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HUAN ENKAWLTU



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Government of Mizoram
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Contents

1. Editorial 2
2. Lawmthu sawina 3
3. Ser tana tui ngaihtuah 4
4. Fertilizer chanchin leh 9
a hman dan tlangpui
5. Damdawi tha te 12
6. Coconut 15
7. Farm Operation Manual 18
April – December
8. Keimahni 29
9. Obituary 32



Editorial



KHAWVÊL HMASÂWNNA kal zel leh mihringte ei leh in mamawh phuhrûk turin Science thiamna hman tangkai zelin, khawvêla thlai tharna (ram) hmun ngaiah hian mihring a ni têla pung zelite ei leh in thar zel tur hian kan thlai chin dan pangngai mai chuan kan mamawhte kan thar chhuak zo tawh lo a. He harsatna su kiang tur hian mi thiamten thlai chin dan tha zâwk hmuchhuak zelin, heng zingah hian a pawimawh ber mai chu thlai chi tha thar hlâwk leh thar hma a ni kan ti thei ang. Hei hi hriain Mizoram Horticulture Department chuan thlai chi tha leh thar hlâwk chauh kan mipuiten an chin theih nan theih tawpin hmá a la a.

Thlai chi tha chauh mipuiin an chin theihna Seed industry rin tlâk leh rin ngamte ațangin thlai chi tha Hybrid la chhuakin mipuite hnenah a pe chhuak thin a. Tin, thei kung tha leh hrisel thar hma leh hlâwk zâwk kan chin theih nan Israel sorkar te nen tangkawpin thei tiak thar chhuahna hmunpui Nursery leh a chi tha lakna tur a kungpui tha leh natna laka fihlim chinna hmun Scion Bank, khawvel pumah pawh chhuanaum pha, Horticulture Centre, Chite, Aizawl a din fel tawh a. Thei tiak thartu (Nursery Man) te pawhin thlai tiak tha leh hrisel phun tlâk ngei an thar chhuah theih nan Fruit Nursery Act hmangin Nursery te register vek an ni a. Hemi kaunga Mizoram Horticulture hmalâkna chu Govt. of India pawhin chhuanaum a ti a. India ram State te zingah Mizoram Horticulture Department chu Execellence Award dt. 18th February, 2012 khan Ashok Hotel-ah Pu Sharad Pawar, Union Minister of Agriculture & Food Processing Industries in Mizoram Director of Horticulture hnenah a hlân hial a ni.

Huan thlai siamtute nakina harsatna tam tak kan pumpellh theih nan kan hma lawka thlai chin leh phun hunah pawh hian thlai chi/tiak tha leh hrisel hriat chian leh register nursery te hnen ațang ngeia mi phun i tum ang u.

To

The Editor,
 Huan Enkawltu
 Department of Horticulture
 Aizawl, Mizoram

Subject : Lawmthu sawina

Ka pu,

Khawngaih takin he lawmthu sawina hi i chanchinbu-ah min tihchhuahsak turin ka ngen che a ni.

Kan khua Paitharah hian Serthlum huan siama eizawnna atana innghahna tlak a tlinzia hriaa siam tawhte leh siam mekte kan awm nual a. Chung theite chu a enkawlna tura Damdawi chi hrang hrang leh leitha te, sprayer te leh sum chena Department-in min pe thin hi huan neitute kan lawm tak zet a, a bik takin Horticulture Department Lawngtlai Division-a thawktute chungah lawm thu kan sawi a ni. Hmathar lakkhlel takin kan thlir reng a ni.

Huan neitute aiawhin

I rintlak,

Sd/-
 VLALNUNMAWIA

Secretary
 Citrus Plantation & Marketing Society
 Paithar

Dated Paithar,
 the 23rdFebruary, 2012



SERTE TANA TUI NGAIHTUAH (Integrated Water Management in Citrus)

**SERTHLUM HUAN THA NEIH
NANA TUI PAWIMAWHNATE**

Kan ngaihtuah hmasak atana tulte

1. Fur laia kan ramin kum tin ruah tui a dawn thin hi Serte tan pawi thlen khawpin a tam tlangpui.
2. Thal laia leilung ro thin hi Serin a tuar hman êm êm thin.
3. Khaw khen kum thleng ziah thin phei hi chu a kum la laa rah a chhuah loh mai bâkah a hnû thleng pawhin a chhiat hlen phah thei.

Heng atang mai pawh hian tui chu Ser tan chhiatna leh thatna thlentu a ni tih chu a chiang mai àwm e. Ser reng reng hian khaw kheng/khaw ro leh tuidul lutuk hi a haw hle a ni. Chuvangin, kan sik leh sâ hi a awm ang anga kan sepui ruah tuar ngawt chuan rei daih tur hi a ni lo reng a. Hemi laka chhanchhuak tur chuan ngaihtuahna

tak tak hmang a, tha leh zung, sum leh pai sen hautak ber hmachhawn a ngai reng a ni. Furah ruah kan sur tlemfir ngawt thei si lo va, thalah ruah kan surtir ngawt thei hek lo. Hei vang tak hian ngaihtuahna zau zawk hmanga kawng hrang hrang dap chu kan tih mäkmawh a ni ta a ni. Fur laia tui tam lutukin chhiatna a thlen theih te chu engte nge ni a, engtin nge kan vèn ang? Thal laia khaw ro chu engtiang chiahin nge ser tan a pawi a, hautak hle mah se, engtin nge a zualpui tal kan phuhrûk ang, kan ti si a nih chuan mut mawh hnár mawhah kan lâk a ngai a ni. Tui tlem lutuk leh tam lutuk lakah enkawl loh hi a tar leh tám thlentu ber pakhat a ni si a.

Aw le, Serthlum hi ram lum lutuk lo leh vâwt lutuk lo (Sub-tropical climate)-a chin chi ho-ah chuan tui mamawh hnem ber thlai a ni a. Chuvangin, tui pêk (irrigation) hi hna pawimawh berah an nei thin. A chhan chu hnahte tla kawlh lova hring reng a

nih avangin leh zik no chhuaha thang zawn deuh reng a nih bik vang a ni. Zâi taka ruahui tlâkna-ah chuan 900-1100mm-a tam sur thinnah pawh a chin theih a. Mizoramah hian a tlangpuin kum khat chhunga kan ruahui dawn hi 2500mm-a tam a ni a. Sawi tawh angin Sub-tropical thlai a nih avangin lum lutuk te, vâwt lutuk te, tlang sang lutuk – 100mt aia sang te, phai khaw lum leh hnawng tam lutuk te a ngeih lo a ni.

I. Fur ruahin chhiatna a thlen theih langsar te

- a) Lei chunglang lei tha a len bo.
- b) Thlai chaw (Nutrients) te lei hnuiah a pût bopui.
- c) Phytophthora, Nematode, etc. natna a tipung.

Ser tiak hlim atanga a puitlin thleng, a pùl kan tih thlentu leh tunlaia a tám kan tih thlentu bul ber a ni. Heng natna hrang hrang foot rot, root rot, gummosis, leaf fall, dieback leh brown rot te thlentu a ni. Leia awm chi (soil borne disease) a ni a, 'Water loving fungus' a nih bawk avangin tui tlin theihnaah lei rei tak chhung ruah a sur hnawnten a piang thei a, thal leh thlasikah chuan kâwr chhah tak (oospores leh walled spores) te insiamin a dam khawchhuak a, khaw lum leh hnawngah a inthlah puang vak a, tuihawk ten a len darh a, a zung hmawrah telutin a ei che thin a, a zung natna te hi a thlen ta thin a ni.

II. Fur ruahui theh thang dan tur

- a) Lei luang ral tur ven nan chang-kham te, mulching te, terrace/halfmoon terrace siam te, contour trench te, strip cropping/ Vegetative barrier te siam hi a ni.
- b) Phytophthora disease laka ven nan Ser kung bul vel hnawn rei loh nan phun atang rengin a kung bul chu hnawh pâwn thin tur a ni.
- c) Fur dawn apiangin a buk pawn chin velah tui luanna (drainage) siam thin tur a ni.

III. Thal leh khawkheng a huat dan

Thlai reng reng hian than nan leh rah chhuah nan hun pawimawh bik (critical growth stages) an nei vek mai a. Hetiang hun bikah hian tui leh chaw an mamawh zual thin. Serthlum pawh hian October-May thla chung hian hetiang hun pawimawh tak tak, a hnawh insiam/than lai (leaf expansion) te, a par hun te, a rah insiam tan lai leh a rah than chhoh lai hun te a nei a. Hemi hun laia kan ser ten chaw leh tui an kham khawp lo a nih chuan rah a chhuah tha thei la mai ni lovin, a chhiat hlen phah thei tih kan sawi tawh kha. A khur lai mumal lova lei thawleng leh awih pangtea phun mai mai te kan nih thin avangin fur a zawh rualin lei a ro nghal a, hnawnna awm lo chuan kan ser zung ten chaw an ei ngawt thei si lova, a tlangpuin kum tin thla ruk chuang chu chaw kan ngheitir thin ang a ni a, an khawngai-thlak ngawt mai ti rawh u. Kum 1998 khawkheng phei kha chu tun thlenga kan ser titartu/titamtu bul ber pakhat

a ni tlatin a hriat a ni. Ni tin mai khan chhun dar 11 vel aṭang kha chuan a uai sul mai a, chawhnu lamah phei chuan a thi ro thei mai ang tih hlauhawm khawpin a awm thin a, zing lamah chuan a lo harh leh deuh thin chauh a nih kha. Khatiang hun kha thleng leh thei kan ni a, khatiang khawkheng em a thlen loh pawhin sawi tawh angin kum tin than thuttir khawp chuan ṭhal a tuar ziah a ni. Tuna kan ser rah tha deuh ho pawh hi a tlangpuiin dam lam leh ngaw dai hnaih lam pang a ni tlangpui a ni.

IV. Thal laia tui pek dan tur

Heti khawpa kan ser ten tui an mamawh avang hian harsain hautak hle mah se, an tui mamawh phuhruk hram dan ngaihtuah leh ruahmanna tha neih hi an phu em em a. Hun pawimawh zual bik kan tih – ‘Critical growth stages’ laia a tawk chauha tui leh chaw pek hian a tiṭhang duang a, a rah tla a titlem a, a rah tam a, a rah tha a, a kung a hriselin a tla phah em em a ni. Tui mamawh phuhruk tura ruahmanna tha kan tihin a tum ber te chu heng te hi an ni.

- Boruak lum leh khawro dan mil zela tui mamawh tawk pek dan tur.
- Tui pek hun dik tak hriat nan.
- Tui pek dan tha, awlsam leh renchem dan te hriat nan.
- Tui luang ral, put ral leh tuihu-a tham ral (evaporation lose) ven dan tur.
- Lei chunglang luang ral tur ven leh hnawng vawn that dan tur.

- Tui pek ruala thlai chaw pek dan (Fertigation) ngaihtuah te an ni tlangpui.

Tui a mamawh tlem leh tam dan chu heng thil chi hrang hrangte hian a hril bawk ang

1. Leilung pianzia azir

A sakhat leh thaw-len dan azirte, lei timur insiam dan leh lei tha thuk dan a zir te-in.

2. Sik Ieh sa

Khaw lum leh vawh dan (temperature) a zir te, thli thawt dan azir (thli a thawt nasat chuan a hnah aṭangin tui hu a chhuak tam) te, nisat dan azir te, lei aṭanga tuihu chhuak (evaporation) a tam dan te, ruah tlak dan azirte leh ni sat chhung rei dan (sunshine hours) azir te-in.

3. Thlai upat leh len dan azir te, a than dan bi (stage of crop) azirte leh phun kar hlat leh a buk dan azirte-in.

Hengte hi ngun taka thlir hian kan huan theuhten tui a mamawh dan tur tawk chu a chhut theih dawn a. Ngaihdan kan neih thiam lehzual nan Nagpur hmuna serthlumin tui a mamawh dan an chhut chhuah hi lo en tlang leh ila. An leilung hi kan lei ai chuan a sakhat tlangpui (a hnawng rei thei zawk) chutih rualin khua a lum zawk em em a, ruahtui pawh a tlem zawk hle bawk a, tui pawh keini ai chuan an mamawh hnem ang.

Ni tin-a Ser kung 1- in tui a mamawh dan (In litre):

Month	Ser naupang (20% ground cover)	Ser laihawl (50% ground cover)	Ser puitling (70% ground cover)
January	14.96	44.22	71.44
February	20.15	59.4	96.18
March	26.17	78.48	126.5
April	29.16	87.48	142.88
May	33.98	101.94	165.91
June	21.73	66.42	109.89
July	18.27	55.8	92.38
August	13.95	42.45	70.25
September	14.96	45.63	75.49
October	16.87	51.56	91.9
November	14.97	44.88	73.8
December	11.25	34.88	56.97

Hei hi ni tina a mamawh dan chu ni mah se, ni tin pek a ngai chiah chuang lo va, a tlangpuiin thlasik lai chuan ni 10-15 danah pawh pek a pawi lo va, nipiuh erawh chuan ni 3-4 danah emaw kar tin tal pek a tha a. A kung naupang (la rah lo) aiin a kung puitling chu pek zin zawk tur a ni. Drip Irrigation ang chi kan hmang a nih chuan ni 2-3 danah pek thin tur a ni.

Tui pek dan tur (Method of Irrigation)

Tui pek dan hrang hrang zingah kan ram leilung dinhmun leh kan enkawi phak tawk ngaihtuahin bucket-a pek maite (a kung leih tel lovin), pipe-a khawh huhtir te, tui um hnam dah hual

mai te pawh a hman theih a. Drip Irrigation pangngai hi kan tih ve theih mai tur, kan hmachhawp tur zinga tel chi a ni.

Heti hian fur lai pawhin ruah tlak mumal loh dan azirin kan ser te tui pek a ngai thin tih a hriat a. Ama'rawh chu, kan hriat ngei ngei tur awm ta chu a par dawn hun vela ruah a sur emaw tui pek nasat erawh chuan par lovin a chawr duah hluah thin a, a rah tlem thin. Chuvangin, a par hma ni 30-40 vel (February 1st week - March) chu tui pek loh a tha. Tui pek tawp ber leh pek leh hmasak berah erawh chuan tam tawk taka pek tur a ni.

Mulching

Hei hi Mizo ṭawng ang hiala kan hman lar tawh a ni a, leiin hnawng a pai rei nana hnim emaw sarang hmanga khuh hi a ni mai a. Mulching atan chuan hnim te, Buhpawl, di, rairuang, changel/balhla kung/hnah te (polythene) te pawh a hman theih vek a ni. Hnim Lampang chi-ah chuan Buhpawl leh Grass lam chi a tha ber a, Polythene-ah chuan a dum ni se, a tha ber bawk. A kung bul feet 1 bial chu khuh tel lovin tihfai reng tur a ni a, a bak chu a zau thei ang leh a chhah thei ang bera khuh a tha mai. Ruahtui

hnawng a la tam lai October-November-ah khuh ṭan thei ila a ṭha ber a, kan hman ta lo a nih pawhin January-February-ah lei ṭha pek te khuh nan a hman theih bawk.

Mulching hian lei hnawnna 10% thleng a vawng tha thei a, hnim a titlem a, lei a tidur a, a tawih chuan thlai chaw a siam a, thlasikah lei a tilum a, nipiuh a vawng fai ve thung bawk a ni. Hengte avang hian ser rah pawh za-a sawmthum (30%) thlengin a tihlawk thei a, a quality a that phah a, a thlum phah bawk a ni.



FERTILIZER CHANCHIN LEH A HMAN DAN TLANGPUI



Fertilizer hi kan ramah kan hmang ve nasa ta hle mai a. Fertilizer hming hre lo pawh kan awm tawh awm love. Fertilizer hming lam rik tawh hi chuan kan rilsruah DAP, MOP, etc. te hi an lo lang nghal maiin a rinawm a. Amaherawhchu thingtlang hmun hrang hranga kan zin velnaah huan leh loneitu tam tak fertilizer chanchin la hrechiang tawk lo an awmin, leh ziak ngeia siam tura min ngenna angin, Fertilizer chanchin tlangpui leh a thawh dan ka han tarlang ve a, hei hian thlaiten an mamawh tawk chauh kan pek thiam theih nana min puitu a nih ngei ka beisei.

Fertilizer kan huan leh lo-a kan pek an chhan chu kan huan thlai leh buh that nan a ni a. Fertilizer kan han pek a, kan buh leh huan thlai te, buh te leh thei kung te hian thilnung dang ang bawkin, an than len puitlin nan leh rah chhuah nan chaw an mamawh ve a. Chung an chaw mamawh te chu chi hrang hrang sawmparuk (16)

hmuh chhuah a ni tawh a. Chung te chu – (1) Carbon (2) Oxyzen (3) Hydrogen – heng tui leh boruak atanga an hmuh a ni a, a dang zawnge hi lei atanga an hmuh a ni thung. Chungte chu – (4) Nitrogen (5) Phosphorus (6) Pottassium (7) Calcium (8) Magnesium (9) Sulphur (10) Iron (11) Manganese (12) Boron (13) Zinc (14) Copper (15) Molydenum (16) Chlorine te an ni.

Heng thlai chaw chi hrang hrang te hi thlai ten an mamawh tam dan a inang lova, amaherawhchu an vai hian an pawimawh vek a ni. Kum tina thlai chinna ram leilet, terrace te leh ser huan angah te chuan heng thlai chaw te hi thlai ten an ei dak thin avangin an lo thar hlawk lo tial tial a. Chuvangin kum tina buh leh bal thar hlawk tur chuan leitha (fertilizer) te hi kum tin a pek belh zel a lo ngai ta thin a ni.

Thlai chaw kan sawi tak te zingah thlaiten an chawpui ber leh an mamawh hnem bik pathum a awm a, chungte chu

- Nitrogen (N), Phosphorous (P), leh Potassium (K) te an ni a, a sawi awlsam nan NKP an ti mai thin. Heng chi thum te hi kum tin pek ziah an ngai a, thlai chaw dang te erawh chu a bika an mamawhna hmunah lo chuan pek ziah an ngai lem lo a ni.

Thlai chaw chi hrang hrang pe theitu an siam chhuah te hi fertilizer kan tihte chu an ni a. Heng fertilizer te hi a chak dan leh an thlai chaw pai te a inang lo va, a thenin thlai chaw chi khat chauh an pai laiin a thenin chi khat aia tam an pai a ni..

Fertilizer hrang hrang lar zualte chu heng hi a ni

Sl. No.	Fertilizer Hming	Thlai chaw an pai zat (za zelah)		
		N	P	K
	NITROGEN PAI CHI TE			
1	Urea	46	-	-
2	Calcium Ammonium Nitrate (CAN)	26	-	-
3	Ammonium Sulphate (AS)	20.6	-	-
	PHOSPHATE PAI CHI TE			
1	Diammonium Phosphate (DAP)	18	46	-
2	Single Super Phosphate (SSP)	-	16	-
3	Triple Super Phosphate (TSP)	-	46	-
4	Bone Neal (Raw)	3.4	20	-
5	Bone Meal (Steamed)	1.2	22	-
6	Rock Phosphate	-	20-24	-
	POTASSIUM PAI CHI TE			
1	Muriate of Potash (MOP)	-	-	60
2	Potassium sulphate	-	-	40

Fertilizer NPK hnathawh dan tlangpui leh Mizoram fertilizer kan hman lar zual te -

1. Nitrogen

- i) Thlai nunna ber a ni.
- ii) A than lentirtu a ni.
- iii) Thlai hrinna petu a ni.
- iv) Thlai chaw chi dang an ei that theih

nan puitu a ni bawk. A pe theitu Fertilizer hming: Urea leh DAP

2. Phosphorus (P)

- i) Thlai chakna petu a ni.
- ii) A zung chhuah hmatirtu.
- iii) Thlai rah ti thatu a ni.
- iv) Nitrogen an ei tam lutuk tur vengtu a ni bawk. A pe theitu Fertilizer

hming : DAP, SSP, Bonemeal, Rock phosphate.

3. Potassium (K)

- i) Thlai natna te leh sik leh sa danglam thutin a tihchhiat tur laka vengtu leh dotirtu a ni.
- ii) Thlumna siamtu leh petu a ni. Alu, Kawlbahra, Balhla etc. ten an mamawh tam bik a ni.
- iv) Nitrogen leh phosphorus an ei that theih nana puitu a ni bawk. A pe theitu Fertilizer hming - MOP.

Fertilizer hrang hrang hman dan tlangpui te -

1. Urea

Urea hi fertilizer zingah chuan a chak berte zinga mi a niin, boruak thawlengah dah phei chuan an tuiral vek thei a; chuvangin, bag phui tha takah an dah thin. Lei hnawng deuhah theh darhin leh hnan nghal a tha ber a, tuitlingah pekin leihnuai rilah a chakna a tham ral thin a, lei ro tak chunglangah kan pek chuan a chakna boruakah a bo thei bawk a ni. Leiah tuiralin a chakna a tham ral thin avangin vawi hnih aia tam thlaite pek thin tur a ni. Thlai chin dawn te, a zung thlak lai te leh a par lai ten pek thin a tha. Thlaite a ei chhiat theih avangin thlai chi leh zungte nena inkhawih lova pek thin tur a ni.

2. DAP

DAP hian thlai chaw pui ber pahnih Nitrogen leh Phosphorus a pai a ni. DAP hi thlai chin hma emaw a rual emawin Urea te ang bawka theh darhin leh hnan tur a ni a, vawi khata pek nghal vek tur a ni. Thlai chi leh zungte nen inkhawih lova pek a tha. A theh darh ai hian thlai tlar hrula phulin thlai ten an chhawr tangkai zawk a ni.

3. Rock Phosphate

Rock Phosphate te hi chu leiah an tui ral nghal mai loh avangin thlai chin hma chawlhkar 4-6 velah pek lawk thin tur a ni. Thlai kum hlun ho Ser te, Thei te, Thingpui leh Rubber te tan hian a tha bik a ni.

4. Super Phosphate (Single)

SSP hi DAP ang bawk a hman tur a ni a, theh darha lei leh hnan theih a ni a. Amaherawh chu thlai tlar hrul zela phulin thlaein an hlawkpui zawk.

5. MOP

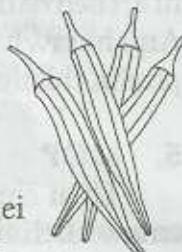
Thlai chin hma emaw chin rualin emaw theh darh a, lei leh hnan nghal tur a ni. Lei-ah a chakna a tham ral ve mai loh avangin vawi khatah pek tur zawng zawng pek vek tur a ni.

A tawp ber atan fertilizer kan hman reng rengin thlai chawpui pathum NPK pe theitu fertilizer te hi hman kim i tum ang u. Thlai ten an ngeih mai bakah leichi alin lei a tichhe tur a inveng tawn a ni.

DAMDAWI THA TE

Chawhmeh thlai, thei, thing leh hñim hnñah chi hrang hrang te hi hmakhawsang atang tawhin natna chi hrang hrang enkawl nan hman a ni tawh a, damdawi pangngai (Chemicals) aiin a man a tlawnm zawk a. Tin, hnunawi (side effect) a nei bawk si lova, chuvang chuan natna chi hrang hrang enkawl nan an chhawrnawm tak zet a ni. Tunah chuan damdawi thlai, chawhmeh atana kan hman ñin tlangpui chauh kan sawi rih ang.

**1. Bawrhsaibe
(Abelmoschus esculentus)
A ɔ̄ngkaina te**



- i) Rila natna awm thei lakah a venghim thei.
- ii) Kawpuar, pumpui leh tai (pile) tha lo enkawlna a ni.
- iii) Tihrawl natna a venghim thei.
- iv) Pneumonia, hritlang hrawk na, zun kawng tha lo, lung tha lo leh chuap TB enkawlna tha tak a ni.

A hman/siam dan

- i) Bawrhsaibe chhum tui hang hi khawsikpui leh hritlang/khuh damdawi a ni a, tin, a par leh hnñah

chhum tuihnang leh khawizu chawhpawlhi npawlha tha.

- ii) Bawrhsaibe zung (roots) chhum tui hi hmeichhe serh leh zun kawng natna enkawl nan hman a ni.
- iii) Bawrhsaibe chi (seeds) kan ro, tuilum nena kan pawlh hi lung tha lo damdawi a ni, ni tin rialna 10 vel in tur a ni.
- iv) Bawrhsaibe rah no hi ngawr (TB) damdawi tha tak a ni.

**2. Purun (Allium cepa)
A ɔ̄ngkaina te**



- i) Taksa a tiharhvang.
- ii) Hrawk a titthiang.
- iii) Hmeichhe thi neih hunbi a vawng dik.
- iv) Thisen a titthiang-hlim.
- v) T.B., V.D., Khawsikpui, zunthlum khuh, chuap tha lo, ruhseh leh asthma enkawl nan hman a ni.
- vi) Rannung seh, khawihli, hnar thi damdawi a ni.

A hman/siam dan

- i) Purun a hela ei chi, a chunga natna chi hrang hrang enkawl nana a tha.
- ii) Purun leh khawizu tlem chawhpawlhi rannung seh, bawk,

khawihli leh hnar thi enkawl nan a tha.

3. Purun var (*Allium sativum*) A tangkainate

- i) Rulhut lakah a veng him.
- ii) Chil a tihaw tha a, pum pai nuam lo, kawpuar leh pumna damdawi a ni.
- iii) Hrawk a tithiang tha.
- iv) Khawsik sang a tihniam.
- v) TB, Pneumonia, asthma enkawl nan hman a ni.
- vi) Hritlang hrawk thip, aw chhang leh tonsil damdawi a ni.
- vii) Thisen sang leh hniam venna tha ber a ni.
- viii) Natna chi hrang hrang a veng thein cancer pawh a veng thei a ni.
- ix) Beng na leh Bengngawng enkawl nan bakah sam tuak tur venna tha tak a ni.

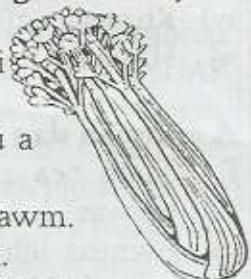


A hman/siam dan

- i) Purun var ei hi thisen sang/hniam damdawi a ni.
- ii) Purun var chhum tuihnang leh coconut oil chawhpawlhi rulhut tihreh nan hman a ni.
- iii) Purun var tui, khawizu nena pawlh hi khuhhip, khawsik leh hriatna thazam tha lo enkawl nan a tha.
- iv) Purun var tui sawr hi khuhhip, TB, beng na, Bengngawng, samtuak enkawl nan a tha.

4. Celery (*Apium graveolens*) A tangkaina

- i) Pumna damdawi a ni.
- ii) Chaw ei tituitu a ni.
- iii) Kawpuar a tiziaawm.
- iv) Pumpui a tichak.
- v) Rulhut damdawi a ni.
- vi) Asthma, thin leh kal damdawi a ni.
- vii) Luak, irhfiak, hnar natna, khawsik leh khuh tan a tha.
- viii) Ruhseh vei tan a tha.
- ix) Mipat hmeichhiatna (sex) a vawng tha.



A hman/ siam dan

Celery tui sawr hi a chunga mi zawng tan khian a tha.

5. Behliang (*Cajanus cajan*) A tangkaina te

- i) Rulhut tihremna tha tak a ni.
- ii) Phar natna vei tantir tihrehna a ni.
- iii) Ka chhung pan a tidam thei.
- iv) Luak tihrehna tha tak a ni.
- v) Lung natna, tai tha lo, khuh, etc. damdawi tha tak a ni.
- vi) Kawpuar leh ruhseh damdawi a ni.

A hman/siam dan

A chunga natna nei tan chuan a rah chhum tuihang in mai tur.

6. Vaihmarcha (*capsicum frutescens*) A tangkainate

- i) Tlem te ei chuan pumpui a tinuam
- ii) Chawei a titui.

- iii) Thisen a titthianghlim.
- iv) Khawsik a tireh.
- v) Ha na leh tonsil tan damdawi a ni.

A ei/hman dan

- i) Tlem tea ei chuan pumpui a tinuam.
- ii) Awmna leh ruhsehah a rah an hnawih thin.
- iii) A hnah chhum tuihang hi hrawk thuahna tha tak a ni.
- iv) A rah tui sawr, lapuaa tihhuh hi ha na laiah seh hnanin ha na a tiziaawm thei.
- v) A rah hi tonsil leh hrawk natna chi hrang hrang damdawi a ni.

7. Aieng (curauna domestica)

A ḥangkainate

- i) Kawpuar a tireh.
- ii) Kawṭhalo, khawsik, mitliam leh thin tha lo tan damdawi tha a ni.
- iii) Zun kawng tha lo enkawl nan.
- iv) Ulh leh pem damdawi atan.
- v) Ruhseh damdawi atan.

A ei/siam dan

- i) A zung hi kawpuar tan a tha.
- ii) A rah phoro chhum han tui hi hrawk natna chi hrang hrang, kawṭhalo, khawsik, mitliam leh zunkawng tha lo damdawi a ni.
- iii) A zung ro rawt chip hmeh diak hi ulh, pem leh ruhseh zut nan hman a ni.

8. Bekang (Glycine max)

A ḥangkainate

- i) Bekang hi zunthlum damdawi a ni.
- ii) Bekang hriak hi vun natna chi hrang hrang enkawl nan hman a ni.
- iii) Bekang hriak hi luhput tan a tha.
- iv) Chaw tha a ni.
- v) A chi rawt chip hi sam tla kawlh hnawih a tha a, tin, ruhseh enkawl nan pawh hman a ni.

Aw le, tunah chuan damdawi tha i hriat belh ta a, damdawi zawrhnaa sum tam tak i sen tur pumpelh nan a chunga thlai/hmuinhmer thlaite khi uar takin i hmang/ei ve tawh ang u.

— ၃၀၃ — HUAN ENKAWLTU — ၃၀၄ —



Coconut

COCONUT hi Mizoramah hian kan la ching uar lo hle a, hmuh tur pawh a awm meuh lo, a awm chhun pawh kung hnih khat lek, in bula chinte hi an ni mai a, tam tham deuha ching kan awm hun a ngahhlelh awm hle a ni. Kan Zoramah hian hmun tam takah a chin theih ve tho va, phai lam vai rama chin chi chauh emaw kan ti niawm a ni a, Mahse a ni bik lo tih kan hriat a pawimawh. India ramah hian coconut hi ram hectare 10,800,000 (nuai 108)-ah chin nia hriat a ni a, kum tin pum maktaduai 6,088 vel a thar chhuak thin a, khawvel pumah hian a thar chhuak hnem ber pahnihna a ni pha hial a ni.

A ram ngeih zawng

Coconut hi ram lum hnawng bawk si hmuna chin chi a ni a, tuifinriat kam leh luipui hnaihah an ching deuh ber, mahse metre 600 vela sangah pawh a boruakin a zir chuan an ching tho bawk. Kum khata ruahui tla centimetre 100-225 kum tluana semzai taka a tlakna hmunah hian a tha duh ber a, ruahui tlak tamna hmunah pawh tui luan ral zung zung theihna hmun a nih chuan a tha thei tho bawk. Rei tak tak ruahui tla lova a awmna hmunah chuan Coconut hi a tha thei lo thung a ni.

Coconut hian ram lum lutuk leh vawt lutuk a ngeih lo va, temperature 27°C leh thlasik leh nipui lum dan pawh 6°-7°C vel chauha inhlak danglamna hmun a ngeih ber.

Coconut kung chuan eng lei pawh tui tlin reng theihna hmun a nih loh chuan a ngeih deuh vek mai a, mahse tui awm theihna (water table) chim sang lutuk leh hun rei tak chhung tui tlin reng theihna hmun erawh a haw hle thung. Coconut kung hian ni eng tam tawk dawn a mamawh bawk a ni.

A chi tur thlan dan

Coconut hi a rah atanga chin danah hian fimkhur em em tur a ni. A chi atana a rah hman tur kung chu a hrisel thanin rah a chhuah tam tur a ni a, chubakah khaihlak awm miah lova kum tin rah chhuah thin a ni tur a ni bawk. Tin, a par rawn insiam chhuak leh a rah chhuah chu a inrual tawk em tih te pawh hriat a tha. Chutianga duhthusam kung atanga a rah thankin lo, te bik emaw, a rah piangsual emaw te chu thlan loh tue a ni. Tin, a tiak sa, a chi atana lak dawn pawh hian fimkhur tho tur a ni a, a tiak hrisel leh tang tha te chauh thlan chhuah bakah, a tiak chu kum khat vela upa a nih chuan hnah pariat tal a tlem berah a nei ngei ngei tur a ni a, a hnah parh chhuak hma apiangte hi a chi atan a tha tih entirna pawimawh tak pakhat a ni bawk.

A phunna tur lei buatsaik dan

A phunna tur lei azirin khur siam dan pawh a danglam thei ang. Mizoramah hi chuan khur chu feet 3-a thuk feet 3-a zau a tawk tur a ni a, phun ruala vur mai tur a ni, a khur vur nan hian lei chunglang hman a tha a, nem muk lutuk loh tur a ni. Khur

chu feet 20 vel dan zela laih tur a ni a, tlar (line) siam a tha a, a tlar inkar hlat zawng chu feet 25-30 vel ni se, Conconut chuan a lo puitlin hnuah pawh ni eng a hmu tha thei dawn a ni.

Phun sawn leh enkawl zui dan

Coconut tiakte hi June thla velah phun sawn a tha a, ni sain a em hlum mai theih loh nan zar hliah tur a ni. Tui pek fo tur a ni a, ni 4 danah pek thin a tha. Coconut tiak phun takte chu a than duan zel zawk theih nan leh a rah hma theih nan a tir te atangin enkawl ngun em em tur a ni. Phun atanga thla 30-naah Urea gram 120, SSP gram 240 leh MOP gram 440 pek tur a ni, kum hnih a lo tlin chuan kum khat a nih laia pek let pek tawh tur a ni a, kum thum a lo nih hnu chuan kung khat zelah Urea gram 720, SSP gram 720 leh MOP Kg 1 leh pava 1 vel pek tawh tur a ni. Lei that vak lohna hmuna chin a nih chuan hnimehnah tawih leh bawngek leithate pek fo a tha bawk. Coconut phunna khur chu hnimehnah awm hman lo tura tihfai a, ruah tuiin a len darh avanga lei, coconut tiaka kaite pawh tihfai thin tur a ni, coconut kungte chu rannung eichhetu leh natna lakhan ngun taka ven tur a ni bawk.

A kung puitling tawh enkawl dan

Coconut hi phun atanga kum 5-7 velah a rah tan thei a, mahse kum 10 vela upa a nih atang chauh hian rah tih tham deuh chu a chhuah thin a. Kum 50-60 vel chhung rah tha tak chhuahin a dam thei a ni. Coconut chinna hmun chu thlawh fai reng tur a ni a, a rah that theih nan bawngek leitha te, hnimehnah tawih leh lei chitea chawm reng a tha bawk.

Lei chi (fertilizer) pek zat tur chu kung khat zelah Nitrogen Kg chanve,

Phosphorus gram 300 leh Potash gram 1200 a tawk a, heng hi thar hlawk lem lo variety tan a ni a, thar hlawk chi tan chuan Nitrogen Kg 1, Phosphorus Kg chanve leh Potash Kg 2 lai a ngai thung, lei that vak lohna hmuna chuan bawngek leitha leh hnimehnah tawih Kg.50 vel kum khat chhung atan pek tel bawk tur a ni. Lei chite hi kum khat chhungin vawi hnih pek tur a ni a, Coconut kung bul hnai leh a chheh vel feet 5 huam chhungah theh darha a zungin a ei phak turin lei nen chawh pawlh tur a ni a, a zatve dang chu September thla tira pek leh tur a ni. Tin, ruah tui tlak thatna hmuna chuan thla thum dan zelah tlem te tea pek tur a ni.

Thlai dang chin pawlh

In bul hnai maia Coconut huan siam chuan Theihai te, Kuhva te, Lamkhuang te leh thei kung dangte pawh a chin pawlh theih a, tin, tui lak theih lohna hmun, ruah tui chauh ringa chin a nih chuan Coconut puitling tawh karah chuan Pangbal te, Kawlbahra te, Bal te bakah Balhla, Lakhuihthei leh Be chi hrang hrangte hi a chin pawlh chi viau bawk. Heng thlai dang chin pawlh avang hian Coconut-in a chhiat phah chuang lo va, rah a chhuah tlem phah chuang lo a ni anti. Coconut huan zau lem loah phei chuan ran vulh a, ran chaw tur thlai chi hrang hrang lei titha thei tur chin vak mai te hi a tha a, ran zun leh ekte kha coconut hian a thatpuin a thar hlawk phah a, a tangkai hle a ni.

A seng

Coconut hi thlai dangdai deuh tak chu a ni ve reng reng mai. Vawi khat a rah tawh chinah chuan a rah bawr a rawn insiam chhuak zel a, tichuan kumtluanin kum 50-60 chhung chu chhum lo chat

lovin a rah seng theih a ni thin a, chumi hnuah chuan thla hniih dan vel zelah lawh tur a awm reng tawh mai a ni. A rah no hian tui a pai hnem a, chuvangin a rah chhunga tui awm chauh duh a nih chuan a thla rukna leh thla sarihna velah hian pawh thin tur a ni a. Tin, Coconut rah chu a rah kawr hrui hram mamawh tel dawn chuan thla sawmpakhatna hnu lamah seng/lawh tur a ni.

A tlangpui thuin Coconut puitling pangngai tawhah hian kum khat chhungin a rah pum 50-75 vel a awm thei a, tha tak leh uluk taka enkawl a nih chuan pum 120 vel lai a awm thei a ni.

COCONUT EI CHHETU RANNUNG LEH A VEN DAN

1. Black headed caterlipar

Vut buak rawng phengphehlep a ni a, a notein a kung kauhniar chhung a ei a, a kauhniar chu a li uk a, a rah te pawh a tla thin a, a kung chu ni em ro angin a lang thin. He rannungin a ei chhiat kaute chu sah chhum a, 0.1% BHC leh 0.1% DDT chawhpawlha kah tur a ni.

2. Termites

Tlumpi kan tih hi a ni mai a, a tiak te an ei a, a thi mai thin a ni. Coconut chi kuina tur leia 5% Aldrin phulin Tlumpi hi a ven theih.

3. Leaf roller

Hei hi chu Coconut hnahte khawr thintu pangang a ni a, a ril hmangin a hnau a khawr a, a chhungah a tawm tlat a, a hnahte chu a ei thin a, a chi kui tiahna hmunah a awm duh bik. Pangang note chu lak khawma tihhlum zel mai tur a ni

a, tin, 0.1 NHC leh 0.1% DDT a kahin a ven theih bawk.

4. Coconut bug

Thlangdar chi khat, a zung natna thlen theitu a ni a, a zung natna (root disease) hi a lo vei chuan Coconut chu a thi mai thin. 0.1% BHC leh 0.1% DDT chawhpawlha kahin a ven theih.

COCONUT NATNA LEH ENKAWL DAN

1. Nut fall

He natna avang hian a rah no te te kha lo tawih a, a tla thin a ni. May thla tawp lama 1% Bordeaux mixture-a a rah bawr vel kahin a ven theih.

2. Stem bleeding

A kung a lo khi a, chuta tang chuan tui sen-uk a lo hnam chhuak a, a ro hnu chuan a dum thin. Hetiang a awmna lai hi thel fai a, Bordeaux mixture paint hnawih tur a ni.

3. Root rot

A hnau parh chhuak tawhte chu a lo uai a, a lo uai thla hnuang a, a hnau rawn chawr tharte pawh a tein a eng bawk a, rah a chhuah thei tawh thin lo a ni. He natnain a ei chhiat kungte chu kih a, kar chhuah hnuah hal ral tur a ni a. Tin, a kung awmna laiah khan Sulphur kg 1 vel theh a, len nen chawhpawlha tur a ni.

4. Leaf rot

He natna avang hian a hnau hmawr a dum a kir a, a hnau no deuhah te pawh khem a lo awm bawk thin a, tichuan a zik atangin a tawih tan ta thin a ni. He natna ven nan a zik chawr te chu 1% Bordeaux mixture-a kah thin tur a ni.

FARM OPERATION MANUAL

APRIL – DECEMBER

APRIL

THLAI CHIN LEH ENKAWL TURTE

Hmarcha, Behlawi leh thlai hrang hrang fur thlai tur reng rengte tun thla chhunga chin a tha. Tin, thla hmasaa kan thlai phun sawn leh chinte enkawl ngun an ngai hlein a bul velte rih tur a ni.

Venhim hna

Khua a lum tan avangin rannung a puang tan. Alu hmuna rannunge thah nan Malathion 50 Ec thirfiante riat, tin khata pawlhin kah tur. Anhnah leh thlai rah chite ven nan Carbaryl hman tur a ni. Tin, Alu tam ven nan Dithane Z-78 emaw, Captan emaw thirfiante 6, tui thin khata pawlhin kah nan hmang ang che.

THEI PHUN LEH ENKAWL

Balhla

A chinna tur khur lai tawhte chuan phun nghal a tha. Phun rualin a khur hnawh khah nan ran ek dur leh lei chunglang hman a tha. Tin, Kan thei phun reng reng khur lai takah a ngil thei ang bera phun tur. Thliin a len kawi loh nan a chertu tur mau phel emaw hma a tha.

Ser enkawl hna

Ser rah sen rannung laka ven nan Insecticide leh Rogor etc. emaw hman tur a ni. A bikin rannung Citrus Psylla, Whitefly leh Leafminer-te hian ser chawr no atanga a tuihnang an hip thin avangin a rah senin a tuar thin a ni. Tin, hmuar I;ampang natna ven nan heng Blitox emaw Bavistin emaw hman tel a tha. Damdawi kah hi vawikhat chauh duh tawk mai loh tur a ni. Urea a kung bula kum tina pek ang khan pek tur. Hei hian kawng tam takin a rah tla a veng thei.

Ser phun

Ser huan thar siam tur leh phun thar turte a khur laih zawh ngeia phun. Khur laih ngeia phun hian a thang tha duh bik hle.

Khur laih

Ser khurte 2 ft. bialin laih tur a ni. Khur laihte hi ni sain a em that theih nan dah ruah phawt a, a theih chuan a hmun kan sam faina hnah/hnim rote khur chungah hal a tha. Heng kan khur laihte hi lei chung lang leh Bawng ek, hnim hnah tawihin emaw lo hnawh khah a tha. Lei kan hnawh khahnaah hian rannung tichhetu veng turin

Furadan pawlh tur a ni. Khur inkar hlat lam hi ft. 12 - 15 in kar danah lai ang che.

Pangpar

Rose tang a hlawi leh theih ta. Tin, a tang tan chhumte a vih phun theih a, amaherawhchu vih phunna hmunah tui a tling reng thei tur a ni lo. A zung chawr hma nan Arodix/ Seradix emaw hman tur. A tang hlawi zawhin October thlaa kan tih angin a kung bul laih khurah bawng ek dur leh fertiliser N.P.K chawhpawl emaw Rose mix emaw pek leh tur a ni. Tin, a tang ro leh par hlui deuhte pawh hlawi tel a tha.

Di pangpar leh bul nei chi lampang pawh a phun theih zel. Tin, a theih chuan a phunna tur lei buatsaihnaah Furadon telh zel a tha.

Fur Pangpar chinna/kuina tur buatsaih a hun. Thlasik pangpar thenkhat Aster, Petunia, Antirhinum-te a kui leh theih. Fur pangpar Balsa, Zinnia, Gailardia etc. te kui tur a ni. A kuina tur Seed bed-ah emaw Pot-ah emaw germination tray-ah emaw a tih theih.

MAY

THLAI CHIN LEH ENKAWL TUR TE

Ram hniam lam deuhah Aieng leh Sawhthingte a la lin theih. Sawhthing chin hmaa sawisak dan chu March thlaah en rawh.

Thlai tiak leh phun sawn tawhhote damdawi, rannung thahna chia kah bakah an bul velte rih vur tur. Alu tam ven nan April thlaa sawi tawh angin damdawi kah reng rengin khaw that nia kah tur a ni. Khaw dur ni leh ruah sur tur awma a lan chuan kah loh tur. Tin, zing lamah kap ang che. Tlumpi no neih tan hun a nih avangin Carbaryl/Sevin hmangin thlai tona leilung enkawl ni se.

Ruahtui tlak that kum chuan ser leh thei dangte a phunsawn theih. Heng theite hi khur laih saah ngun taka phun tur a ni. Kan thil phun turte chu khur lai takah a ngil thei ngin nghet takin phun tur a ni. Tin, thliin a tihchhiat lohnan a ti ngil tur leh tinghet turin mau phel emaw, thingtang emaw hmang ang che. Heng kan thil phun tharte hi ruah a sur loh chuan a tir kar khat vel tal chu tui pek a tha.

Ser

Ser kung inkarah hian a rah hma turin Assam Lemon phun karthlak a tha khura thei phun zawahah a bul lei chung lang chuan ngun deuh hlekin siam tur a ni. Tui tling thei loa siam bakah hnah thei rovin emaw phun tirh chuan khuh ni se.

Theihai/Theifeimung

Thei rah ei thintu rannungte ven nan Cabrary, Rogor leh Endocel ten ni 15 - 20 dan velah theikung kah tur a ni.

Lakhuihthei

Lakhuihthei a phun theih a, phun hmain Cersan tuiyah a bul chiah a tha.

Tin, a hnalah natna chikhat dum thliah a awm thin a, hemi ven nan hian Dithane M-45 gram 2 tui litre khata pawlhin kah tur a ni.

Thingfanghma

Thei dang angin a phun sawn a hun a, a kung inkar chu 2m danah siam a tha a. A phunna hmunah hian tui a tlin reng loh nan tui inpaih chhuahna tur fel tak siam tur a ni.

Ser enkawl hna

Ruahtui tam hian rannung, ser tichhetu an pun duh avangin ser kungte pawh enkawl ngun an ngai hle. A bikin rannung chi hrang leh natna vutbuak chi leh a dangte lakah ser kungte ven uluk hle tur a ni.

Powdery Mildew

Khua a lum tan a, boruak a inhlak rual hian he vutbuak natna hi a lo pung a, thli-in a tidarh a, zankhat thil thuah huan pum a khuh thei a ni. Chuvangin kan serhuanah he hmuar natna tlemte kan hmun rualin Sulfex a kah vat loh chuan ser kung a tam phah thei tih hriat tur a ni.

Ser natna thenkhat te

Felt Disease

Ser huan upa lam leh enkawl that vak lovah a tam duh. Serthlum pangngai, Limbu leh Sertawkahte a tam duh hle. He natna avang hian Ser kung leh tangte thil hmuar chikhat han ena var rang deuhin a khuhin patek ro ang deuhten a khuh thin. Heng hmuarte hian a tanga

lawn chho zelin a hnalah chawrno a khuh chho a, rah the a chhuah theih loh phah thin. He natna laka venhim dan tha ber chu kan Ser huante enkawl ngun a nih bakah Bordeaux Mixture 4:4:50 in kah tur a ni.

JUNE

THEI PHUN LEH ENKAWL TURTE

Sapthei kui tiah

Sapthei chi thar lamte ngun taka silfai hnuah Seed bed siam saah kui tur a ni. Ruahui tam lai a nih avangin thei tiakte an tawih loh nan seed bed chu hai pawn tur a ni a, tui inhlithlawr theia siam tur a ni. Leia rannung leh natna leka ven nan Furadon leh Bavistin hman tur a ni.

Thei phunna

Thei chi hrang hrang Theihai, Kawlhei, Theifeimung leh Ser chihote phun thla a ni. Heng theite hi khur laih saah ngil tak leh nguet takin khur lai takah phun tur a ni. Khurte chu hnime tawih leh lei chung lang pawhla hnawh khah leh tur a ni. Leia rannunge ven nan Furadon hman tur. Thei phun thar te thliin a tihchhiat loh nan leh a din ngheh nan leh a nun that nan tui pek a mamawh ber a, chuvangin kar khat chhung tal chu tui pek a tha. Thei phun laiin Ser huan siam turin a hriattur chu, Ser kung karah Theifeimung phun ve zeuh zeuh a tha. Hei hian Ser rah hunah Thlangdar-in a bawmtu a veng ve thei dawn a ni.

Ser enkawl hna

Hemi thla hi ser rah thlak duh lai a niin, rannung chi hrang hrang Thlangdar leh a dangten an bawm duh hle bawk. Heng rannung tichhetute hi an puitlin tawh hnua control an har thin avangin an sen tet lai, November - January thla vela kah ngun tur a ni. Thlangdar thah nan hian Cypermethine hman a tha ber. A hman danah Horticulture Department-a mithiam te zagh mai tur a ni. Hei bakah hian Endosulfan leh Dimecron-te pawh hman a tha. (Tin, a vutbuak tihreh nan Sulfex-a kah tur a ni.) Ser natna dang, a pan te, a tang ro leh a ngett te tihreh nan Bordeaux mixture 4:4:50-a kah tur. Ser nget te enkawl nan a nget chhungah petrol emaw kah luha hluma bel hnan tur. Ser rah tlate hi a rah hnuna a titangtu chakna an tam tawk loh vang a ni ber. Hemi enkawl nan hian 2, 4-D 20 ppm hmanga ni 15 dana kah tur a ni. 20 ppm 2, 4-D siam tur chuan 20mg 2.4-D tui litre khatah chawhpawlh mai tur a ni.

THLAI VEN HIM ENKAWL HNA

Ruahtui a tam tawh avangin thlai tichhetu an tam hle. Lawng natna leh rannungte laka thlaite ven an ngai bik. Rannung laka Bean, Behlawi leh thlai dangte ven nan insecticide chi hrang hrang Sevin, Endosulfan leh a dangte hman tur. Sawhthing leh Alu-te tam laka ven nan Dithane X-78 emaw Captan emaw ni 15 dana kah tur a ni. A kahna tur damdawi thirfiante 7, tui thin khata

pawlha kah tur a ni. Kan kah atanga kar hnih hnuah chauh ei a tha.

Fanghma leh thlai thenkhatten par an chhuah a, an rah tan avangin DAP leh MOP chawhpawlh pek a tha.

JULY**THEI PHUN LEH ENKAWL TURTE**

Ruahtui tlak lai a nih avangin, Sapthei, a la kui theih in theipun la chhunzawm tur. Thei kui leh phun dan chu thla hmasa a kan sawi ang khan tintur a ni. Tin, Sapthei zar phun duh tan a zar upa lam a chang 4 - 5 in kar awmin phun tur. Thla hmasa a thilphunte an nun that chuan a bul leite a lo la hniat tawh mai thei a, lei chunglang a rihvur leh tur a ni. A kung bulah tui tlin tir loh tur a ni.

Ser enkawl hna

Furlai hi rannung eichhe tur leh natnain abawm tam lai a ni a. Tin, a rah sen tlak duh zual lai a ni bawk. A vutbuakin a bawm duh hle. Thlangdar leh rannung dangte thahnant Polytrine, Dimecron leh Rogor te hman tur a ni. Tin, leilama rannungte thah nan Furadon a kungbul velah hman bawk tur a ni. Ser rah tla ven nan 2,4D in ni 15 danah kah chhunzawm ni se. A vutbuak natna te thliin a tihdarh avangin a pung duh hle. Hemi enkawl nan hian Sulfex emaw, Sulphur dust in emaw karhnih danah a natna reh chian hma chu kah tur a ni. Ser rah a that zawk

theih nan fertilizers chi hrang Urea, DAP leh MOP te kumtir a kan hman bang pek a tha. Hei bakah hian Multiplex (micro-nutrient) ser tan a siam bikin kah a tha bawk.

Serkung nget

Rannung ten a kung an kerkuak duh hun lai a ni. A enkawl dan:

- 1) Ruahtui tamlaiin hnime leh bawlhhlawh te vawmkhawm loh tur.
- 2) A nget kua hawlh fai a, Petrol/ Khawnvartui kah luh a, hluma bel tpului tur.
- 3) Chinai leh dawmdawi chawhpawlh a kungpui lei atanga ft. 2-3 vel thleng te hnawih a tha. Tin, Bordeaux paste hnawih a tha bawk.
- 4) Alluminium phosphide mum tihsawm emaw, Nuvon emaw a nget kua ah thun a, leiban a charphui tur.
- 5) Ser tang nget ro tawh te lak khawm a halral tur.

Thlai chin leh venhim hna

Changkha leh Be lampang chi tuh chhun zawm theih. Fanghma thar tlai duh tan a chin theih. Sawhthing tam ven nan Dithane Z-78 emaw, Captan emaw thiante 7 tui tinkhata pawlh hmangin kah tur a ni. Mai leh fanghma lam chi hote tichhetu rannungte chu Rogor, Endusulfan te a kah tur a ni. tin, a vutbuak a tan sulphur lam chi hman loh

tur, Karathane emaw Bavistin te emaw hman tur a ni. Tin, lei lampang rannungte ven nan Furadon a bul vel ah theh darh a, lei nen rinpawlh tur.

Pangpar

Bougainvillea, Rose leh Midum pangpar (*Hibiscus*) leh a tang phun chi tam zawk te vih phun hun a ni. Kan thil phun te a mawng lampang tan rual a, a chunglam ruah dawngtur lam sahthlau zel bawk tur. A zung a chhuah hma nan root hormones hman a tha. Fur pangpar chi hrang, *Zinnia*, Balsam, Marigold, etc. te a chin theih. Tin, ruah sur nasa laka dah sawnna nei tan thlasik pangpar thenkhat Aster, Petunia, Carnation etc. te a phun theih. Tin, Dipangpar (*Gladiolus*) te a phun chhunzawm theih bawk.

AUGUST

THLAI CHIN LEH PHUN TURTE

Thlasik thlai

Thlasik thlai a bik in Parbawr, Knolkhol, Zikhlem, Radish te kui tiah nan seed bed siam tur a ni. Seed bed te hi a vang metre khat leh a dung metre li vel a siam in ft. 1/2 velin hai pawn tur a ni. Tin, a khuhna turin a chung ft. 4 vel a sangin siam tur a ni. Seed bed lei chu Bawngek lei dur nen ngun taka chehpawlhin hui rual a, thlur neiin thlai chi te chu thlak tur a ni. Hetiang seed bed hi hectare khatah 10 vel a tawk thei. Heng Thlasik thlai kan sawi tak te hi a indawt a deuhva kui tiah a tha.

Carrot

Lei chehdipah bial hrang hrang 4ftx8ft emaw a siamin a chi chu a khat mawi tawkin rual taka a to theih nan lei dip nen chawhpawl in theh turin tiau lei telh tam a tha. A chi te chu karkhat hnu lamah a to a, a len deuh hnuah suat thawl tur a ni.

Zikhlum

A thar rang turin August thla vel atanga kui tan tur. A chi gram 600-750 vel hectare khatah hman tur. Zikhlum lianpui pui te hi ei atan an itawm leh loh avangin ei atana hlum mawi tawk variety thar hma chi bawk si 'Pride of India/ te chin a tha. Zikhlum te hian leitha hectare khata an mamawh zat chu - Urea kg 290, Super phosphate kg 300 leh MOP kg 100 leh ekdur qtls. 200 vel nen chehpawl a, Urea la bang zawng chu phunsawn hnu thla khat velah phul a, lei nen chehpawl leh tur.

Bawkbawn

Seed bed zau zawng 12ftx4ft ah a chi gram 250-300 vel favang thlai turin kuitiah tur. Hei hi thal chawhmeh atan ber a ni. Kui atang thla khat vel hnuah 2 ft - 2 1/2ft danah phunsawn tur a ni. Phunsawn tirh hian tui pek tur a ni. Tin, a par tan hma in DAP, MOP leh Urea chawhpawl a kung atanga inches 4 velah hlaah pek tur.

Ser enkawl hna

Ser kung bulah tui a tlin loh nan a bul vel rihvur tur a ni. Ser rah tlak ven nan leh natna laka veng turin 2, 4-D leh

Bordeux mixture a kah tur. Hnim than duan lai a nih avangin a bul vel ngun taka sam fai a tha in thei kung bulah rannung eichhetur te an awm leh awm loh en zeuh zeuh tur a ni.

Pangpar

Thlasik pangpar chi hrang hrang Cineraria, Antirhinum, Poppy, Petunia, Pansy, Phlox, Aster etc. te kui nan seed bed siam a hun. A par nei duh hma tan phei chuan kui nghal tur a ni. Seed bed siam loh pawhin germination tray-ah emaw, Pot hlai deuh-ah emaw kui mai theih a ni. Amaherawh chu ruah tui a la awm avangin kan pangpar kui te a tawih loh nan a chung zar hliah tur a ni. Tray a kui chuan ruah nan loh turin chawisawn mai tur a ni. Pangpar kui nan hian lei panggai Bawngkek leh Balu lei chawhpawl tur a ni. Lei-ah hian Furadon emaw chawhpawl a tha.

SEPTEMBER**THLAI CHIN LEH PHUN TURTE**

August thla ang bawkin thlasik thlai Zikhlum, Knolkhola, Parbawr, Turnip Radish, Tomato, Carrot leh Purun te chin hun a ni. Tin, dailuah leh chana lam pawh chin tan a hun. Thlasik laia nipui thlai thar duh tan Polythene in In sak tan bawk tur a ni.

Motor Chana

A chinna tur lei nguntak a leh rualin ram hectare khatah heng Fertilizer 25 kgs

Urea, 150 kgs DAP leh 83 MOP leh ranek leh hminhnah tawihte nen leh pawlh tur a ni. Urea pawlh tlem leh DAP tih tam hian thlaiin lei a nitrogen a siam kawngah a pui tha zawk a hriat a ni. Chin hmain zankhuain tuia chiah a, a tuka din in a tiak hma duh. Tin, chintirh hian a theih hram chuna tui pek a tha. Hei hian a tihtiah hma phah dawn a ni. Ram hectare khatah a chi Kg. 100 vel a tawk. Motor chana te hi thlasik vaimim nen a chinpawlchi hle.

Purun Var

Purun var chin nan chuan Balu lei awm deuhna, leihnaung deuh ngun tak a lehphut a tha. Mizoramah chuan September leh October thla chungin chun ngei tur a ni. Lei dip takin inches 4-6 a thukin lehphut a, thilzungawm leh lungte thenfai tur. Tin lei leh laiin hectare khatah 106 kgs Urea, 130 kgs DAP leh 200 kgs MOP bakah hnim tawih leh ran ek te leh pawlh tur a ni. Micro nutrient a bika siamin kah tel tur. Purun var te hi lin zagh veleh tui pek nghal a tha. Tin, a charthat theih nan a hmun hi a tirah tihhawn hram hram tur a ni. A enkawl a awlsam nan seed bed tiat vel (1 metre x 3 metre) bial lek lek a ram thendarh a tha.

Tomato

A kuitiah na tur seed bed chu thlai dang zikhlum te ang bawk a siam tur, lei a ntna hri ven nan Dithane M-45 thirfiante khat tui litre 2 hisapa pawlh a chumi tui chuan seed bed chu kah tur a ni. Lei buatsah laiin ram hectare

khatah Urea 12 kgs, DAP 108.5 kgs, MOP 83.5 kgs. leh bawngek pawlh a, Sevin emaw Furadon emaw rannung chi hrang vual, tlumpi te ven nan theh tel tur a ni. Phuhnu thla khat na leh thla hninhna ah Urea Kg. 27 ve ve in pek leh tur.

Ser enkawl hna

Ser huanah thlasik thlai chinpawlchun a ni. A bikin be lam chi chin pawlh a tha. Thlai chin pawlh dawn chuan leitha pek tam tur. Tin, Ser mit zawm (Budding) tih hun tha ber a ni. Ser rah tla ven nan 2, 4-D a kah chhunzawm tur a ni bawk..

Pangpar

Thla hmasa a pangpar chi hrang hrang kan sawite kuitiah hun a ni. Tin, pangpar tiakte rannungin a tih chhiat loh nan insecticide chi hrang Rogor/Endpsulfan emaw a kah tur a ni. A tiak mai bakah a leipawh kah tel tur a ni. Tin, Rose phunsawn duh tan a khur buatsah tur a ni. Ruah tui a tlem tawh avangin Rose kung a hlawi tan theih, mahse a chunglam in sahthlau tur a ni. Tui a awm that chuan Rose kung hlawina tangte a vih phun theih chuan Rose kung hlawina tangte a vih phun theih a zung chhuah hma nan root hormones (Arodix No. 2) hman tur a ni. August thla a pangpar phun in chawhpawlch nuaih ai chuan a chi hlawm a awmkhawmin a mawi duh. Tin, phun hmain a rawng leh a san dan a zirin ngun tak a phun dan riruat sa vek a tha.

OCTOBER

THLAI CHIN LEH PHUN TUR TE

Thlasik Alu chin a hun a, French Antam, Kauphek, Zikhulum, Knolkhaol, Parbawr leh Turnip te theh tiaka a phun a la hun zel. Tin, Motor chana, Carrot te chin a lo hun bawk.

Thla hmasaa thlai kuitiah sa, Zikhulum, Parbawr, Lettuce te phunsawn a hun. Heng phunsawn tharte hi tui pek ngun an ngai a, enkawl zui zel tur a ni. Tin, rannung ei chhetu laka ven nan thlai tiak leh a bul vel chu rannung thahna hlo a kah tur a ni.

Tomato

A peng a tam lutuk loh nan ven ngun a ngai deuh, a peng thenkhat chu hlawi thlak mai tur. Tin, a kung tan a rih awl avangin a tanpui tur thingtang emaw, mauphel emaw khai a, a chunga zamfir a tha. A kung bulah tui a tling tur a ni lova, thlasik laiin a khat tawk tui pek zeuh zeuh a tawk. Lei hnaih deuhva a peng/chawrte pah zel tur a ni. Phunsawn atang thlakhat velah Urea pek tur a ni. Tin, Borox an tlakchham avangin a rah a piangsual fo. Borrox gm 70 - 90 tui litre 4 a pawlhin thla khat hnu velah kah tur a ni.

Alu

Thlasik Alu chu October thla chhunga lin ngei a tha. A chi hrisel tha, natna vei lo ngei hman tur a ni. Hectare khat atan alu chi qtls. 22.5 vel a ngai a.

A panga bawk leh ser awm tam deuh chu thlan loh a tha. A chi aran Artui ti cel, avang lam hawlh tlanga inches 1 1/2 - 2 vel thlan a, hei hi hmun thmah zai phel ni se. A chi tur zai phel sa chu Dithane M-45 gm tui litre 10 velah pawlh a, minute 10 chhung chuah tur a ni. Hemi hnu hian dailimah ni 2 chhung dah leh a, lin chhuah tur a ni. Lei ngun taka leh rualin heng Ferilizer, Urea 85 Kgs leh Bawngek te lehpawl a tha. Tin, a to kim veleh Dithane Z-78 gm 800 vel tui litre 180 vela chawhpawlhin kah a tha. Aphid laka ven nan Malathion 250 ml tui litre 130 a pawlhin kah tur a ni.

Purun sen

Phunsawn loh tur a nih chuan a chi Kg 16-23 ram hectare khat atan a tawk a, phunsawn tur a nih chuan a chi Kg 5 -7 chin hian ram hectare khata phun tur a daih tawk a ni. A leilung chu tha taka lehphut tur a ni. Leitha a mamawh dan tlangpui chu hectare khat atan DAP 100Kg. Urea 80 Kgs. leh MOP 150 Kgs. a ni. October thla hi a chin hun tha ber a ni. A chi hi tlar inkar 30 cms leh a chi inkar 10-12.5 cm dana chin a tawk. A hmun hi thlawhdai that hle reng tur a ni. Tui pek fo a tha bawk.

Serthlum

Serthlum mit zawm hun tha ber a ni. Tin, a rah tla ven nan 2, 4 -D a kah chhunzawm a tha. A rah tam lutukna kungte chu mau in emaw thingtuai in emaw do tur a ni. A rah ei chhetu Phengphehlep (fruit sucking Moth) leh tho (fruit fly) awm duh lai a ni a hengte

veng tur hian rannung thahna chu Polythene, Dimecron leh Rogor te hman tue.

Pangpar

Thlasik pangpar chi hrang hrangte kui hun a la niin, phunsawn chhunzawm tur a ni. Phunsawn tirhin tui pek ngun a ngai leh zual.

Rose enkawl

Rose tang hlawi a hun ta. A hmasain a tang ro leh hrisel lote pawh phawt a, kum hmsa lama atang tha zual pali/panga vel zuah tur a ni. A mit bul setah hlawi lovin tlem zuah awl tur. Leitha an mamawh hnem em em a, a bikin a tang hlawi zawk hian pek ngei tur a ni. A tang hlawi atanga ni 15-na velah Bawngek leitha leh Rose tan bika siam Rose Mix pek tur a bu, Lei tha pek zawahah tui leih ngei ngei tur a ni.

NOVEMBER

THLAI PHUNSAWN LEH ENKAWL TUR TE

Thlasik thlai chi hrang hrang parbawr, zikhlm, french antam, tomato leh adangte phunsawn theih a la ni. Khawvawh zual hmaa phunsawn fel a tha. Chutilo chu duh angin a thang chak thei lo. Tin, thlei phunsawn tharte tui leih ngun a, rannung leh natnain a bawm leh bawm loh endik zauh zauh a tha. Rannung leh pangang tichhetu laka ven nan Rogor, Nuvon emaw,

Endosulfan-in emaw kah tur a ni. Tinm alu chin tawh leh thil dang motor chana te pawh an bula rih vur zel tur. French antam leh kauphek te thehin a la pawi lem lo.

THLAI VENHIM DAN

Tomato/Bawkbawn leh Hmarcha

- 1) A tiak kar 3-a upa a nihin Dimecron 200 ml tui tin 25-a pawlh in ram hectare khat kah nan hman tur a ni.
- 2) Phun atanga kar hnih hnuah Dithane Z-78 leh Dimecron 200 ml tui tin 25-a pawlhin hectare khat kah nan hman leh tur.
- 3) Phunsawn hun kar 5-ah Dithane Z-78Kg 1,200 leh Dimecron 270ml tui tin 30-a chawhpawlhin hectare khat kah nan hman tur.
- 4) Phunsawn hnu kar 8-ah Dithane Z-78Kg 1.40 Malathion 1.26 litre tui tin 35-ah pawlhin kah leh tur a ni.

Zikhlm, Parbawr Antam chite

- 1) A tiak kar 2-a upa Blitox 150gm leh Rogor ml. 75 tui tin 2 1/2 a pawlhin kah tur.
- 2) A tiak kar 4-a upa Blitox 210gm leh Rogor ml. 110 tui tin 4-a pawlhin kah nan hman tur.
- 3) Phunsawn hun kar 4-ah Blitox gram 150 leh Rogor 750 ml. tui tin 25-a pawlhin ram hectare khat hmun kah nan hman tur.
- 4) Phunsawn hnu kar 4-ah Blitox Kg. 1.8 leh Rogor ml. 900 tui tin 30-a pawlhin kah leh tur.

A chunga damdawi hmang hian a puitlin hma chuan karhnih dan zela kah a tha.

Purun

- 1) A chin atanga kar 3 hnuah Rogor 150 ml leh tui tin 5 pawlha hectare khat hmung kah nan hman tur.
- 2) Kar 6 hnuah rogor ml. 600 leh tui tin 20 inpawlha kah leh tur.
- 3) Kar 9 hnuah Malathion ml 900 tui tin 25 inpawlhin kah a, a tul dan a zirin thla tin kah zui zel a tha.

Pangpar

Thlasik pangpar chi hrang hrangte a par tlai deuh turin a la kui theih, Phunsawn tawh sa te enkawl ngun ngaih lai tak a niin leitha leh ran eka chawm ngun an ngai. Rose tang hlawi theih a ni a, a hlawi dan chu thla hmasaa tih dan tur kan sawi ang khan tih ni se. Tin, lei tha leh bawngek la pe lo chuan a par tam leh len zawk nan pek ngei a tha.

Ser enkawl hna

Serthlum rah a hmin tan tawhin a lawh a hun ta, lawh laiin a zar titliak lo turin fimkhur a tha. Bazara hrallh tur chuan lawh laiin a hnun tih pem loh tur. Chutilo chu a tawih duh. A chi kui duh tan a chi thar lam silfai a thain phoro miah loh loh tur. A chi kui kui tur tan chuan seed bed siam a hun ta. A chi kui tiak tur chuan ser kung hrisel, tam lo, natna vei lo leh a rah tha ber ber kung ami chauh thlan tur a ni. Tin, a mit zawmna rootstock chi kui duh tan pawh seed bed siam a ngai.

DECEMBER

THLAI ENKAWL LEH CHIN TUR TE

Thla hmasa a mi angin thlasik thlai te enkawl zui tur a ni. A bikin Alu leh Tomato te Dithane Z-75 leh Dimecron inpawlha kah tur a ni. Tim Pangang leh rannung dang laka kan thlaite venhim nan malathion-a kah a tha.

Ser enkawl na

Ser rah a hmung tawh avangin a chi kui tiah pawk a hun a. Kui tiahna tur seed bed hetiang hian siam tur a ni. Ser kui tiahna tur chu ft. 1/2 vel a haipawn deuhva ngun taka lehphut tur a ni. A vang lam metre 1 - 1 1/2 leh a dung lam metre 2-3 inkar ni se. Lei ban leh sakhal, tui tlin reng theihna hmung thlan loh tur a ni. Seed bed inkarah tui inpaih chhuahna tur kawng siam tur a ni.

A chi lak

Ser kung hrisel hmung tha leh hrisel tak atangin a chi chu lak tur a ni. Tin, a chi lak thar hi tui thianglimah fai taka sil hnuah tuia rawn lang ser mute chu pah tue a ni. Heng ser mute chu pah tur a ni. Heng ser mute hi 0.1% Mercuric chloride a minute khat lek chiah hnuah tui thianglima silfai leh tur a ni. A chi hi lak hlima chin nghal tur a ni. An nunna an hloh hma avangin tihro loh atha ber. Amaherawhchu ram dang a mi kan lak duhin emaw chin nghal a rem loh emaw chuan, polythene bag hnih inthuah karah ngun taka thun a, Thiram powder emaw phul zawahh phui taka

chih tur a ni. Tin, a dah that nan temperature 5-10°C-ah dah that a tha ber.

A kui tiah

Ser mute damdawia enkawl hnuah seed bed-ah a tlain tuh tur ani. A tlar chu ft. 1/2 vela inblatin siam ni se; tin, a chi chu inches 1/2 vela inhlatin a phum a, lei pan taka khuh leh a tha. A tlangpuin ser chi kui hun hi khawvawh lai a nih avangin Polythene sheet (rawng var chi)-in khuh a tha. Hei hian boruak lumna (Temperature) a tisang a, a tiah hma theih phah a ni.

A kung puitling

Ser rah lawh zawh hlim hian a tangro leh natna vei chi te, a zar lawr bik zualte chu a chehna hmanga tan fai tur a ni. Tin, a kung bul pawh chinai emaw Bordeaux paste emaw hnawih a, a bul vel pawh sam fai tur a ni.

SER EI CHHETU THENKHATTE

1. Citrus Butterfly

A pangang ten Nursery-a ser tiak hlim hnah ro an eichhe thin. A pangangte chu a hring lampang hnah rawng lam an ni a, hmuh mai pawh a har hle. A ven nan Dimecron emaw Rogor emaw a kah tur a ni. Hei bakah hian kan ser tiakte chu ngun taka en fove pangang te kuta thah zel theih chuan nasa takin a ven theih a ni.

2. Citrus leaf miner

Rannung te tak te an ni a, a note chuan ser hnah an hreuh kual a, atui hip chhuakin a hnah a tiro thin. A bikin ser hnah tharah Hnapkhawn vahna niawm takin a tikawi ngiae a, a tikhawr bawk thin. Nursery-a ser hnahah he rannung hi a awm duh hle a, natna chikhat 'Canker' an vei duh phah hle. He rannung venna tur hian damdawi rogor 30EC emaw, Nuvacron emaw 2ml tui litre khata pawlhin kah tur a ni. He damdawi hian a kungpui emaw a tiak emaw kah theih a ni.

3. Borer (A nget)

Hei hian a kung an verh a, a zar no deuh phei chu a zik atangin a ro va, a thi mai thin, he thingnet pangang te hian hmun tam takah ser kung an verh pawp a, a kung leh a pilin a inchawm thin a ni. Hemi enkawl dan chu July thlaah en rawh.

Pangpar

A vawi hnihna atan October thlaa Rose kan sawisak (tanghlawi) te kha fertilizer (Rose mix) leh Bawngek pek leh tur a ni. Tin, Multiplex (Rose tana siam) tui nen dal taka pawlha a kung kah nan hman tur.

KEIMAHNI

I. Transfer & Posting

Sl. No	Name & Designation	Present place of posting	New Place of posting
1.	Pu H.S Zosanglura, Superintendent	Directorate of Horticulture	Directorate of Industries
2.	Pi F. Lalrintluangi, Superintendent	Directorate of Labour & Employment and IT Department	Directorate of Horticulture
3.	Pu C. Lalrinawma, HEO	RD Department	Directorate of Horticulture
4.	Pu Willy F. Laldingliana, HEO	RD Department	Directorate of Horticulture
5.	Pu Chawngkhuma, HEO	Thingsulthliah Sub-Circle	DHO, Aizawl Division
6.	Pu C. Lalnunmawia, H.D	S. Vanlaphai Circle	DHO, Lunglei Division
7.	Pu C. Laldinthanga, H.D	DHO, Lunglei Division	S. Vanlaiphai Circle
8.	Pi H. Laldinpui, LDC	DHO, Khawzawl Division	DHO, Aizawl Division

II. Promotion

Heng mite hi UDC Departmental Examination-ah an kaisang a, kan lawmpui hle.

Sl. No	Name & Designation	Promoted to	New Place of posting
1.	Pi V. Zahmingthangi, H.A	Superintendent	Food & Civil Supply Department
2.	Pi Lalhmachhuani, LDC	UDC	Khawzawl Division
3.	Pi F. Lalsangpui, LDC	UDC	Rawpuichhip Sub-Division
4.	Pi Lalngaisangi, LDC	UDC	Directorate of Horticulture
5.	Pi Zoram siami, LDC	UDC	Tuidam Division

III. Pension

Sl. No.	Name	Designation	Date of Retirement
1.	B. Thanhawla	HEO, Serchhip Division	31.3.2012
2.	Lalnunluanga	Peon, Aizawl Division	31.1.2012
3.	Lalthankima	Peon, Kolasib Division	31.1.2012
4.	Pi Zakhumi	Peon, Directorate of Horticulture	29.2.2012

Heng kan thawhpui mi duhawm tak tak ten Pathian malsawmna dawngin pension thleng a ram leh Department tan an thawk thei hi kan lawmpuiin an hun lo kal leh zel turah duhsakna kan hlan.

- IV.** Ni 30th December, 2011 khan Integrated HI-Tech Green House (Argos Agri. Project Ltd., Israel) Horticulture Centre, Thiak a mi chu Pu Vanhela Pachuau, Chief Secretary, Govt. of Mizoram in a hawng.
- V.** Ni 8th February, 2012 khan Awareness Programme on Coconut chu Coconut Development Board, Guwahati ten Horticulture Conference Hall-ah an rawn nei a. He training-ah hian Kolasib District, Mamit District leh Lunglei District atangin Coconut ching tute an rawn kal tha hle.
- VI.** Agri. Horti Society India buatsaihin Dt. 9th - 12th February, 2012 khan Annual Flower Show, Kolkata-ah neih a ni a, hetah hian Zo-Anthurium Growers Society te Horticulture Department sponsor in tirh an ni a. Anthurium leh Rose te entir a ni. Anthurium bikah 1st Prize an la a, a pumpuiah Merit Certificate an rawn hawn bawk.
- VII.** Training on Organic Farming in Horticulture Crops chu February ni 14-15, 2012 khan Horticulture Conference Hall-ah neih a ni. He training-ah hian CISH, Lucknow atangin mithiam then training hi an rawn neihpui.
- VIII.** Excellence Award to Mizoram for 'Excellence in Infrastructure for Disease free Production' chu Dt. 18th February, 2012 khan Ashok Hotel-ah Pu Sharad Pawar, Union Minister of Agriculture & Food Processing industries in Mizoram Horticulture Department Director hnenah a hlan. National Horticulture Conference a hmanpui na-ah Minister chuan kum 2012 - 2013 chu Year of Horticulture-ah a puang a, India ramah a vawikhatna atana Mizoram in he lawmman a dawng hmasa ber chu a lawmpui thu a hrilh. Horticulture thlai hrang hrang- fruits, vegetable, spices, flowers, plantation crops etc. tam tak thar chhuak tur leh International Market-a inpho chhuak tur chuan a hun taka thlai phun/chin tur tha a pawimawh thu Minister hian a sawi bawk. Year of Horticulture (2012-2013) chung hian State titha ber hnenah lawmman Rs. 2.0 crore keng tel siam anih tur thu a puang bawk. He Conference ah hian Union Minister bakah Minister of State for Agriculture Shri Harish Rawat leh Secretary Shri P.K Basu leh Ministry a mi pawimawh zawng zawng bakah India ram puma State Department hotute an tel kim hle. Hetiang lawmman India ram pum huap a pakhatna Mizoram Horticulture Department-in a dawn theihna hi Department hotute thawhrimna rah a ni.

- IX.** 7th International Flora Expo 2012 & 4th International Horti Expo 2012 chu Dt. 3rd - 5th March, 2012 khan NSIC Complex, Okhla, New Delhi ah neih a ni a. Hetah hian Horticulture Department chu tel ve in Excellent Display Award an rawn hawn.
- X.** Ni 14th-16th March, 2012 khan NRCC, Nagpur atangin Scientist pathum an lo kal a, hemi te hian Production Technology on Citrus for NEH Region ah Training rawn pe in field visit neih nghal a ni a, Mizoram hmun hrang hrang a Ser ching tu te tel tha in hawlk thlak an ti hle.
- XI.** Horticulture Department chuan Conference Hall thar changtlung tak kan nei ta a, Hall hman man hi hetiang hian bituk a ni.
- 1) Conference Hall-ah hian mi 150 a that theih a, stage-ah pali a that theih.
 - 2) Conference hall hmang tur chuan an hman duh hun ni nga (5) hma in Director of Horticulture-ah an thehlut tur a ni. Dilna Form hi Office-ah lam theih a ni.
 - 3) Ni khat/tum khat hman man :

a) Conference Hall chauh	₹ 3,000
b) Sound system hman man.....	₹ 1,000
c) Air condition hman man	₹ 1,000
d) Projector hman man	₹ 1,000
e) Operator charge	₹ 5,00
A vaiin	₹ 6500
- Note: Projector leh Sound System te midang khawih phal a ni lo.*
- 4) Ni khat chhunga hman theih hun chhung
 - a. Nipui lai (March-September) — 9:00am - 5:00pm
 - b. Thlasik lai (October - February) — 9:30am - 4:00pm
 - c. Hman theih hun chhung bithliah bak hman a nih chuan Hall Incharge/ Duty hnenah a hmangtuten Overtime charge (₹ 100 per hour) pek tur a ni.
 - d. Sorkar chawlh ni-ah Hall hman theih a ni lo.
 - 5) Conference Hall hmangtuten hman man advance-in Director of Horticulture-ah pek tur a ni.
 - 6) Official-a hman a nih pawhin VIP/ VVIP Programme a awm chuan chawp leh chilha Booking Cancel theih a ni ang.
 - 7) Conference Hall thutthleng, dawhkan leh hmanrua te dim taka hman tur a ni a, tihchhiat emaw bo emaw a awm chuan a hmangtuten a thar man an chawi tur a ni. Repair ngai/ theih a nih chuan a repair man an chawi ang.
 - 8) Conference Hall ah hian thutna awmsa bak lakluh belh phal a ni lo. Tul bik thilah erawh chuan Director of Horticulture hnenah phalna lak hmasak tur a ni.
 - 9) Conference Hall chhungah hian ei leh in sem phal a ni lova, a bula hmun ruat bik chauh hman tur a ni.
 - 10) Conference Hall hmangtuten an thil eina hnuhma an tifai nghal zel tur a ni.
 - 11) Conference Hall hman man bithliah hi a tul hunah Department in a revise leh thin ang.

Obituary



PU ZAITHANMAWIA
H/D
Lungdai Circle
Aizawl Division
Thih ni - 29.12.2011



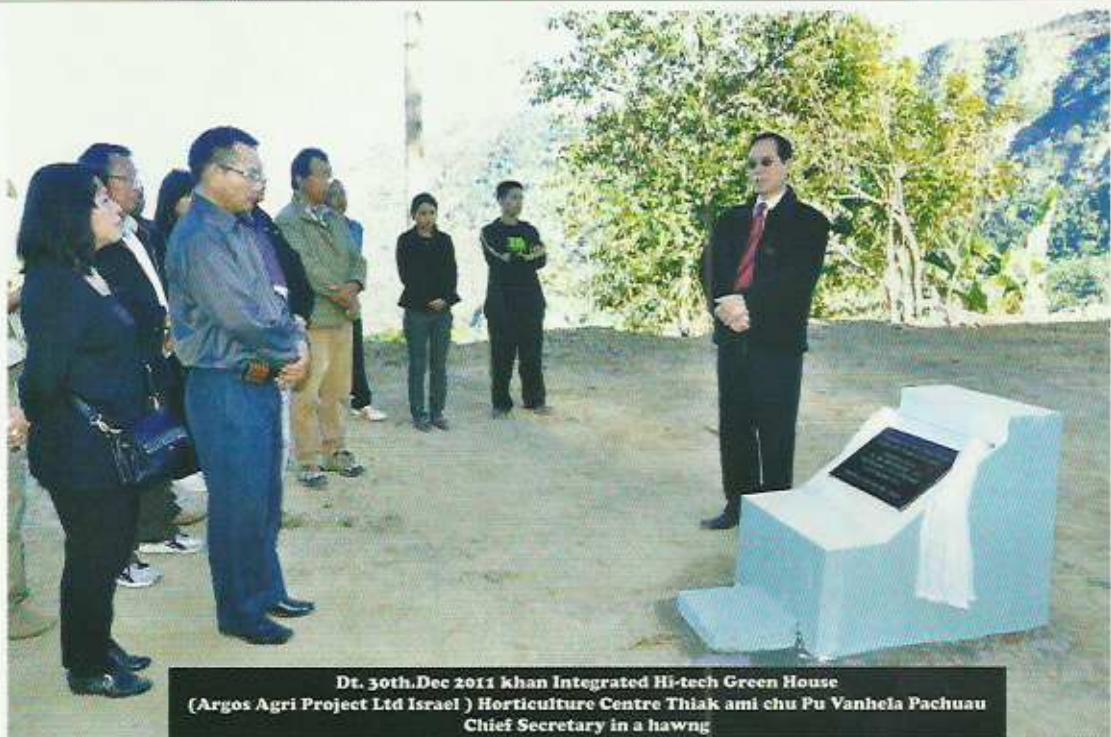
PU LALREMRUATA SAILO
HEO
Darlawn Circle
Aizawl Division
Thih ni - 22.2.2012

*Department of Horticulture-ah kum rei tak an thawh hnuah
min lo boralsan ta a.
Kan thawhpui duh takten hun lo taka min lo boralsan hi
Department of Horticulture tan
channa nasa tak niin kan ui tak zet a ni.*

*An kalsan tâk an chhungte
PATHIANIN thlamuanin awmpui zel se
tih hi kan ̄awngtaina a ni.*



**DEPARTMENT OF HORTICULTURE
MIZORAM**



Dt. 30th Dec 2011 khan Integrated Hi-tech Green House
(Argos Agri Project Ltd Israel) Horticulture Centre Thiak ami chu Pu Vanhela Pachuau
Chief Secretary in a hawng



Dt. 18th Feb 2012 khan Ashok Hotel ah Pu Samuel Rosanglura Director of Horticulture
chuan Excellence Award to Mizoram for 'Excellence in Infrastructure for Disease Free Production'
lawmman a Shri Sarat Pawar Union Minister of Agriculture hnen atangin a dawng.



Awarness Programme on Coconut chu Coconut Development Board,
Guwahati ten Horticulture Conference Hall, Aizawl ah coconut
chingtu te tan training an rawn pe.



7th International Flora Expo 2012 & 4th International Horti Expo 2012 chu
Dt.3-5 March 2012 NSIC Complex OAkla New Delhi ah neih a ni a. Hetah hian Mizoram
Horticulture Department pawh a tel ve.