

Ran leh sangha a Azolla pek tur zat

Sl.no	Ranvulh/sangha	Pek tur zat
1	Vawk	1.5-2 kg/day
2	Bawng	2.5-3 kg/day
3	Kel leh beram	200-300 g/day
4	Ar	20-40 g/day
5	Turkey	30-50 g/day
6	Sangha	20-40 g/day

Azolla khawi dan te

Tank method

Cement tanky, 3x3x20 feet siam hi duhthusam a ni a, hmun a remchan dan a zir in hei ai a zim te pawh in siam theih a ni. Lei chunglang hang hi hemi tanky chhungah hian 1ft vel a sang in dah tur a ni a, chumi hnu ah tui 1 ft

vel a sang in dah tur a ni. Azolla hi tlem hemi tui chhungah hian chhuah tur a ni a, kar 2 vel lek hnuah chuan ni tin seng theih an ni thin.



Silpauline lined pit method

A siamna hmun tur hi uluk tak a thlawh fai hnuah ru- alrem tak a mam (level) tur a ni a. Khur (3x3x20 feet) hemi ah hian lai tur a ni. Silpauline hi phah hnuah, lei chunglang hang hi hemi khur chhungah hian 1ft vel a sang in dah tur a ni a, chumi hnu ah tui 1 ft vel a sang in dah tur a ni. Azolla tlem hemi tui chungah hian chhuah tur a ni a, kar 2 vel lek hnuah chuan ni tin 1 kg seng theih an ni thin.



Brick cornered bed method

Hetiang a Azolla khawina ah hi chuan lei lai khwar kher a ngai lova, brick hi rem hual mai tur a ni. 3x10 feet anga zau vel in brick hi rem a ni a, a san zawng hi 1 ft vel anga duan thin a ni. Silpauline hi phah a nih hnuah tui hi chhun luh tur a ni a, hemi ah hian Azolla hi chhuah tur a ni. Kar 2 vel lek hnuah chuan ni tin seng tur a lo awm tawh thin.



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Azolla – Lei tithatu leh ran chaw



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Azolla – Lei tihthatu leh ran chaw

Thuhmahruai

Azolla hi katchât chi khat, tui a lang chi a ni a, an tet em avang hian pâtek pawh an ang zawk mah a, tui tlin na hmun ah hmuh tur a awm fo thin. *Azolla* hi hnim hring te tak te, zang deuh leh tui a lang thei an ni, an pung chakin an awmna hmun hi hun rei lo te ah an zam khat thei thin a ni. *Azolla* hian leitha (*Nitrogen*) ama tan a insiam theih avangin, a hranpa a *nitrogen* a chawm a ngai ve lo a ni.

Azolla khawi nan a thil pawimawh te

Boruak sik leh sa : 20°C -32°C

Eng : Ni eng 50%

Boruak hnawmzawng: 65-80%

Tui (tuikhuap tlin) : 5-15 cm

Tui thur/alna (pH) : 4-7.5

Azolla in a mamawh awmthei chu *phosphorus* a ni a, SSP tlem te pek hian an pung chak em em a ni.

Azolla tih pun dan

Azolla tih pun nan hian tuikhuah/tui tlinna hmun a tui chim chin hi 15cm (½ feet) vel a sang tur a ni. Tuikhuah leh leilet buh kar ah te pawh tha tak in an pung theih bawh.

Sik leh sa

Azolla hi Mizoram chhung hmun zawng zawng ah khawi theih a ni a, boruak sik leh sa 20°C atanga 32°C hi *Azolla* pun nan duhthusam a ni.

Eng

Azolla hi hmun daihlim lam deuh ah hian an pung chak in an hrisel a, leilet buh hmun ah te dah hian buh hlim hnuai ah tha tak in an pung thin a ni.

Soil pH

Azolla hi lei thur leh al (pH) 5.2 atanga 5.8 ah hian an pung chak bik a, hemi avang hian Mizoramah uar tak a hman theih ani.

Azolla khawi lai a hriattur thenkhat te

1. *Azolla* hi lensuah a seng theih ni se a tha
2. Tui hi 25°C ai in sa lo se duhthusam a ni.
3. Ni sa lutuk dan nan shade net, di, dap etc a hman theih bawh.
4. *Azolla* hi a pun chak em avangin hmun a awhkhat hma a, ni tin seng theih ni se a tha.

Azolla a nutrient pawimawh awm te

Azolla hian heng a hnuai a nutrient pawimawh tak tak, thlai leh ran in an mamawh te hi a awm -

Sl. no	Nutrients	Composition
1	Nitrogen	5.0%
2	Phosphorus	0.5%
3	Potassium	2.0-4.5%
4	Calcium	0.1-1.0%
5	Magnesium	0.65%
6	Manganese	0.16%
7	Iron	0.26%
8	Crude fat	3.0-3.3%
9	Sugar	3.4-3.5%
10	Starch	6.5%
11	Chlorophyll	0.34-0.55%
12	Ash	10.0%

Source : UNDP, 2011

Azolla hmanna te -

Biofertilizer atan

Azolla hi kum sang tam tak kal ta atang tawh khan leilet buh ah hian chin pawlh thin a ni tawh a. *Azolla* hian boruak a awm *nitrogen* hi a lo fawm khawm thei a, chuvang chuan leitha atan pawh hian tangkai tak a ni. Buh nen a chin pawlh hian hlo dang to tur tam tak a lo dip ve thei bawh a ni. *Azolla* hi tun dinhmun ah hian South-East Asia hmun tam tak ah biofertilizer atan hian hman mek a ni a, leilet a buh phun zawh hnu rei lo te ah *Azolla* hi leilet tuitling ah hian chhuah thin a ni. *Azolla* hian hlo lo to tur te a dip thi thin a, heng hlo te hi a lo tawih hian leitha buh in a mamawh tur a lo siam ve thin a ni.



A tangkaina te

1. *Azolla* hring 10 -12 ton/hectare a hman hian lei a *Nitrogen* awm 50-60 kg/hectare in a ti pung a, nitrogen fertilizer (Urea, DAP etc) hman hi 30-35kg/hectare in a ti tlem.
2. *Azolla* hman hian buh thar hi 20-30% in a ti tam. Buh chi thenkhat DR-92, RCPL-1-87-8, Mendri, H-2850 leh Manipur ah *Azolla* hman hian (leitha dang ring lovin) 30quintal/hectare a thar theih tih hmuhchhuah a ni bawh.
3. *Azolla* hian tui chunglang zawng zawng hi a chim khah thrin avang hian, hlo dang to tur a awm thei ngailo va, hemi avang hian loneitu tam tak a pui thei bawh a ni.
4. *Azolla* hian tui chunglang zawng zawng a chim khah thrin avangin tui hu riral mai tur a ti tlem in buh in tui an mamawhna a ti tlem sawt bawh.

Ran chaw atan

Azolla hian ran chaw tha tak tak - proteins, amino acids, Vitamin A leh B₁₂, beta growth promoters, calcium, phosphorus, potassium, ferro- magnesium leh thil dang tam tak a pai a ni. Mithiam ten *Azolla* hi ran chaw dang nen khaihkhin in bawngnute tui a ti tam theih tih an hmuhchhuah a, Broiler leh Layer tui te pawh engemaw zat in an rih phah in an tam phah bawh a ni. *Dry Azolla flakes* hi Ar chaw atan te hman a ni a, *Azolla* hring hi sangha chaw atan pawh hman a ni thin.

Azolla hian protein (25-35%), minerals (10-15%), leh chaw tha dang tam tak a pai avang hian ran chaw pangngai a lo tlem chuan a ai ah hman theih a ni.

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