†Ki exRKbv Lw†j †Pv†LB †`Lv hv† qv|
- c†Y`eq` MvQ Av†vš-n†j t†g†v†i AvKvi †QvU n† qv A\_ev A†bK m†g† t†g†v† c††ivc††i bv n† qv|

### †iv†Mi cÖZKvit

- †ivM†g† m†y`exR ecb Ki†Z n†e|
- ††g†v††j w`j + g`vb†Kv†Re Mötci Q†vKbvK (†hgb-wi ††v†w†g††† Mv†) cÖZ †KwR ex†R 2.5 M†g nv†i w†g††q exR †kvab Ki†Z n†e|
- Av†vš-MvQ †`Lv gv† Z†j c†o tdj †Z n†e|
- R†g† †\_†K AwZwi<sup>3</sup> cwb w†v†k†bi e`e`v Ki†Z n†e|

- *Avμνš-Mμ†Q ‡gUvtj w j + g'vbtKv†Re M†ci Q†vKbvkK (‡hgb-wi ‡Wwggj ‡Mvì ) c†Z wj Uvi cwb†Z 2 M†g nvti wgvk†q 7-10 w`b ci ci 2-3 evi ‡c†Ki†Z n†e|*



পেরোনোস্পোরোস্পোরা

w††: f†Evi WvDwb wggj wWD ‡iv†Mi j ¶¶Y I Q†vK

- 4| *‡iv†Mi bvg†* cvZvq `vM ev Kvi fj wvi qv wj d `úU (*Curvularia leaf spot*) ‡ivM
- ‡iv†Mi KviYt* Kvi fj wvi qv j bvUv I Kvi fj wvi qv g'vKDj 'vY (*Curvularia lunata* and *C. maculans*) bvgK Q†vK Øviv G ‡ivM n†q \_v†K|
- ‡iv†Mi ve`vit* ‡enk Av`Zv I Zvcgv†vq Avμgb ev†o| RxevbygvU†Z Ges Avμνš-Mμ†Q \_v†K, evZvm I cwb†i gra`†g Qovq|





ԿՈՒՆԻՍՏԱՆԻ ԲՈՒՄԻՆԱԿԱՆ ԳՐԱԿԱՆՈՒՄԻ ԵՎ ԳՐԱԿԱՆՈՒՄԻ ԵՎ ԳՐԱԿԱՆՈՒՄԻ ԵՎ ԳՐԱԿԱՆՈՒՄԻ

### ԳՐԱԿԱՆՈՒՄԻ ԵՎ ԳՐԱԿԱՆՈՒՄԻ

- ԳՐԱԿԱՆՈՒՄԻ ԵՎ ԳՐԱԿԱՆՈՒՄԻ ԵՎ ԳՐԱԿԱՆՈՒՄԻ ԵՎ ԳՐԱԿԱՆՈՒՄԻ
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- ԳՐԱԿԱՆՈՒՄԻ ԵՎ ԳՐԱԿԱՆՈՒՄԻ ԵՎ ԳՐԱԿԱՆՈՒՄԻ ԵՎ ԳՐԱԿԱՆՈՒՄԻ
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- ԳՐԱԿԱՆՈՒՄԻ ԵՎ ԳՐԱԿԱՆՈՒՄԻ ԵՎ ԳՐԱԿԱՆՈՒՄԻ ԵՎ ԳՐԱԿԱՆՈՒՄԻ

5| **ঝিঝি ঝগ** কুঔ চপ (Stalk rot) তিঝ

**ঝিঝি কুঔ** ঝঔঔঔঔ ঔগ (*Fusarium*), ঝঔঔঔঔ (*Diplodia*), ঝঔঔঔ (*Pythium*),  
ঔঔঔঔ (Erwinia), ঝঔঔঔঔঔ (*Pseudomonas*) ঔঔঔ ঔঔঔ ঔঔঔ  
ঔঔঔ ঔঔঔ |

**ঝিঝি ঝঔ** ঔঔ ঔঔঔঔ ঔ ঔঔ ঔঔঔ ঔঔঔ | ঔঔঔ ঔঔঔঔঔঔঔ ঔঔঔ ঔঔঔ |  
চঔঔঔ ঔঔঔ ঔঔ ঔঔ ঔঔঔ ঔঔঔ কুঔ চপ তিঝ ঔঔঔ ঔঔঔ | ঔঔঔ ঔঔঔ ঔঔঔ ঔঔঔ  
ঔঔঔ ঔঔঔ |

**ঝিঝি ঔঔ**

- কুঔঔ ঔঔঔ ঔঔ ঔঔ ঔঔ ঔঔঔ ঔঔঔ
- ঔঔঔ ঔঔঔ ঔঔঔ ঔঔঔ ঔঔঔ ঔঔঔ ঔঔঔ
- ঔঔঔঔ ঔঔঔ কুঔ চপ ঔঔঔ ঔঔঔ ঔঔঔ ঔঔঔ



চিঔ: ঔঔঔ ঔঔঔঔঔঔ ঔঔ ঔঔ ঔঔঔ



চিঔ: ঔঔঔ ঔঔঔঔঔ ঔঔ ঔঔ ঔঔঔ



চিঔ: ঔঔঔ ঔঔঔঔঔঔ ঔঔ ঔঔ ঔঔঔ



চিঔ: ঔঔঔ ঔঔঔঔঔঔ ঔঔ ঔঔ ঔঔঔ

### tiŕMi cŕZKvit

- my' l mej exR ecb KiŕZ nŕe |
- dmj KvUvi ci AveRŕv cŕpŕq ŕdj ŕZ nŕe |
- km' chŕq Abŕib KiŕZ nŕe |
- KvŕeŕvRg Mŕci QŕvKbvkK (ŕhgb-AŕUw÷b) A\_ev Kvŕeŕ b + w\_ivg Mŕci QŕvKbvkK (ŕhgb-tcŕŕv 200 WŕeŕDŕc) cŕZ ŕKŕR exŕR 2.5 Mŕg nŕŕi wgvkŕq ŕkrab KiŕZ nŕe |
- mŕg gvŕvq mvi e'envi KiŕZ nŕe, wŕŕkl Kŕi bvBŕUŕŕb l cUvk mvi cwi wgz gvŕvq cŕŕqM KiŕZ nŕe |
- wKko ev KvŐ AvŕgbKvix ŕcvKv `gb KiŕZ nŕe |
- WvBŕdŕbvŕKvŕRj Mŕci QŕvKbvkK (ŕhgb-ŕ`vi 250 Bŕm) cŕZ wj Uvi cŕmbŕZ 0.5 wgvj nŕŕi wgvkŕq 7-10 w`b ci ci 2-3 evi ŕ`ŕa KiŕZ nŕe |

### 6 | tiŕMi bugt ŕgvPv l `vŕv cPv (Ear rot/Cob and grain rot) tiŕM

tiŕMi KviYt *Diplodia* Sp), *Fusarium* Sp), *Gibberella* Sp), *Penicillium* Sp), *Aspergillus* Sp) BZ`w` QŕvK Ővi v G tiŕM nŕq \_ŕŕK |

tiŕMi wŕ`vit MŕŕQ ŕgvPv Avmv ŕ\_ŕK cvKv chŕe-ŕŕŕcvZ tekx nŕj G tiŕMi Avŕgb tekx nq | ŕcvKv ev cŕmLi Avŕgbŕ ev KvŐ cPv tiŕM MŕQ gvŕŕZ cŕo ŕMŕj G tiŕM e'vcKZŕ jŕŕf Kŕi | G tiŕMi RŕevbŕexR A\_ev Avŕvŕŕ-MŕŕQi cwi Z`<sup>3</sup> Aŕŕk ŕŕŕP \_ŕŕK | GKB RŕgŕZ evi evi fŕŕvi Pvl Kiŕj G tiŕM `Z wŕ`ŕi jŕŕf Kŕi |

### tiŕMi jŕŕYt

- cŕŕwK Ae`ŕq Avŕvŕŕ-nŕj cŕiv ŕgvPv l `vŕv cŕP hvl qv |
- Avŕvŕŕ-ŕgvPvi ŕLŕmv l `vŕv wŕeYŕŕŕq hvl qv |
- mŕfŕwŕKŕŕŕe `vŕv cŕŕ bv n l qv, `vŕv KPŕK A\_ev ŕdŕU hvl qv |
- AŕŕbK mgq ŕgvPŕZ wŕwŕbŕe`vŕvi gvŕS ev Dcŕi QŕvŕKi Dcŕw`ŕZ Lwvj ŕPŕŕLB ŕ`Lv hvl qv |

### tiŕMi cŕZKvit

- `vŕv ev Nvm RvZŕq km' ev `w`ŕq km' chŕq Aej ŕb KiŕZ nŕe |

- MvṭQi cwi Z<sup>3</sup> Ask cyotq tdj ṭZ nṭe|
- KṛṭeṀvRg Mṭci QĪvKbvkK (ṭhgb-AṭUw÷b) A<sub>ev</sub> KṛṭeṀ b + w<sub>ivg</sub> Mṭci QĪvKbvkK (ṭhgb-tcṀF<sup>v</sup> 200 ডব্লিউমি) cṀZ ṭKwR extR 2.5 Mṅg nṛṭi wḡkṭq ṭkvab KiṭZ nṭe|
- ṭcvKv I cvLxi Avμgb nṭZ `vbv iṅṭv KiṭZ nṭe|
- cwi c<sup>o</sup> nI qvi mvṭ\_ mvṭ\_ ṭ`ix bv Kṭi ṭḡvPv msMṀh KiṭZ nṭe|
- ṭcṀncṭKvbṭRvj Mṭci QĪvKbvkK (ṭhgb-wṀë 250 Bṛm) cṀZ wj Uvi cwbṭZ 0.5 wḡwṭ nṛṭi wḡkṭq MvṭQ 7-10 w`b ci ci 2-3 evi ṭ`cṀKiṭZ nṭe|



চিত্র: ভূটার ডিপলোডিয়া দানা পচা রোগের লক্ষণ



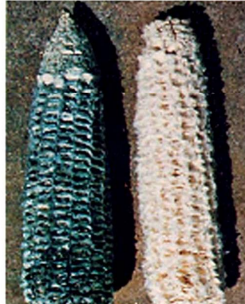
চিত্র: ভূটার ফিউজারিয়াম দানা পচা রোগের লক্ষণ



চিত্র: ভূটার জিবেরেলা দানা পচা রোগের লক্ষণ



চিত্র: ভূটার এ্যাস্পারজিলাস দানা পচা রোগের লক্ষণ



চিত্র: ভূটার পেনিসিলিয়াম দানা পচা রোগের লক্ষণ



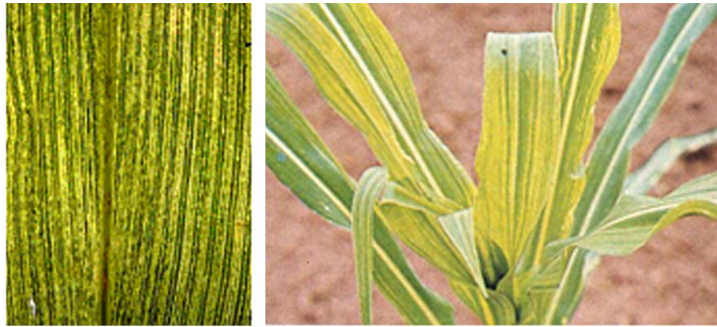
7| **ঝিঝি ঝগ্ ঝঝি**  $c_vZvi$   $f_vBivm$  (Virus disease)  $tivM$

**ঝিঝি ঝিঝি**  $f_vBivm$   $\theta viv$   $G$   $tivM$   $n\dot{t}q$   $_v\dot{t}K$ |

**ঝিঝি  $ve$   $\dot{v}it$**   $f_vBivm$   $tivM$   $tcvKv$  ( $KY$   $\theta viv$   $ncvi$ ),  $mi$   $Mg$   $I$   $Rsj$   $x$   $Nvm$   $\theta viv$   $Qovq$ |

**ঝিঝি  $j$   $\eta Yt$**

- $Mv\dot{t}Qi$   $c_vZvq$   $j$   $\theta viv$   $\theta viv$   $ei$   $vei$   $mi$ “  $ev$   $Pl$   $ov$   $nj$   $\dot{y}$   $\dot{v}M$   $t$   $Lv$   $hvl$   $qv$ |
- $Av\mu v\dot{s}$ - $MvQ$   $Le\theta KivZi$   $nI$   $qv$ ,  $Mv\dot{t}Q$   $Lv$ “  $Drcv$   $b$   $e$ “ $enZ$   $nI$   $qv$ |
- $tgvPv$   $tQvU$   $AvKv\dot{t}i$   $i$   $nI$   $qv$   $Ges$   $dj$   $b$   $nvm$   $cvl$   $qv$ |



চিত্র: ভূটার ঝিঝি ঝিঝি রোগের লক্ষণ



চিত্র: ভূটার বিন মোজাইক ঝিঝি রোগের লক্ষণ



চিত্র: ভূটার মটল ঝিঝি রোগের লক্ষণ

**ঝিঝি  $c\dot{t}ZKvit$**

- $Av\mu v\dot{s}$ - $MvQ$   $Dv\dot{t}q$   $c\dot{t}o$   $t\dot{d}j$   $\dot{t}Z$   $n\dot{t}e$ |
- $Rvq$   $AvMvQv$   $gv\beta$   $i$   $vL\dot{t}Z$   $n\dot{t}e$ |
- $\dot{v}bv$   $ev$   $Nvm$   $RvZxq$   $km$ “  $ev$ “  $w$   $\dot{t}q$   $km$ “  $ch\dot{t}q$   $Aej$   $\theta$   $p$   $Ki\dot{t}Z$   $n\dot{t}e$ |
- $কর্ণ$   $\theta viv$   $ncvi$   $G$   $tivM$   $Qovq$ |  $ZvB$   $G$   $tcvKv$   $\dot{g}\dot{t}bi$   $BvgWv\dot{t}KvvcW$   $M\dot{t}ci$   $KxUvbkK$  ( $\dot{t}hgb$ - $A$ “ $Wgvqv$ / $BvgUvd$ )  $c\dot{t}Z$   $wj$   $Uvi$   $cwb\dot{t}Z$   $0.5$   $wgvj$   $A$ “ $ev$   $g$ “ $vj$   $w$ “ $qb$   $50$   $Bvm$   $c\dot{t}Z$   $wj$   $Uvi$   $cwb\dot{t}Z$   $1.5$   $wgvj$   $n\dot{v}\dot{t}i$   $wgvk\dot{t}q$   $7$   $w$ “  $b$   $ci$   $ci$   $2-3$   $evi$   $t$ “ $\dot{u}0Ki\dot{t}Z$   $n\dot{t}e$ |

8| ঠিঠMi bvg ্গ cPv (Storage disease) ti vM

ঠিঠMi KviYt A`imcvi wRj im (Aspergillus sp.), tcubimij qvg (Penicillium sp.) Ges  
ivBtRvcim (Rhizopus sp.) bvgK QIvK Øvi v G ti vM ntq \_vK|

ঠিঠMi ve`vit extR Av`Zv tekx \_vKtj `v bv cPv ti vM tekx nq|

ঠিঠMi j qYt

- ঠgvPv ev `bv fvj fvte bv i`Ktq ্গ `vtg ivLtj `bv cP hvl qv I weeY`nl qv, `MØ  
tei nl qv I Asktiv`Mg qvgZv Ktg hvl qv|
- `bvq vel %Zix nq hv gvb| I ci i Rb` qvZKi nl qv|
- ্গ `vtg cPb tek ntb QIvKtKi Dcw`wZ Lwvj tPvL t`Lv hvl qv|



চিত্র: ভূট্টার ফিউজারিয়াম গুদাম পচা রোগের লক্ষণ



চিত্র: ভূট্টার এয়াস্পারজিলাস গুদাম পচা রোগের লক্ষণ



চিত্র: ভূট্টার ডেসলেেরা গুদাম পচা রোগের লক্ষণ

ঠিঠMi cZKvit

- fÆv cvKtj tgvPv ZvovZvmo msMØh Ki tZ nte |
- `bv Qovtbvi mgq thb tft½ bv hvq tmw` tK tLqvj ivL tZ nte |
- `bv i`Ktq 12% Av`Zvq ্গ `vgrvZ Ki tZ nte |
- ্গ `vtg tcvKvi Avµgb tiva Ki tZ nte |
- ্গ `vtg ZvcgvIv thb bv evto tm Rb` evqPj vPtj i e`e`v Ki tZ nte |
- `bvq Rj xq Ask Kg ivLvi Rb` elKvtj gv tS gv tS ti v` i Kv tZ nte |
- KvteØvMrg MØci QIvKbvkK (thgb-AtUw÷b) A\_ev KvteØ b + w\_ivg MØci  
QIvKbvkK (thgb-tcØFv· 200 ভল্লিDmc) cØZ tKwR extR 2.5 MØg nv ti wgvk tq  
tkrab Ki tZ nte |

# †R†bU† i Kvm I möcWMB

## †gvvŒ vmi K numv

Dw™c weÁvb wefvM, XvKv wekte`vj q  
wk¶veI © 2017-2018

dvÜvtgUvj †R†bU† i Kvm g'vg t†Ü†j i 1g m†i e'wZµg cow'Q†j b| cÖZ'K R†ei  
`eikó" wqšY K†i Rxb hv†K t†Ü†j d'v±i etj wQ†j b|

t†Ü†j i 1g m† e"Lv Ki†j hv`wovq Zv n†jv tKvb j † Ges tKvb Lv†Uv R†ei µm Ki†j  
hw`GLv†b j † `eikó" cKvkKvix RxbU cKU nq Ges Lv†Uv `eikó" cKvkKvix RxbU cÖQb†ng  
Zvntj cÜg cR†b†i mKj eskai j † n†e, wZxq cR†b†i PviwU eskai n†j wZbU j † Ges  
GKwU Lv†Uv n†e| BvUvtgW†tqU Rxe ev gvSvvi Rxe nI qv m†e bv|

wKš' t†Ü†j i m†i e'wZµg n†jv R†bi Am'úY©cKUZv| cKU Rxb m'úY†ve cÖQ†b†e Dci  
c†ve we`hi Ki†Z bv cv†j BvUvtgW†tqU Rxe AmefZ n†e ev gvSvvi AvKv†i Rxe †`Lv  
hv†e|

wZwb Gi D`vniY w†m†e möcWMB Gi K\_v etj wQ†j b| möcWMB d†j i t¶†† mv`v Ges  
AvB†fvvi (njÿvf mv`v/wN eY) µm Ki†j †`Lv hvq cieZ©cR†b† g'v†RvUv etY† d†j i MvQ  
cvl qv hvq| Av†iv Mfxi fv†e †`L†j GUv nq G†švrvqwb bvgK t†Ü†j vBU Gi Dcw`wZi  
Rb`|

möcWMB (*Antirrhinum majus*) bvgUv cwi wPZ wKš' GLv†b i b†ev Avkv Kwv w| BD†iv†ci  
t†wUf GB Dw™c wU c†q GK wGUvi chŠ-n†Z cv†i Z†e m†avi YZ GZ eo n†Z †`Lv hvq bv|  
el Rxe Dw™c m†iv eQi B d†j †`Lv hvq|

GB d†j i `ß cv†k Pvc w`†j Gi g†Uv evB†i i w†K tei n†q Av†m hv† †`L†Z wKQv e'vO ev  
WMB†bi gZ j v†M ZvB Gi bvg möcWMB| jvj, tMj wic, mv`v, njÿ, AvB†fvix, g'v†RvUv Ges  
GB,†jv etY† Av†iv A†bK wg. d†j nq GB möcWMB†bi| GB Dw™†`i eY©wba¶YKvix  
Rxb,†jvi Am'úY©cKUZv †`Lv †`q etj B GZ eY©Zix nq ev g'v†gi K\_v,†jv i†b ax†i ax†i  
cwi`vi n†jv| GB Dw™†`i wKQwe†kl `eikó"i Rb` tm mevi t††q Avj v`v| GB möcWMB i ay  
i††cB bq, †b† Ab†`i t††q GK avc Gw†tq| AvR GB d†j i MvQUv th KZ KZ M†el Yvi  
wkKvi Zvi w†me †bB| †R†bU. †W††j c†gU, ev†qv†KwK`vj Gi Rb` c†q GK kZvāx a†i  
GB möcWMB n†jv M†el Yvi wWbucM| i b†Z AvöhrbK g†b n†j I GB Dw™†`i wekU†i gZ

cRbfb m¶g nvBieW AvfQ| eúgŷ tivfM, wj fvfi mgm'vq ~vwf©tivfM GgbwK wJDgvi  
wPwKrmvq Gi fwgKv itqtQ| Gi GwUgvBtµwmeqj tcŌcwU©cŷwmbZ| GwUl w fWwU Gi  
Dcw wZ AvfQ etj Rvbr hvq|



I, ej v nqwb, tcwi tdi vj bvfŷm wmw÷tg mœcwWmb Gi KvRwi Zv cwj w¶Z ntqtQ| mœcwWmb  
Gi K\_v gv\_vq Njvi Kvi tY gv tgi Kvm th Klb tkl ntq tMŷtj v eŷtZB cwj wb|  
Zte hvq tnvK br tKb w`b tktl GZwKQz ,bv ,b \_vKv mtEj| AvR Rwb br etj i'agvŷ etYŷ  
e`envti i Rfb`B evMvfb GB mœcwWmb Gi RvqMv tgtj |



# emšiši evZv@btq cj vk dj

†gvršš vmiš K nrvb

Dvšš veÁvb wefvM, XvKv vekpe`vj q  
vkŕveš 2017-2018

†QvU †ejvq GKw`b fvB†qi mv†\_ †÷wWqv†g wM†qvQj vg | †÷wWqv†gi †M†Ui cv†kB GK  
Pgr†Kvi dj ††LwQj vg, bvg RvbZvg bv Z†e L†e fv†j v †j †MwQ†j v | dj †j v ZvB wKQz Kuro†q  
evmvq wbtq wM†qvQj vg | Avšš ††L etj wQ†j v cj vk, †Kv\_v †\_†K wbtq Avmj v | GB†Zv cj v†ki  
mv†\_ cŕg cwi Pq | mK†j i GK cwi wPZ dj cj vk |

%ÁvbK bvg: *Butea monosperma*



GB kv†Zi me†P†q AvKlŕxq i†c cj v†ki | emšiši evZševnK | dj †j v hLb Mv†Q \_v†K MvQ  
††L g†b nq †hb tm Sv†K Sv†K AmsL` Mij Z tmvbi Aj skvi c†i Av†Q | w†R†K mwiR†q  
Z†j †Q Acifc mv†S | i ayZvB bq, tm Zvi Aj skvi mevi gv†S wevj †q w †Q wbiŕvq |

GB tmB cj vk hv†K w†i i wPZ n†q†Q mnm†Kve, M†, Dcb`vm | GB tmB cj vk th wKbv mvŕx  
n†q Av†Q AMwYZ BwZnv†mi | n†qZv tmB BwZnv†mi Rj š–Awm†e eintcKvk K†i etj B AvR  
Zvi GB i†c |

cj vk Gi B†KvbngK f'vj| Kg bq| cj v†ki eūmea e'envi i†q†Q| cj vk Gi cvZv †\_†K 'i i"  
K†i KvŪ, evKj GgbwK Gi †\_†K wBMZ AvVl e'ëüZ nq| cj vk dj †\_†K WvB ^Zix Kiv  
nq| cj v†ki KvŪ †\_†K fvj gv†bi QvB cvl qv hvq| cvk@Zi†`k fvi†Z †M†j nqZ GB  
cj v†ki cvZvq Lvevi †L†Z cvl qvi NUbvl NU†Z cv†i | G Qvov, Gi gv†S U'wbb, tiwRb Gi  
gZ gj "evb c`v\_©Av†Q|

GB tde\*qwii gym thb cj v†ki gym| \_†i \_†i \_vK cj vk, N†i N†i tnvK cj v†ki AvMgb|

## mvK@k¶v mdi -2018

DwM© weÁvb wefvM, Rvrv½xi bMi wekpe`vj q MZ 26 tk btf²†, 2018 ntZ 9 w`b e`w© 3q ce©mæZK (m²sb) tkYxi QvÎ-QvÎxf` i wbtq fvi Z I flvfb wk¶v mdi i AvtqvRb Kti b| 5 Rb wk¶K Ges 45 Rb QvÎ-QvÎxi G wk¶v mdi tbZZj f` b Aa`vcK W. tgyt bju Avj g| G wk¶v mdi Zviv fvi tZi wkuj ,w, `wRfj s, Rj cvB,w, wvDRj cvB,w, RqMwI I flvfbi dj mwj s, w\_²uy I cvfivi feKwZ, cØKwZK ebvÁj mn wevfbae`kØxq `vb cwi`kØ Kti | BwZcfe©AÎ wefvM 2002 mvj fvi tZi wevfbaeAÁj wk¶v mdi Mgb Kti wQj |



flvb `evsj vt`k nvBKwgbvti i Avgšpµtg tmšRb` mv¶vZ



flvb mdi QvÎ-QvÎx I wk¶Kej`

## fviṭZi DĒie½ vekṭe`vj ṭq Rvrv/zi bMi vekṭe`vj ṭqi Dw̄c weÁvb wefv̄Mi QvĪ-QvĪx I v̄kṭKeṭ`i mdi

v̄kṭiv mdi i Ask v̄nt̄m̄te Dw̄c weÁvb wefv̄M, Rvrv/zi bMi vekṭe`vj ṭqi 45 Rb QvĪ-QvĪx I 5 Rb v̄kṭṭKi GKv̄ cĀZv̄bva`j MZ 4Vv v̄v̄m̄t̄ fviṭZi Rj cvB, v̄o ṭRj vq Aew-Z DĒie½ vekṭe`vj ṭqi Dw̄c weÁvb wefv̄M, v̄U mv̄t̄qY I ev̄t̄qvBbdiṭḡv̄U. wefv̄M cwi`k̄ṭ Kṭi| D³ wefv̄M, v̄j i v̄kṭiv I M̄t̄elYv Kiv̄ṭg m̄v̄t̄K̄ j v̄U AewZ nb Ges f̄iel`ṭZ D³ vekṭe`vj ṭqi Dw̄c weÁvb wefv̄Mi mv̄t̄ MoU Kivi e`cv̄ṭi Av̄t̄j vPbv Kṭib| QvĪ-QvĪx I v̄kṭKiv D³ vekṭe`vj ṭqi DNA j`ve, v̄mm̄t̄Uv̄ḡv̄U. j ṭv, জার্মগ্নRg ṭm̄Uvi, v̄U Mv̄t̄W̄ I vekṭe`vj ṭqi v̄bR`^ebv̄Aj cwi`k̄ṭ Kṭi v̄v̄v̄b̄v̄elṭq ev`e Ávb jvf Kṭib|



fviṭZi DĒie½ vekṭe`vj q cwi`k̄ṭ v̄kṭKeṭ`

## ṭevUwbK`vj ṭm̄mv̄Bv̄U KZṚ Aa`vcK W. ṭgvt Avej nv̄mv̄ Uṭ÷ dv̄ṭŪi ev̄Ē j vf

Rvrv/zi bMi vekṭe`vj q Dw̄c weÁvb wefv̄Mi 2017 mv̄t̄j i v̄v̄ZK (m̄v̄ṭb) Pdv̄š-cixṭv̄q m̄t̄eṖP 3.89 CGPA ṭct̄q cĀg v̄vb Av̄v̄Kivi Kiv̄q ṭgv̄Qvt kv̄v̄v̄ LvZb Aa`vcK W. ṭgvt Avej nv̄mv̄ Uṭ÷ dv̄ṭŪi ev̄Ē jvf Kṭi| ev̄Ē eve` 5000/- (civ̄P nv̄Rvi) Uv̄Kivi ṭPK wefv̄Mxq Ab̄v̄ṭbi ḡv̄aṭg n`v̄ṭi Kṭib fvi cĀṢ wefv̄Mxq m̄fv̄cv̄Z Aa`vcK W. ṭgvt b̄j Av̄j g I Ab`vb` v̄kṭKeṭ` |



# Օեսյ վ՛կ GKվWոց Ae GւMՔvj Pvi Օ KZR իMվի տցՒWj cՕՅ



**cՕdmi W. tցոնսճ Kցvj տոնսBb**

Bbw÷ւJDU Ae dժիw÷՝GՕ Gbfvqi bժցւլvj մտգժ՛Yմ

W. tցոնսճ Kցvj տոնսBb PԱEMՕց ւեկլե՛ ՚՛vj ժգի Dւ՛ՄԸ ւեԱ՛ւb ւեfvM ոժZ 1980-1981 տմկժb հ\_ւււժց ւե.Gմւմ. (մսճԵb) Ges Gg.Gմւմ. cՕց տկ՛ՎժZ cՕց ոժց յՄՄՕ jւf Kժիb| 1984 մժb Եսյ վ՛կ Եb MժելYւ Bbw÷ւJDUժի ւմj ւfKvj Pvi ւի մւP՞ւեfvժM MժելYւ KցՔZՔ ւոնմժե KցՔԵb ՚ի՛ Kժիb| 1989-1992 մժj Kցblժqj \_ ՚jւիկԻc ւbժq հԻՅ իւժR՛ի GեւՄՕ ւեկլե՛ ՚՛vj ժգի dժիw÷՝ ւեfvժM ւcGBP.ւՄ. Kժիb| 1993 մժj Bbw÷ւJDU Ae dժիw÷ժZ մոKւիԻ Աա՛ւcK ւոնմժե իւՄ՛ ւb Kժի 2001 մժj GKB Bbw÷ւJDU cՕdmi ւոնմժե cժ՛ ւbւZ jւf Kժիb| 2002-2003 մժb Աւեժիւ Kցblժqj \_ տcւ÷Wժ±ւիւj տժj ւկԻc ւbժq հԻՅ իւժR՛ Mցb Kժիb|

BժZւցժա՛ W. տոնսBժիbi 152 յւ MժելYւ cՕՍ ՚՛ կւ/ւեժ՛ կԻ Rւbժj cՕKւկZ ոգ| GQոո cՕգ 44 յւ cՕՍ Kbdւի՛Y cՕնւՄs/eB Աա՛ւգ Ges 12 յւ ԵB հԻՄfvժե/GKKfvժե cՕKւկZ ոգ|

Ե՛Ղ MժելYւ, մսի ՂY I D՛ՄԵb ւելժq G շԵ-4 Rb ւcGBP.ւՄ., 63 Rb Gg.Gմ./Gg.Gմւմ. I 102 Rb մսճԵb ժկ՛ՎԻ Qւ՛I/Qւ՛Iժ՛ i ւ\_ւմմ/cՕR± ՚ժcւիi ZԵԵաւգK (մյւի fvBRւի) ւոնմժե Եb ւեԱ՛ւժի ւեւfԵbւելժq MժելYւ KւR մսճԵKժիb| Ե՛Ղ MժելYւ, մսի ՂY I D՛ՄԵb մսմւՅ- KւժRi ՚՛ՔււZ ՚՛ժc 2014 մժj ՕԵ՛Ղիւcժb cՕնւbցճԻ RւZԻq cյ\_ւիՕ jւf Kժիb| ԵbւեԱ՛ւժի ւեւfԵbԵկւլւգ RւZԻqfvժե Աե՛ւժի Rb՛ 2018 մժj ՕԵսյ վ՛կ GKվWոց Ae GւMՔvj Pvi Օ KZR իMվի տցՒWj jւf Kժիb| W. տոնսBb ԵZՅւժb Եսյ վ՛ժի ւեԵԵՕգ Ե՛Ղ cՕRւիZ ԱբյնՍւb, dj/exR մսՄՕ Ges Pւիւ DժԵյ ժի գւա՛ժ PԱEMՕց ւեկլե՛ ՚՛vj q K՛ւս՛ւժմ մսի ՂYi KւժR ւbժցւՒRZ ԱւժQb| Եսյ վ՛կ Kւլ MժելYւ KւDւYժi մոնգZւգ W. տոնսBb ԵZՅւժb ւեԵԵՕRւիZ I Ե՛Ղ ԵXR մսի ՂYմի Mժիbi KւժR ւbժցւՒRZ ԱւժQb|