

GRAPE CHIN LEH ENKAWL DAN



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GRAPE

Family	:	Vitaceae
Botanical name	:	<i>Vitis vinifera</i>
A tobul	:	Armenia

A boruak ngeihzawng, sik leh sa leh lei :

Boruak lum, ro leh ruahtui tlemna hmu ah a tha duh hle a.. Hmun hnawng lutuk leh ruah tui tam lutukna hmunah a tha thei lo. Hmun ,lum leh hnawngah chuan a thang duh hle a, a rah erawh a hmin tha duh loin rannung leh natna ten a duh bik bawh thin.. A Hmun san dan a zirin a rah pawh a thlumlo tial tial thin Thlasik boruakah a hnah a tlakawlh in, nipuih hnah thar a rawn chhuah leh thin. A par hun lai ruah a sur nasat chuan Downey Mildew ten apar a tichhe nasa thei hle a, arah hunlai a a sur erawh chuan a rah a keh in a tawih nasa duh hle bawh.

Grape hian zung tha tak mai a neih avangin eng leiah pawh a chin theih deuh vek a, mahse tui thlithul tha leh leidur thatna hmunah a tha duh ber. Tlaklei khal lutuk leh tuidul lutuk hmunte, ni eng hmuh thatlohna hmun leh lei pan lutukah te chin loh a tha. Lei thur leh al tehna 5.5-7.5pH ah hian a him tawh a ngaih a ni a chinai pek tam lutuk a ngeih lo bawh.

Grape chi hrang (varieties) te :

Coloured seeded - Bangalore Blue, Gulabi (muscat).

Coloured seedless - Beauty Seedless, Sharad Seedless

White seeded - Anab-e- Shahi, Dilkhush

White seedless - Perlette, Pusa Seedless, Thompson seedless, etc.

Tun dinhmunah chuan Thompson seedless hi india ram a an phun lar ber a ni.

A chinpun dan:

A tlangpuiin atang vih nun hi a chi siam dan hman lar ber a ni. A tang 25-30 cm a sei, mit pali tal nei, pencil tiat vel, kum khat tala upa a ni tur a ni. A bul lam a mit hnuai chiah leh a ler lamah amit chung 2cm velah tan chhum tur a ni. Tichuan, nursery bed ah emaw poly bag ah emaw a mit pakhat langa vih phun tur a ni. A vih phunna lei hian bawngkek leitha leh balu lei thahnem tham tak chawhpawlh tur a ni. Tlumpi laka ven nan Chlorpyriphos emaw Furadan emaw tlem telh bawk tur. A chung zar sak ngei bawk tur ni a, tui tlem te te a pek reng bawk tur a ni. A tang lak hun atan October thla vel a tha ber. Kawlawm(layering) leh a mit zawm atang te pawhin a tihpun theih. A tang phun ni atang a thla li atanga thla sawmpahnih velah phun sawn theih.

A phun dan :

Tlangramah chuan Contour system hman ngei a tha. Tin, halfmoon terrace siam hian lei tha kal ral tur a veng bawk. A phun hun hi June thla a ni a tin, a kar hlat lam hi a thlur leh a thlur 3m, a kung inkar 3m vel tal ni thei se, a khur (90cm x 90cm x 90cm) tala lian a laih a tha, khur hi phun hma thla 3 vel tal a laih lawk nise, theih phei chuan kum khat tal a lo laih lawk pawh a tha, khur a muk tha duha, khur muklo ah chuan an than a thu thei a ni. Khur chu lei chung lang hangtha leh bawngkelei tha taka chawhpawlha hnawh thin tur. 1kg Super Phosphate, 500g Sulphate of Potash leh 30g Carbaryl chu khurah lei nena pawlh bawk tur.

Training:

Pandal, kniffin leh head system te hi hman tlangpui a ni a. **Pandal system** hi Grape thang duh chi tak tan atangkai a, peng hmun tam takah a chhuah theiin a zam duai theia, thirzai zam kalh nukin 2-2.5 meter vela sang a do kan tur a ni. **Kniffin system** hi variety tlema thangmawh tan atangkai a, tah hian Grape chu 5-6 feet vela sang a train thin tur a ni. Wire pahnih a phei zawng a zamin, 32 inches (3ft) a hnuai lam zawk ni se, leia tangin a chung zawk 60 inches (5ft) velah. Grape hruiin wire hmasa zawk a thlenin a tang tan tur, a rawn chawr leh atangin atang tha pathum zuah tur, atang pahnih chu wire hmasa zawkah zam tirin, pathum na chu wire sang zawk thleng zuah a, wire chung zawk athlen hunah atang thar chhuah tura tan chhum leh tur.

Lei tha mamawh zat:

Kum zat	Urea (g)	DAP (g)	MOP (g)	FYM(kg)
1 year	100	50	150	20
2 year	300	400	400	30
3 year	700	700	1000	50
4 year	700	700	1000	50

Leitha hi a kung atangin 45-60cm a hla-ah pek thin tur a ni a, 15cm vela thuk rinkual a, nipui laiin pek thin tur a ni a, pek zawh veleh ruah a sur lo anih chuan tui pek thin thur..

Tui pek :

A thar tam lam hi tui pek thatah a innghat hle. A zung athuk vak loh a chuvangin tui tam lutuk lo, mahse zing siin pek thin tur. Arah thar laiin tui an mamawh tam hle, ruah a tla khat deuh a nih chuan tui pek ngei ngei tur a ni. Arah hmin hma thla khat vela tui pek tlem hian a rah quality a ti tha in a rah hmin a ti chak. Amaherawh chu lei aro lutuk chuan arah a tla thei bawh.

A tang hlawi :

A tang hlawi hian arah tam leh that lam a hril a. Grape hi arah zawh, ahnah tlak kawlh lai chauha hlawi thin tur a ni. Hlawi dan a dik chuan arah teuh thei a, hlawi dik loh chuan arah miah lo thei bawh. Kum tinin a mit pathuma chauh atang tinah zuah thin tur a ni. A tang kumina rah kha nakumah arah tawh dawn loh avangin hlawi a pawimawh hle a ni. A mit pathum kan zuah atang khan tang thar a in siama chu chuan rah a rawn chhuah leh dawn a ni. Chuvangin hlawia hunah ui miah lo a hlawi mai thin a tha, arah zawhah ui miah lovin paih/hlawi thin tur.



A seng :

Grape chu a hmin that hunah seng tur a ni a, seng hnuah a hmin belh dawn tawh loh avangin akungah a hmin tha tur a ni. A thar tam zawng chu a chi hrang a zirin a in ang lo.

Bangalore Blue: 20,000kg /hactare

Thompson Seedless: 48,000kgt/hactare

Anab -e-Shahi: 92,000kg/hactare

Grading:

Grading hi a size a zirte, athlum dan a zirte leh a pawnlam landan a zirte a thliar thin a ni.

Packaging:

Khawchunga hralh atan chuan Bawmrangah/pate-ah pawh a dah theih a, bawm chhungah paper chhia emaw Grape hnah ro emaw dah a tha. Hei hian Grape rah hmelmhem tur veng. Hmun hla zawka thawn tur a nih chuan thing hmangin thingrem (wooden box) siam a, tah chuan paper emaw, buhpawl emaw dah thin tur. A tlangpuiin Grape kg 6-8 vel leng thei ni se. Hmun changkang zawkah chuan Cold storage-ah te an dah a, an lawh zawh atangin grape chu 0-1⁰C temperature, 90-95% Rh velah hun engemaw chen a dahthat theih.

Grape tui siam dan (for commercial) :**Mamawh te :**

- | | | |
|----------|---|--------------|
| 1. Grape | - | 1 kg |
| 2. KMS | - | 3 gms |
| 3. Chini | - | A thlum tawk |

A siam dan :

1. Grape chu silfai a, a mu paih a, a tui sawr tur. Chumi hnuah muslin cloth (puanvar thianghlim) emaw thingpuiife thlitna hmanga thlit fim tur (juicer hmang pawn a tui a sawr theih).
2. KMS leh chini chu telh a, uluk taka chawhpawlh tur a ni a, bur thianghlimah boruak lut thei lo a chhin phui flat tur a ni. Hetiang hian rei tak a vawn that theih a, sumdawn nan pawh a hman theih a ni.

Grape ro siam dan (raisin)

Mamawh te :

1. Grape - 1 kg
2. Tui - 1 litre(chini tui siam nan)
3. Chini - ½ kg

A siam dan :

Grape chu silfai a, phela, amu nei chi ah chuan sil fai hnuah amu pah tur a ni. Chumi hnuah rei vak lo chini tui ah chia a, lak chhuah hnuah nisa ah pho ro tur. A tlangpuiin nisaah kar hnih vel pho a mamawh a. A la ro that loh chuan a ro hma zawng pho tur (hmun changkang zawkah chuan a tih ro na khawl an hmang thin).

Rannung ven leh enkawl dan

1. Flea beetles

Hei hian a mit chawr tur a ti chhia a, a chawr thei lo thin . hlawizawh ah a mit rawn chawr tur a ei bawk thin.



A ven dan :

32 gm Carbaryl emaw 24-32 ml malathion / chlorpyrifos tui litre 16 (Sprayer bur khat) pawlha zingah emaw tlaiah a mit chawr tirh lain kah tur a ni.

2. Thrips:

Hei hian a par leh a rah tan tir te a ti chhia in, a tui hnung a hip thin. Arah tan tir ah ruh deuh lo om, a rah a lo puitlinin a lo uk a, Khir ang tak a lo awm thin



A vendan :

- A kung bul hnim vel chu fai taka thlawh thin tur ani.
- Malathion / Phosphamidon /Rogor /Monocrotophos 24-32 ml tui litre 16 ah pawlh a, a par hma leh a rah hnuah kah tur ani.

3. Mealy Bugs:

Mealy bugs hi india rama Grape eichhe tu langsar ber a ni. Anote leh puitling in a tang no deuh atangin a tuihnang an hip a, chu chuan atang pian ati danglam thei a, a than a ti thu bawk. Khawizu ang deuh a thlum asiam chhuak a chu chuan a hnah a ti dum vek a,hmuar natna pawh a thlen thin ani.



- Arah 50 percent ati chhe vek thei
- Mealy bugs te hi thah pawh an har hle

A vendan:

Dichlorvos (Nuvan) 24 ml/tui liter 16 pawlh a kah tur chumi hnuah
Monocrotophos: 31 ml/tui liter 16 ah kah leh tur.

4. Leaf hoppers:

A pui leh note in a hnah hnuai a tangin tuihnang an hip thin;

A vendan :

Carbaryl 32 -40 gm/tui liter 16 pawlha kah tur ani



Natna ven leh enkawl dan

1. Anthracnose:

A tang la nolaiah, a hnah upalo ah leh arah sen lain in val, a buang rawng a awm a,a hnah hi ati kua thin ani.



A vendan:

- Bordeaux mixture: 1 % chu vawi 3-4 tal kah tur ani.
- Copper Oxychloride /Carbendazim 16 - 32gm/tui liter 16 pawlha kah tur ani.

2. Downy mildew:

A hnahah alang tlangpuia, rah sente pawh a khawih bawk. A rah bawr puitlin hma a a a khawih in a pawi thei hle, abawr achhe vek in, alo roa, a tla hial thin.

A hnah hnuai lam chu hmuar var in a khat a,a hnah chunglam chu a eng thin ani.a rah te pawh hmuar var hian a tuam thin ani.



A vendan:

- Bordeaux mixture 1% in vawi 3-5 (a tang hlawi, a hnah chawr hun,a par dawn ,a rah hunah leh a rah seng ni 10-15 hma in) kah tur ani.
- Ridomil MZ 48 gm tui litre 16 pawlh a kah tur ani.

3. Powdery mildew:

A hnah chung leh hnuai, atang no laiah, arahsenah te vut buak in a bawm khat thin ani.



A vendan

- Sulfex powder 32ml/tui litre 16 a kah tur ani.

4. Bacterial leaf-spot

Ahnah, kung leh rah bacteria te pawn an ti chhe ve ani, valbial a hnah hnuai lam ah te alo awm thin, abik in a thazam laiah te. Val hi alo lian zel thin.

A vendan:

- Bordeaux mixture 1 percent emaw, Copper Oxychloride 48 gm / tui litre 16 + Streptocyclin 3.2 gm, tang hlawi atanga a hnah chawr thleng ni 15 danah kah tur

ECONOMIC ANALYSIS OF GRAPE CULTIVATION

1 unit = 1 ha

Sl.No	Particulars	Quantity	Rate(Rs)	Amount(Rs.)
I.	1st year			
	i) Polypotted seedlings	1000 nos	8/-	8,000.00
	ii)G.I wire	8 qtls	7950/-	63,600.00
	iii)Pit digging and planting	20M.D	103/-	2,060.00
	iv)Collection of wooden post	30M.D	103/-	3,090.00
	v)Erection of trailing	30 M.D	103/-	3,090.00
	vi)weeding	50 M.D	103/-	5,150.00
	Vii)Transportation	L.S	L.S	2,000.00
	Total of 'I'			86,990.00
	Overhead charge including office expenses survey & investigation, monitoring			8699.00
	Total of 1st year			95,689.00

II	2nd Year			
	i) Secateur	1 Nos	402/-	402.00
	ii) Sprayer	1 Nos	1,500/-	1,500.00
	iii) Water storage tank	1 Nos	L.S	6,000.00
	iv) PVP pipe	L.S	L.S	4,000.00
	v) P.P measures	L.S	L.S	1,500.00
	vi) Training of pruning	10 M.D	103/-	1,030.00
	vii) weeding	8 MD	103/-	8,240.00
	viii) Organic manure	5 qtls.	1200/-	6,000.00
	Total of '11'			28,672.00
	Overhead charge including office expenses survey & investigation, monitoring @ Rs. 10%			2,867.00
	Total of 2nd Year			31,539.00
G. Total of I + II			127,228.00	

ECONOMIC OF GRAPE FRUIT CULTIVATION

1. 1ST Year Production - NIL
2. 2nd year Production - NIL
3. 3rd year
 - i) Expected yield/ha @ 4 Kg/Pl from 1,000 plants = 4,000 kgs
 - ii) Return @ Rs 40 per kg = Rs. 1,60,000.00.
4. 4th year
 - i) Expected yield/ha @ 8 kgs /Pl from 1,000 plants = 8,000 kgs
 - ii) Return @ Rs 40 per kg = Rs. 3,20,000.00.
 - iii) Gross income upto 4th year = Rs. 4,80,000.00

The farmer can have stable income from 4th year onwards @ 8,000 kgs Kgs/ha