

















**(xvii) Broiler Farm Economy Index (BFEI)**

BFEI chuan a pumpuia broiler farm tih thatdan a pholang a ni; a chung a tarlan tawh te zawng zawng behchhan an nih bakah growing period pawh a tel a ni. Hei hi European broiler economy score emaw broiler score or points ti a vuah a ni bawk a ni.

$$BFEI = \frac{\text{Ar rihzawng average (kg) X per cent livability X 100}}{\text{Feed efficiency (F.C.R) X vulh reichhung (days)}}$$

BFEI value chu 250 emaw a aia tam anih chuan farm chu tha taka enkawl niin arte an tha hle tihna a ni. Broiler nihphung hian hma a sawn reng avangin, breeding lamah te, management lamah te, natna venkawngah te hma an sawn chak hle a ni. Chuvangin, heng performance level (targets) te hi a changa ennawn thintur a ni. Tun dinhmunah chuan broiler ar vulhtu te chuan BFEI hi an thatdan tehnan an hmangber a ni. Farm BFEI thalo nei reng maite chu bansanin farm dang an thlang leh mai thei a ni.

**Note:** Tamtak tehfung sawifiah tawh nimahsela, an zinga hmanlar zual te chu:

1. Feed Efficiency (FE) per dozen eggs
2. Hen Day Egg Production (HDEP); nikhata tan leh a aia rei tan
3. Feed Conversion Ratio (FCR), broiler tan
4. Broiler Farm Economy Index (BFEI)
5. Break-even point
6. Benefit: Cost Ratio (BCR)

---

**I hmasawna enfiah rawh 1**

**Note:** a) I chhanna te ziah nan a hnuaia hmunawl hi hmang rawh.

b) I chhanna chu zirlai tawp lam atang khan endik ang che.

1) Enge integration?

.....  
.....  
.....  
.....

2) Broiler farm economy index enge ni?

.....  
.....  
.....  
.....

3) Broiler leh layer farm a tehfung hman larber engte nge ni?

.....

### 3.3 THARCHHU AH NANA SENSO

Chhinchhiahna mumal tak neih chuan artui leh sa tharchhuah nana senso te chhut chhuah theih a ni. Tharchhuah san chhan a hriatfiah tira, tichuan tharchhuah man tihhnam dantur kawng a zawn theih a ni. Artui leh arsa tharchhuah man tidanglam thei tamtak an awm a, a hnuai ah hian sawiho an ni:

#### 3.3.1 Tharchhuahna man nghawng thei te

Thil tam tak artui, broiler leh arnote thar chhuahna man nghawngthei tam tak an awm a. Tam tak chu a vulhtu banphak maia awm an ni. Chuvangin, chutiang arvulhtu ten an thunun theih chuan tharchhuah na man tihnamin hlawkna a hmu thei a ni. Tharchhuah na senso nghawng thei te chu a hnuai mi te hi an ni:

- (i) **Capital investment:** Atira sum hman a tlem leh a pung leh sumbul tana depreciation a tlem ve zel a ni, chu chuan tharchhuah man a tihnam a ni. Building leh hmanrua to leh changkang pumpelh hram tur a ni a, chu chuan a tira sum hman tur a titam a ni. Chutih laiin thil man tlawm lutuk chu leiloh tur a ni, entiman; di inchung, hluma siam chawpek na leh tuipek na te. In leh hmanrua te an vaia hman tangkai tur a ni. In leh hmanrua te nakina lahman atan ti a leilaw loh tur a ni.
- (ii) **Inputs purchase:** Farm mamawh heng hmanrua; chaw pawlh, damdawi, arnote te a tlawm theiang bera a siamtu te atanga leihram tur a ni.
- (iii) **Feed:** Chaw hi a malkhaia insenso tamna ber a ni. Senso 80% lai a awm a ni. Chuvangin, mahni a chaw insiam chawp hian chaw man a hniampah thei nasa hle a ni. Chawpawlh sawp tur, a chaw man tih hniam nan leikhawl tur a ni. Arvulhtu chuan a chawtha ah insen hreh tur a ni lova, a chaw chhia chuan an thathawh a tichhia a, ar thi a ti tam a ni.
- (iv) **Optimize production:** Artui tharchhuah tam, feed efficiency tha, thang chak, thi tlem, leh bothlau tlem hian ar farm ah tharchhuah man nasa takin a titem a ni. Chutiang neithe tur chuan enkawltha, bio-security tih that leh chaw tha pek leh tui pek te a tul a ni.
  - Layer farm ah chuan henghi tlin tum tur a ni: mortality < 0.5% per month, >95% peak egg production, > 90% egg production upto 50 weeks of age, > 85% farm average egg production, < 130 g feed peer egg, artui lenzawng pangngai (>55g) a hma thei angberin.
  - Chutiang bawkin, broiler farm ah chuan henghi tlin tumtur a ni: body weight of > 2kg in < 40 days of age, with FCR of < 1.8, mortality of < 5 %, hetiangah chuan tharchhuah senso a tlem a, hlawkna a tam theiangber hmu a ni. Heng tlin tur chuan enkawltha, bio-security tha zawka tih, ar chitha vulh leh chawpek that te an pawimawh hle a ni.
- (v) **Fixed cost:** Fixed cost heng; interest, depreciation, permanent manpower etc.

te hi, tharchhuah chu 0 emaw 100% pawh nise an danglam chuanglo a ni. Chuvangin, heng thil neih; insak, hmanrua etc. te chu fixed cost tihhniam nan a pumpuia hman tangkai tur a ni.

(vi) **Volume of operation:** Farm chu alo thanlen zel pahin tharchhuah man alo tlahniam ve zel a ni.

(vii) **Integration:** Integration hian tharchhuah senso a tihhniam thei hle a ni, a chhan chu an tharchhuah a tam tham vang a ni. Chubakah, integrator te chuan mahni chaw, damdawi, mahni a hralh chhuah etc. te an tih avangin nasa takin production cost tihhniam a ni.

### 3.3.2 Artui tharchhuah nana senso

Tunah chuan artui tharchhuah nana senso nghawng thei thil te i hre tawh a. A hnuai tarlan ang hian mamawh thil hrang hrang heng; archaw, hnathawktu, arte, electricity, damdawi, bank interest etc. a senso hrang hrang avang hian artui tharchhuah pakhat hralhna man chu a hnuai tarlan ang hian Rs. 1.90 atanga Rs. 2.20 inkar vel a ni thei a ni.

Item	Calculation	Amount (Rs.)	Proportion of Total Cost (%)
Archaw man	130 g of feed per egg × cost per kg of feed (Rs.13)	1.69	78.6
Arla man	(Rs. 18 per chick + feed 6 kg × Rs.13 + Misc. Rs. 12 – Rs. 18*) ÷ 320**	0.28	13.0
Miscellaneous cost (per egg)	Interest Rs. 0.12 + labour Rs. 0.02 + medicines Rs. 0.02 + power Rs. 0.01 + others Rs. 0.01	0.18	8.4
<b>TOTAL COST OF PRODUCTION PER EGG</b>		<b>2.15</b>	<b>100.0</b>
* Cost of a culled hen ** Average number of eggs produced per hen			

**Note:** Thil man te atul anga tihdanglamin a chungga tarlan dan hmang khian artui tharchhuah na man a chhutchhuah theih a ni.

Kawngdangin, artui pum 100 tharchhuah nana senso a hnuai mi ang hian a chhut theih a ni.

Item	A chhut chhuah dan	Amount (Rs.)
A) Ar man	[Cost of ready to lay pullet (108) – salvage value* (18)] × 100 ÷ 320**	28.12
B) Archaw man	13 kg per 100 eggs × cost /kg of feed (Rs. 13)	169.00
C) Miscellaneous cost	10% of A + B	19.71
<b>TOTAL COST OF PRODUCTION OF 100 EGGS</b>		<b>216.83</b>
*Cost of a culled hen **Average number of eggs produced per hen		

Tuna thil man hrang hrang atang hian 79% dawn lai chu artui tharchhuah na atana mamawh ar chaw leina lamah a kalral a ni, 13% chu arte lainan niin, a bak 8% chu thildang mamawh ah a kal ral bawk a ni. Chuvangin, farm hlawkna awm tura kalpui tur chuan, arvulhtu chuan a chawtha pai khawihbuai lo thei angberin archaw man hi tihhniam a tum tur a ni.

### 3.3.3 Broiler tharchhuah nana senso

Artui tharchhuah na ang bawk khan, broiler vulha senso tamna ber chu a chawah bawk a ni, chubakah, broiler tan energy, protein leh chawtha dangte mamawh ah

layer te ai chuan a sang zawk a ni. Formula hrang hrang hmangin, broiler tharchhuah na man hi heng behchhan hian a chhut theih a ni; per bird basis, per kg basis leh per kg dressed chicken basis.

### Assumptions

- Mortality chu 5% nise, atirah arnote 105, 100 hralh tur nei tur chuan kan mamawh a ni. Tichuan, **factor of 1.05 chicks per broiler** hi hman a ni.
- Broiler note pakhat man chu Rs. 15 a ni a.
- Broiler nungchung hralh laia rihzawng chu 2 kg nise.
- Feed efficiency chu 1.8 ani; chuvangin,
- Broiler pakhat tana chaw mamawhzat chu =  $2\text{kg} \times 1.8 = 3.6\text{ kg}$  a rit archaw chu broiler 2 kg a rit tharchhuah nan mamawh a ni.
- Broiler chaw (mahni a siamchawp ah) chu 1 kg Rs.16 ni bawkse.
- Archaw + Arte man atanga 10% chu thildang mamawh leinan nise i.e.  $0.1 \times (3.6\text{ kg} \times 16 + 15) = \text{Rs. } 7.26$
- Dressing % chu 75% vel ani bawk ang.
- Broiler pakhat puahna senso atan Rs.2 hman nise.
- Broiler nungchung hralhna man chu Rs. 60 per kg nise.
- Broiler puahsa hralhna man chu Rs.100 per kg nibawkse.

A chungha tarlan assumptions (ngaihruatna) te hmang khian, tharchhuah na man chhutchhuah na atana hman tur formula te chu a hnuai mi ange hi an ni:

Items	Calculation	Amount (Rs.)
<b>Broiler pakhat tharchhuak tura senso chhutna Formula</b>		
A. Chick cost	$1.05 \times \text{cost of one day-old chick (Rs.15)}$	15.75
B. Feed cost	$\text{Live weight } 2\text{ kg} \times \text{feed efficiency } 1.8 \times \text{cost per kg of feed Rs.16}$	57.60
C. Miscellaneous expenditure	10% of A+B	7.35
<b>Cost of production of a live broiler</b>		<b>80.70</b>
<b>Broiler 1kg a rit tharchhuah nana senso chhutna Formula</b>		
A. Chick cost	$0.53^* \times \text{cost of one day-old chick (Rs. 15)}$	7.95
B. Feed cost	$\text{Feed efficiency (1.8)} \times \text{cost per kg of feed (Rs. 16)}$	28.80
C. Miscellaneous expenditure	10% of A + B	3.65
<b>Cost of production of a kg live broiler</b>		<b>40.40</b>
<b>Ar puahsa (dressed) 1kg tharchhuah nana senso chhutna Formula</b>		
A. Chick cost	$0.70^{**} \times \text{cost of day-old chick (Rs. 15)}$	10.50
B. Feed cost	$1.4^{***} \times \text{feed efficiency (1.8)} \times \text{cost per kg of feed (Rs. 16)}$	40.32
C. Miscellaneous cost, including dressing cost	15% of A + B	7.62
<b>Ar puahsa kg khat man zat</b>		<b>58.44</b>
*, ** and *** are calculated depending on factor 1.05, dressing % and dressed weight		

A nungchung tharchhuahna man leh a hralhna (Rs.60 – 40.40 = 19.60) te inthlahna chu, puahsa tharchhuahna man leh dawr a hralhna man Rs.(100 – 58.44 = 41.56) te inkar inthlahna te a tlemzawk avangin, arvulhtu chuan emaw company chuan a puahsa a a hralh khan, a nungchunga hralh ai chuan hlawkna a hmu tamzawk thei a ni. Mahse, ar puahsa neitur chuan a hralh ralna kawng mumal tak neih a ngaia, chuvangin, insenna dang neuh neuh a awm theih bakah, a karah kharchhawng an tlazep ve bawk thin a ni.

### 3.3.4 Senso tih tlem dan kawng hrang hrang te

Farm sum dinhmun titha tur chuan senso tih tlem hi a khawikip atangin a pawimawh a ni. Chutianga tana inngahna tur te chu:

- Hlawkna pawchhuak lo tur senralna lam ringawt te chu pumpelth tur.
- Sumbul leh sum chevel tih buai lohtur.
- Archaw tharchhuah man, a thatna tih niam silovin, a hniam theih dan zawn tur.
- Zuar chhawng kaltlang lovin a theih chen chenah bungrua a siamtu te atanga lei tum tur.
- Tharchhuah tam lai taka a hlawma thil lei hi duhthusam a ni; mahse, a sum bul chu anih dntura hman zar zar tur a ni.
- Tharchhuah man tih tlem nan vertical leh horizontal integration zulzui tur a ni.
- A hmalama sawitawh angin tih dan mantlawm lam zawnzel tur a ni.
- Hmanrua reng reng hman tangkai vek tur, dahawl mai mai an awm tur a ni lo.

#### I hmasawna enfiah rawh 2

**Note:** a) I chhanna te ziah nan a hnuaia hmunawl hi hmang rawh.

b) I chhanna chu zirlai tawp lam atang khan endik ang che.

1) Senso tih tlem dan kawngte sawi rawh.

.....

.....

.....

2) Artui, broiler leh arnote tharchhuah na senso nghawng thei thil zia chhuak rawh.

.....

.....

.....

#### Tih tur 1

Poultry farm hnaivai tlawh la, artui emaw broiler emaw tharchhuah nana senso chhutchhuah dan en rawh. Chumi hmang chuan artui leh broiler tharchhuah na a tana senso chhutchhuak rawh.

.....

.....

---

### 3.4 ZIRLAI ENLETNA

---

Ar vulhtu emaw company chuan artui leh broiler an tharchhuahna senso zat a hre tur a ni, tichuan, a tihhniam dan tur a ruahman thei dawn a ni. Tharchhuahna senso a tlem leh a hlawk dawn tihna a ni. Archaw man hi thil pakhata sensoah chuan a sangber a ni a, senso zawng zawng 80% chu a chaw manah a kalral a ni. Chuvangin, a chaw man tihlem dankawng a thatna tibo silovin a zawng tur a ni. Thil mamawh loh leh tangkai lo tur leinan sumbul a hmanng tur a nilo. Hmanrua reng reng an nih dan tur ang ngeiin hman tangkai vek tur a ni. Tharchhuah alo pun chuan, tharchhuah na man a hniam ve zel a ni. Arvulh lama in telkhawm dan hrang hrang chu enga pawh nise artui leh arsa tharchhuah na senso chungte chuan a titem thei hrim hrim a ni.

---

### 3.5 THUMAL HMAN LEH A HRILHFIAHNA

---

<b>Benefit Cost Ratio (BCR)</b>	: Hei hi farm atanga hmuhchhuah zawng zawng leh senso zawng zawng belkhawm te inlaichinna a ni.
<b>Depreciation</b>	: Bungrua alo upat dan angzela a hlutna tlakhniamna.
<b>Feasibility Report</b>	: Project tihpuitlin nana sum lam leh thildang atanga a theih dan tur sawifiahna lehkha.
<b>Merger</b>	: Neitu pakhat hnuaia hnathawh pahnih emaw a aia tam emaw inchhun fin.
<b>Subsidy</b>	: Loneitu emaw company hnena sorkar in sum, thartam zel tur leh tihphur nan emaw a thil man chhawk zangkhaina atana a pek.

---

### 3.6 LEHKHABU CHHIARBELH ATANA RAWNTE

---

Sreenivasiah, P.V. 2007. *Scientific Poultry Production – A Unique Encyclopaedia*. International Book Distributing Company, Lucknow, India.

---

### 3.7 LEHKHABU RAWNTE

---

Narahari, D. and Rajini, R.A. 2004. *Poultry Projects and Economics*. Pixie Publications, Karnal, India.

---

### 3.8 IHMASAWNNA ENFIAH NANA CHHANNA TE

---

#### I hmasawna enfiah rawh 1

- 1) Integration chu pawl hrang hrang hnathawh, awn lam leh tum thuhmun, mamawh thuhmun emaw tharchhuah hmanng tangkai leh zel thei tura intelkhawm a ni. Integration hrang hrang an awm a; **Backward integration** (poultry farm mahni a hatchery leh feed mill nei), **Horizontal integration** (farm zauhzel leh farm dang leibelh), **Forward integration** (broiler farm neitu in a talhna hmun nei nghal) leh **Vertical integration** (backward leh forward integration tikawp). Integration chuan tharchhuah na senso a titem a, a chhan chu company chuan

a mamawh tur a thar chhuah theih vang leh a tharchhuah sawngbawl na a beih nghal vang a ni.

- 2) Broiler farm pumpui hlawhtlinna chu Broiler Farm Economy Index (BFEI) hian a tarlang Chiang thin hle a ni; chu chuan growing period huamtelin hloh leh hlep theihna nghawng thei pawimawh zawng zawng chu a behchhan a ni. **European broiler economy score** emaw **broiler score or points** anti bawh a ni.

$$\text{BFEI} = \frac{\text{Average final live weight (kg)} \times \text{per cent livability}}{\text{Feed efficiency (F.C.R.)} \times \text{growing period (days)}} \times 100$$

‘BFEI’ value chu 250 emaw a aia tam anih chuan farm chu tha taka enkawl niin arte an tha hle tihna a ni. Broiler nihphung hian hma a sawn reng avangin, breeding lamah te, management lamah te, natna venkawngah te hma an sawn chak hle a ni. Chuvangin, heng performance level (targets) te hi a changa ennawn thin tur a ni. Tun dinhmunah chuan broiler ar vulhtu te chuan BFEI hi an thatdan tehnan an hmangber a ni. Farm BFEI thalo nei reng maite chu bansanin farm dang an thlang leh mai thei a ni.

- 3) Broiler leh layer farm tan hian tehkhawng tehkhawng tam tak awm mahse, hman larzual deuh deuh te chu:
- 1) Feed Efficiency (FE) per dozen eggs
  - 2) Hen Day Egg Production (HDEP); nikhata tan leh a aia rei tan
  - 3) Feed Conversion Ratio (FCR), broiler tan
  - 4) Broiler Farm Economy Index (BFEI)
  - 5) Break-even point
  - 6) Benefit: Cost Ratio (BCR)

### I hmasawna enfiah rawh 2

- 1) Farm sum dinhmun titha tur chuan senso tihtlem hi a khawikip atangin a pawimawh a ni. Chutianga tana inngahna tur te chu:
  - Hlawkna pawchhuak lo tur senralna lam ringawt te chu pumpelh tur.
  - Sumbul leh sum chevel tihbuai loh tur.
  - Archaw tharchhuah man, a thatna tihnam silovin, a hniam theih dan zawn tur.
  - Zuar chhawng kaltlang lovin a theih chen chenah bungrua a siamtu te atanga lei tum tur.
  - Tharchhuah tam lai taka a hlawma thil lei hi duhthusam a ni; mahse, a sumbul chu anih dntura hman zar zar tur a ni.
  - Tharchhuah man tihtlem nan vertical leh horizontal integration zulzui tur a ni.
  - A hmalama sawi tawh angin tihdan man tlawm lam zawn zel tur a ni.
  - Hmanrua reng reng hman tangkai vek tur, dahawl mai mai an awm tur a ni lo.
- 2) Poultry farm a tharchhuahna senso nghawngthei thil hrang hrang te chu; Capital investment, Inputs purchase, Feed, Optimize production, Fixed cost, volume of operation leh Integration an ni.