

KRISHI VIGYAN KENDRA

Lawngtlai District : Mizoram

KHUAI KHAWI LEH A PAWIMAWHNATE

(Importance of Beekeeping)



Compiled by
C.Rualthankhuma, SMS(Agronomy)
KVK, Lawngtlai, Lawngtlai District

Email:kvklawngtlai@gmail.com, website: kvklawngtlai.mizoram.gov.in

Khawvel ram hrang hrangah khuai khawi hi a lar tawh em em a, achhan chu khuai te hian khuaizu, khuaihnnun leh adangte min pek vang leh Agriculture lamah an thawhhlawk em avangin a ni. China leh USA te hi khuaizu thar tam ram an ni a, India ram hi 5na a ni. India ram hian kumtin khuaizu ton 70,000 vel a thar a, ton 25-27,000 vel a thawn chhuak a, Punjab, Haryana, UP, Bihar te hi India ram a khuaizu thar tam state te an ni.

Mizoram ah hian thing leh hnim, thlai par chi hrang hrang a tam hle mai a, tin, mitin enkawl theih, In leh Ram nei lo tan pawh sum siam theihna tha leh awlsam tak a ni. Chuvangin khuai khawi dan leh mihringte tana an pawimawhna hi mitinin abikin, loneitute hian hrechiang thei sela, tunai hian kan hlawkpui ngei dawn a ni.

Khuai hnathawh leh an tangkaina te

Pangpar bawm chi khuai te hi hnathawk reng, taima em em mai an ni a, pangparzu (nectar) leh pangpar me (pollen) te hi an chaw anih avangin chaw zawngin partin an lawr kual a, khuaizu leh a bal kan tih hi an siam ta thin a ni. Tin, khuaihnunte, Royal jelly leh khuai tur (venom) te pawh hi an tangkaina hriat belh zel a ni.

Khuai te hi thing leh thlai par bawm thin an nihna hi an pawimawhna lai tak a ni a, hei hi thei leh thlai chi in siam nan (inthlahpawlh nan) thil tangkai tak a ni. Thli, rannung leh thil dang, mihring vang pawhin thlai chi a inthlahpawlh thin a, 50% aia tam daih hi rannung vang a ni a, rannung zingah hian 80% hi khuai an ni. Pangpar ah hian a nu leh a pa chi a awm a, inthlahpawlh (cross pollinate) angai thin a, anih loh chuan rah insiam thei lovin thei leh thlai par te hi an til leh mai thin a ni.

Khuai hnathawh an zir chianna ah chuan khuai hnathawh vang hian thlai chi leh thei rah a thar hnem phah hle a, a quality pawh a tha bik a ni. Nihawi (sunflower) ah phei chuan hriak a pai tam phah hle tih hmuhchhuah a ni. Thei chi hrang hrang, chawhmeh thlai leh hriakpai thlai kan tih te hian nasa takin khuai hnathawh hi an hlawkpui ngei tih hriat chhuah a ni tawh bawk.

Khuai te hian hmul an ngah hle a, pangpar me an kai awlsam bik a, tin, pangpar an bawm hian a par an tichhe ve ngai lova, khuai note leh a pui te hian parzu leh par me te hi kumtluan in chaw ah an ring a, tin, an pianphung hi par chi hrang lian leh te bawm thei tur a siam an nih avangin thlai inthlahpawlh tirtu tha ber an lo ni.

Khuai chanchin

India ram ah hian khuai zu nei chi hi chi nga a awm a, chungte chu -

1. The Rock bee, *Apis dorsata* (undomesticated) - khamkhuai
2. The Indian hive bee, *Apis cerana* (domesticated) - khuaivah
3. The European or Italian bee, *Apis mellifera* (domesticated)
4. The Little bee, *Apis florea* (semi domesticated)
5. Dammer bee or Stingless bee, *Mellipona irridipennis* (domesticated) - khuaite

Khuai khawi chi ah chuan European bee hi a zu a hlawk ber a, mahse khuaivah leh khuaite hi heng lai a kan hmuh theih ah chuan kan hriat lar ber leh kan ram khuai tha ber te an ni. Khuai zu nei chi bu tin ah hian Queen (a lalnu), Drone (a vahvawm) leh worker (hnathawktu) an awm zel a, an hnathawh theuh te chu-

1. Queen (a lalnu) - Khuai lalnu hi bu khat ah pakhat zel an awm a, khuai zawng zawngte NU a ni a, atul dan azirin ni 1 ah tui 1000 chuang a tui thei a, a upat dan azirin a tui tlem tial tial a, kum 3 chhung vel an dam ve a ni. A lalnu hian mi an zuk ve thei a, mahse, mi a zuk ngai meuh lo ani. A dam chhungin vawi 1 chauh khuai pa (vahvawm) in a pawl a, boruakah an in pawl thin a, a pa a thi nghal thin ani. A lalnu thar cell hi

Khuai te hi chaw tam dan azirin hactare 1 ah bu 3-9 lai an dah thin a, thlai chin nasatna hmun ah phei chuan (entir nan tel antam hmun zau tak ah te) thlai par tlan tur tam lai in thlai hmun ah an hung thluah thin a ni. Tichuan khuai ten awlsam takin parzu an thiar lut zung zung a, thlai rah leh thei rah te a thar hlawk phah mai bakah loneitu ten khuaizu an thar tam phah avangin a tangkai em em a ni.

Atlang kawmna

Aw le, Mizoram mai bakah india ram pum ang pawh hian khuaizu hi kan la ei tlem em em a, ram pum ang chuan kum khat ah mi 1 in gram 25 vel chauh ei ang kan ni a, Switzerland ah chuan mi 1 in kum 1 ah kg 1.5 ang zel an ei a, America ah pawh kg 1 ang vel mi 1 in an ei a, tin, France, Japan, England ah te pawh gram 250 mi 1 in an ei pha a ni. India ramah chuan damdawi atan chauh kan la hmang a, chaw tha a nihna hi kan la hmang tangkai lo hle a ni.

Khuai chanchin leh mihring tana an tangkaina te sawisen a ni lo ang a, engpawhnise, side income tha tak siamna a nih mai bakah, kan thei leh thlai tan a tha si a, tin, mizo te thawh chi, thil harsa lo tak a ni bawk. Khuai khawi hi eizawn nan a hman tlak a ni a, amaherawhchu hlawhtlinpui tak tak tur chuan training tha tak kan neih hmasak a ngai a ni. Tin, serthlum huan ah te leh kan ram huan zau takah te hian hlawhtling taka khawi theih a ni a, khuaizu

duh lo leh ngaina lo kan awm lo a, mi hawi zau zawk apiang ten a that zia an hria a, awlsam taka hralh theih a ni bawk. khuaizu kan thar tam chuan mi tam zawkin kan ei tam phah ang a, kan lo hrisel sawt ang a, tin, kan thei leh thlai te an lo thar hlawk ang a, chu ngei chu ram hmasawna bul a lo ni dawn a ni. Chuvangin keimahni leh tu leh fa te an lo hrisel zawk nan khuai khawi hi i uar deuh deuh ang u, kan ram leh hnam tan a ni si a.

khat nei ah an hung thin a, cement hmangin leihrolah tui tling theiin an siam a, fanghmir tamna hmunah chuan a tangkai thei hle a ni.

Tin, khuai te hi a bu tha bik an awm a, azu ngah bik leh taima bik an awm ve tih kan hriat a tha a, awm pawlh tir a, siam that dan a awm tih pawh kan hriat a tha awm e.

Thlasik lai tih loh ah chuan abikin khuaivah te hian beitu an ngah khawp mai a, khuaibel te, nghalpu ten an run thin bawk a, a ven dan vak a awm lova, a vuakthlakna tha tak siam tur a ni mai. Queen gate dahsak a ngaihsak reng an ngai a ni. Tin, khuai rawn bei thintu khuaibel leh adangte awmna kha hriat theih chuan abu chawp in tihchhiatsak vek ila an rem duh khawp mai.

Khuai te hian kumtluanin chaw an hnianghnar reng bik lova, chaw van hun atan an dah khawl thin a, keinin kan lo lak sak ta thin a ni. Chuvangin chaw siam chawp, chini leh tui a inzat a chhuanso, dahdaih chu heng hun lai hian chhawp sak thin tur a ni a, tin, khawlum laia tui thianghlim chhawp sak thin hi a tha bawk a, bawm chung lum lutuk tih daih nan tui an mamawh ve thin a ni.

Khuai tangkaipuitu thlaite

Kan Thei kung leh Thlai tam tak te hian an lo rah hlawk zawk nan leh chi tha insiam nan khuai an hmang tangkai hle a, chung thei leh thlai thenkhat te chu -

1. Thei lam chi ah : serthlum, apple, strawberry, plum, theitehmul, pear thei, cherry, walnut, ser chi zawng zawng, kiwi, jamun, theifeihmung, dawnfawh, etc.
2. Vegetables ah : zikhlum, parbawr, carrot, fanghma, purun, mai, um-ei, buluih, turnip leh adangte.
3. Hriak pai thlai ah : tel antam chi hrang hrang, nihawi, safflower leh adangte.

adang ang lo takin a thlar hnuai lamah pencil tiat velin a uai thla ngauh bik thin.

2.Worker (hnathawktu) - worker te hi hna zawng zawng thawktu leh venghimtu, engkim a mawhphurtu an ni. A nu vek an ni a mahse, a lalnu angin an tui ve thei lo a, mi an zuk thei a, chawlhkar 6 vel an dam ve thei a ni. Worker te hian atir lamah chuan Inlam hna an thawk phawt a, a note chaw pek te, a thlar siam te, Royal jelly siam te, a lalnu chaw pek te leh venhim hna te an thawk a, a hnu ah chuan ram lam ah chaw an zawng a, pangpar zu lakhawmtu ah te an tang leh thin a ni. Khuai bu 1 ah sang tam tak an awm thei a, worker cell hi an keu hma chuan mam nalh takin a inchhin thlap thin a ni.

3.Drone (vahvawm) - a vahvawm kan tih hi khuai pa, a lalnu piang thar pawl tur chauh a lo piang an ni a, hna an thawk ve thei lova, khuaibu temperature erawh an thunun pui ve a hriat a ni. A vahvawm pakhat hi worker 3-6 laiin an chawm rawn a, lalnu thar pian lai chauhin an awm ve a, an pianna cell hi worker cell ang tho a ni a, mahse a pawng bik a ni. A vahvawmte hi an mamawh loh chin ah chuan riltam a thi turin an hnawtchhuak thin a, thlahnih lai an dam ve thei a ni.

Khuai nungchang te hi hriat chian a pawimawh hle a, an population a lo tam chinah chuan vahvawm an lo lang a, a lalnu thar a piang thin. Tichuan, a hun takah an indang leh thin a ni. Tin,

chaw tlem vang emaw, khuai bu hrisel loh vangin an rau ve thin tih kan hriat a tha a ni.

Khuai thilthlawn pek chu

Khuai te hian pangparzu leh thil dang an lakkhawm te chu a thlar ah an chhekkhawm thin a, hengte hi kan tana thil tangkai zawk siam nan leh damdawi siam nan te a hman theih a, sum lakluhna tha tak a tling tawh a ni. Chungte chu -

1.Khuaizu (honey) - Khuai kan khawi chhan ber chu khuaizu kan duh vang a ni a, pangparzu kha khuaizu ah an siam danglam thin a ni. Khuaizu hi chaw tha a ni a, bawngnhnute nen a ei pawlh pheh chuan chaw tha ber ah an ngai hial a, ram changkang ah chuan chaw pawimawh zingah an telh hial a, an ei nasa em em a ni. Damdawi atan leh industry lamah an hmang nasa bawk. Khuaivah bik ah hian bu 1 ah kg 5-10 thleng kum 1 chhungin a lak ve theih a ni.

2.Khawihnun (bee wax) - hei hi worker ho siam a ni a, khawihnun atang hian thil tangkai tak tak chi hrang 300 lai siamchhuah a ni a, candle te, damdawi siam nan te, rawng leh varnish siam nan te leh a dang tam tak siam nan an hmang a ni.

3.Royal jelly - Hei pawh hi worker (nursing bee) siam a ni a, a note, queen thar tur note leh a lalnu chawm nan an hmang a, tin, mihring tan pawh damdawi tha siam nan leh chaw tha bik siam nan an hmang a ni.

4.Pollen (a bal) - worker lakkhawm pangpar me atanga siam a ni a, khuai chaw pawimawh tak a ni. Pollen hi damdawi atan te,

cosmetic leh protein pai tam chaw tha siam nan te an hmang bawk a ni.

5.Bee venom - hei hi khuai ralthuam tha ber, an hmelma leh tibuitute laka an in ven ve na a ni a, min zuk chang pawh a na kan tih chhan ber kha a ni. Khuai tur pawh hi damdawi atan a hman theih a, mit (eye) lam natna leh Vun natna enkawl nan te a hman theih a ni.

Khuai bawm leh hmanrua dangte

Hlawk zawk a khuai khawi tur chuan mithiamte hmuhchhuah sa khuaibawm ang ngei hi hman a ngai a, bawm ruak a thun tawp chuan a zu lak hunah a thlar tih chhiat vek a ngai thin a, tin, khuaizu pawh a thianghlim tak tak thei lova, khuai an rau duh hle bawk a ni.

Department siam khuaibawm hi kum 1910 vel khan India ram ah Rev. Newton an a hmuchhuak a, a thlar insiamna tur Frame laksawn theihin a lo duang daih tawh a ni. Chuvangin Newton bee hive an lo ti nghe nghe a, a thil hmuhchhuah hian nasa takin khuai khawi lam ah hmasawna a thlen a, kum 1938-39 ah All India Beekeepers' Association (AIBA) a lo ding ta a, India independent hnu ah chuan KVIC in nasa takin a buaipui ta a ni.

Khuaibawm hi a chhawng a ni a, a frame te hi pencil leng a inhnaih in ngil tak a rem tur a ni a, bawm hnuai zawk hi brood chamber an ti a, a note leh a lalnu awmna tur a ni a, an inthlah punna hmunpui ber a ni. Bawmhnuai ah an khat hun ah bawm chung dah leh chauh tur a ni a, a chung hi super chamber an ti a, achung ah hian a zu hlang an dah thin a, bawm chung ami chauh hi khuaizu lak tur a ni a, a hnuai ami hi lak miah loh tur a ni.

Kum 1 chhungin khuaizu hi tum 2 (Oct-Nov leh Mar-Apr.) a lak theih ve thin a ni.

Khuai khawina hmanrua chi hrang hrang a awm ve a, a lar zual te chu - queen gate, smoker, bee veil, swarm trap, hand gloves, honey extractor, bee brush te an ni a, khuaizu sawrna (honey extractor) hman dawn chuan Department Bawm siam ngei hi hman a ngai a, a frame len zawng a inmil sa thlap vang a ni a. Khuaizu sawrna hian a thlar tichhe miah lovin khuaizu a vaichhuak vek a, a thlar thar siam buai leh ngai lovin, an dah khat leh zung zung mai thin a ni.

Khuai enkawl dan

Khuai kan khawi dawn anih chuan khuai chanchin te, an chaw duh zawng te leh harsatna awm thei zawng zawng te, harsatna sutkian dan tur te kan hre hle tur a ni a, training tha tak neih hmasak a tangkai hle dawn a nih chu. Khuai te hi an awmna atanga km 1-2 bial chhung hi an chaw zawnga a ni a, khuai duhzawng thing leh thlai dang par duh tak, kumtluan a par thei atam thei ang ber kan phun a tangkai hle dawn a ni.

Ran leh thlai te ang thovin khuai te hian enkawl an mamawh ve a, khuaizu rim hian rannung dang a ko duh hle mai a, chuvangin a khat tawk a endik fo an ngai ve a ni. Bawm chhuat leh a chhung tihfai te, chukchu, maimawm leh rannung dang tibuaitu awm thei laka an him theih nan a endik thin te hi hlawhtlinna bul pawimawh tak a ni. Khuai bawm hi ban