

## **TITLE: INCOME ENHANCEMENT THROUGH CULTIVATION OF CABBAGE AND TOMATO**

### **Profile of the farmer**

**Name of the grower:** Mr R.Vanlalhriata  
**Village** : Tuipui D  
**Block** : Hnahthial  
**District** : Lunglei  
**Enterprise** :Vegetable cultivation  
**Name of the Centre** : KVK Lunglei District, Mizoram

### **Background information of the grower:**

Mr. R. Vanlalhriata is a graduate unemployed farmer who is interested in vegetable cultivation from Tuipui D village of Lunglei District. He cultivated Cabbage & Tomato every year in his field. He mostly cultivates tomato in open condition, due to rotting of fruit before harvest and incidence of pest and diseases results in low yield. Proper nursery management of tomato is not followed in open condition which resulted in severe incidence of damping off disease and also deteriorates the quality of seedlings before transplanting. Due to the lack of knowledge on proper cultivation practices of cabbage & tomato, the yield was drastically low.

He attended training and method demonstration conducted by KVK Lunglei. Protected cultivation was demonstrated in his field with technologies like proper nursery management, IPM, IDM and nutrient management for successful cultivation of tomato. Required inputs were also given by KVK and he became one of the successful entrepreneurs among the farmers in his village.

### **Technology/process intervened:**

Proper nursery management and land preparation, High Yielding and resistant varieties of Cabbage (var. *Ryozeki*) and Tomato (var.*Arka Abhed and Arka Samrat* ), line sowing followed. Protected cultivation for tomato under polyhouse with a spacing of 90x 60 cm. Seed rate 400g/ha for cabbage and 250g/ha for tomato. NPK

@120:60:60 kg/ha for cabbage and 120:60:50 kg/ha for tomato. Integrated Pest Management and awareness programme on the use of sticky traps, pheromone traps and other IPM strategies were successfully demonstrated on cabbage & tomato in his field as well as polyhouse.

**Effect of the technology/process (with facts and figures):**

The intervention of new technologies imparted by KVK Lunglei District has helped Mr. R. Vanlalhriata increase his production over the years as compared to his traditional practice.

| Year | Crop    | Production (qtls) | Gross cost (Rs) | Gross return (Rs) | Net return (Rs) | BC ratio |
|------|---------|-------------------|-----------------|-------------------|-----------------|----------|
| 2021 | Cabbage | 40.2              | 28,000          | 60,300            | 32,300          | 2.1      |
|      | Tomato  | 50.5              | 39,000          | 1,01,000          | 62,000          | 2.5      |
| 2022 | Cabbage | 105               | 65,000          | 1,57,500          | 92,500          | 2.4      |
|      | Tomato  | 125               | 68,000          | 1,87,500          | 1,19,500        | 2.7      |
| 2023 | Cabbage | 210               | 89,000          | 3,15,000          | 2,26,000        | 3.5      |
|      | Tomato  | 235               | 94,000          | 3,52,500          | 2,58,500        | 3.7      |

**Suitability and adaptability in the existing farming systems:**

The scientific and improved cultivation practices has shown significant changes in the farmer which result in increase his economic return. By considering various factors like soil, climate, water availability, market demand of Tuipui D village, he can determine the suitability and adaptability of cabbage and tomato cultivation in his farming system. Implementing appropriate cultivation practices and management strategies can help optimize crop yields and contribute to the overall productivity of his farm and sustainability over the long term.

**Acceptance of technology/process in terms of views of the farmers:**

The training programme and demonstration conducted by KVK Lunglei has helped Mr. R. Vanlalhriata on the importance of selection of high yielding and resistant varieties of vegetables, the importance of improved cultivation practices and raising of vegetable seedlings, nutrient management and plant protection measures which resulted in increased production of vegetables.

**Out scaling of technology (Horizontal spread):**

Tuipui D village has now become a commercial cabbage and tomato producing village in the district through Mr. R. Vanlalhriata. Farmers from his village became aware of scientific cabbage & tomato cultivation, time of sowing, nutrient management, pest and disease management etc. The impact has also reached out to neighbouring villages like South Vanlaiphai, Darzo, Hnahthial and Thiltlang who also replicated the technology and started cultivating cabbage and tomato.

**Substitution or replacement of commodities:**

Mr. R. Vanlalhriata became aware of improved cultivation practices of cabbage and tomato. This has helped him to overcome most of his problems which he faced earlier in raising his crops which includes incidence of different pest and diseases. Due to this, he was able to generate an income of more than three folds of his annual income.

**Socio-economic impact:**

After adopting the technology, the yield was higher as compare to previous year, round the year cultivation of vegetables under polyhouse, cultivation of high yielding variety of cabbage and resistant varieties of tomato which result in less incidence of pest diseases has been practised and popularized in many villages of the district. It has generated sustainable income throughout the year for the farmers. The income generated through sells of cabbage and tomato was higher with the average yield of 210qtls and 235qtls/ha with the net income of Rs. 2,26,000 and 2,58,500 respectively during last year. Other farmers has started practicing the same technology in their field which shows a positive impact in the village.

**Marketing network established:**

The farmer usually sell his produce in local market, nearby villages and other district within the state. Tomato was cultivated during off season which fetch a higher price than during rabi season.

**Linkage with technology/development organizations:**

After KVK Lunglei intervention on improved cultivation technology of cabbage and tomato, the farmers gets recognition from different agencies like ATMA, MzSRLM, NEIDA and State government and became one of the best progressive farmers in the district.



**Name of farmer: Mr. R. Vanlalhriata**



**Demonstration of Tomato variety *Arka Abhed* under polyhouse**



**Diagnostic visit on Tomato**



**Harvesting of Cabbage by the farmers**



**Field visit on Cabbage**

