



## **Black Soldier Fly (*Hermetia illucens*): A Boon to the growing Poultry Industry**

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### **Introduction**

India is among the **top five chicken and egg producers in the world**, but there are certain challenges to the business for small poultry farmers because of the quality, quantity and cost of feed. The high nutritive value of Black soldier flies aids as a substitute to attribute the challenges. Black soldier fly (*Hermetia illucens*) is a voracious feeder that can devour a wide variety of organic waste products. This makes black soldier fly larvae an attractive option for poultry farmers looking to reduce the cost of their feedstock. Black soldier fly larvae are high in protein and can be used as a substitute for traditional chicken feed. Not only are they nutritious, but they also provide chicks with important digestive enzymes. In addition, black soldier fly larvae are environmentally friendly and can help reduce the amount of waste produced by chickens.

### **Challenges in poultry Production**

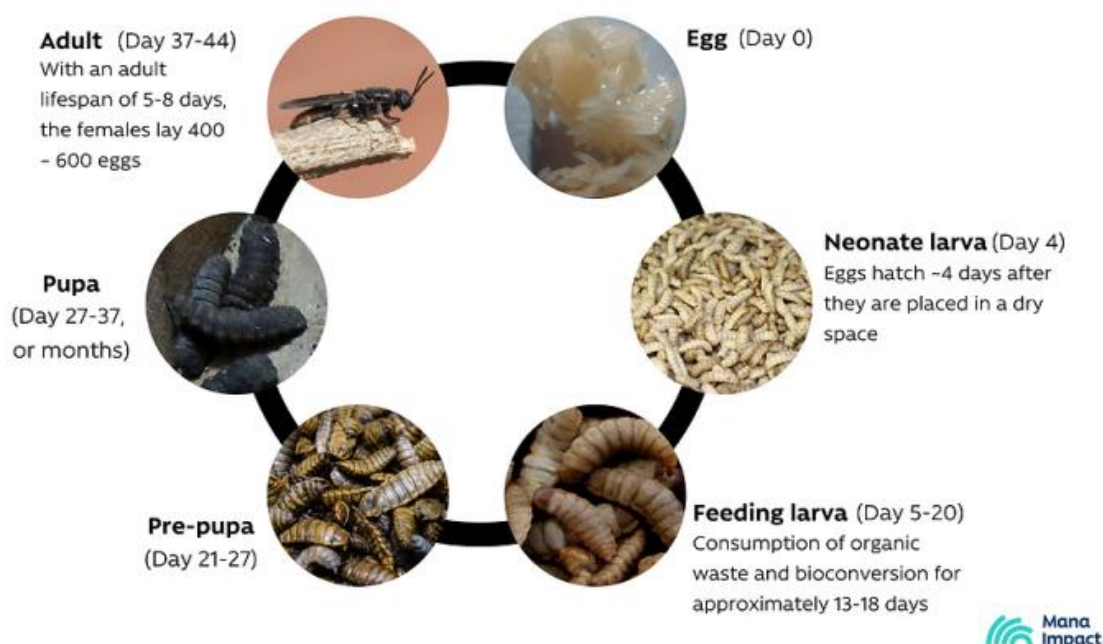
- ✓ High feed cost which accounts to about 70% production cost
- ✓ Feed resource availability as a major determinant as the cereal & soya compete with the increasing demands of human population.
- ✓ As an Alternate to above challenges researchers have found brewers dried grain a by-product in brewing industry with rich source of Amino acids & protein but limitations due to high moisture and fibre content.
- ✓ Another alternative is economically viable Rice bran but its limitations in poultry feed due to poor laying performance of chicks by consumption of feed incorporated with Rice bran.



All the above challenges has resulted in recent trends of Black soldier fly larvae incorporation in poultry feed as a substitute. Not only as a substitute, BSF larvae can convert organic components in domestic waste, livestock and poultry manure, by-products of seafood and agricultural production, etc. into biomass

### BSF's life cycle

Comprises four phases: a). Egg b). Larva c). Pupa d). Adult.



### The benefits of feeding your chickens with black soldier fly larvae

Black soldier fly larvae are a great feed for chickens because they are high in protein (15%), Crude fat (5.8%) a rich source of calcium, phosphorus, magnesium, sodium, potassium, iron, zinc, copper and manganese. Thus the high nutritive value, which makes them a good supplement to chicken feed. Black soldier fly larvae can be used to replace some of the chicken feed that is typically used in poultry production. This can help reduce costs and improve the overall profitability of your poultry operation. Chickens that are healthy and well-fed will produce eggs and meat that are of high quality and taste great. There are several benefits to using black soldier fly larvae as poultry feed, including increased weight gain, better nutrient absorption, better egg quality, high immunity to disease. Benefits of BSF larvae in commerce including:



- Reduce the cost towards livestock feed.
- Good amount of biomass production from organic wastes.
- Highly efficient in waste decomposing compared to worms.
- The meat produced by consumption of larvae would be firm & the fur would be soft.
- Increases the resistance to diseases & boosts the immunity in farm animals especially in poultry and fishery.
- Increases the amount of feed consumption in animals by supplementing larvae in feed.
- The manure produced by utilization of worms results in good yield especially in horticulture crops & agriculture crops.

### **Conclusion**

Feeding poultry with BSF larvae either live/ dried & powdered form mixed with commercial ration reduces the cost of production towards feed & also aids in supplementation of protein source in feed. The huge production of BSF reduces the competence of soya in feed & also helps in attaining good body weight gain & early egg production compared to birds fed on sole source of feed.