COMBINED EFFECTS OF ORGANIC MANURES AND CHEMICAL FERTILIZERS ON GROWTH AND YIELD OF RED CAPSICUM (CAPSICUM ANNUUM L.) GROWN AT ROOFTOP

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Key words: Growth and yield, Organic manure and chemical fertilizer, Red capsicum, Trichocompost

Abstract
A pot experiment was conducted to evaluate the effects of organic manures and inorganic fertilizers on the growth and yield of red capsicum (Capsicum annuum L.). It was conducted on rooftop of a building in Bogura town, Bogura. The experiment consisted of twelve treatments with three replications and was laid out in Randomized Complete Block Design (RCBD). Treatments were T1: Control (-OM and -NPK), T2: 4 ton Nafo ha⁻¹ + N₂₅P₀K₂₅ kg ha⁻¹, T3: 4 ton ACl ha⁻¹ + N₂₅P₀K₂₅ kg ha⁻¹, T4: 4 ton Trichocompost ha⁻¹ + N₂₅P₀K₂₅ kg ha⁻¹, T5: 4 ton Kazi Farms ha⁻¹ + N₂₅P₀K₂₅ kg ha⁻¹, T6: 4 ton Mimpex ha⁻¹ + N₂₅P₀K₂₅ kg ha⁻¹, T7: 4 ton Mazim ha⁻¹ + N₂₅P₀K₂₅ kg ha⁻¹, T8: 4 ton McDonald ha⁻¹ + N₂₅P₀K₂₅ kg ha⁻¹, T9: 4 ton Paragon ha⁻¹ + N₂₅P₀K₂₅ kg ha⁻¹, T10: 4 ton Kazi Agro ha⁻¹ + N₂₅P₀K₂₅ kg ha⁻¹, T11: 4 ton Vermicompost ha⁻¹ + N₂₅P₀K₂₅ kg ha⁻¹, T12: N₅₀P₀K₀₀ kg ha⁻¹. Highest plant height (33.81 cm), leaf area (87.22 cm² plant⁻¹), number of leaves (43 plant⁻¹), number of branches (6 plant⁻¹), number of fruits (11 plant⁻¹), fresh weight (0.60 g plant⁻¹) and dry weight (12.67 g plant⁻¹) were observed in treatment T4: 4 ton Trichocompost ha⁻¹ + N₂₅P₀K₂₅ kg ha⁻¹. Highest girth (3.18 cm) was observed in treatment T7: 4 ton Mazim ha⁻¹ + N₂₅P₀K₂₅ kg ha⁻¹. The overall best growth performance was achieved in T4: 4 ton Trichocompost ha⁻¹ + N₂₅P₀K₂₅ kg ha⁻¹ treatment.

Introduction

Red capsicum (Capsicum annuum L.) belongs to the family Solanaceae and commonly known as bell pepper. Sweet pepper includes different cultivars and the most commonly used ones are hybrids that have bell-shaped. Bell peppers are of different colors ranging from green to yellow, red, orange, purple, and black. Chilli is an important commercial spice vegetable and medicine used all over the world due to its pungency odour, taste, flavor and high colouring substance. Fruits are rich source of vitamin C, A and E and anti-oxidant. During the past few decades, intensive farming has been practiced to increase crop yield per unit area. Excessive amounts of inorganic fertilizers are generally

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applied to vegetable crops to obtain higher yield\(^{(3)}\). The present soil fertility status of Bangladesh is alarming due to excess use of inorganic fertilizers\(^{(4)}\). Continuous cultivation of soil using inorganic fertilizers has been implicated in reduction of soil organic carbon and organic matter, nutrient imbalance, deficiency of secondary macronutrients and micronutrients\(^{(5)}\). There is no doubt that chemical fertilizers are playing a vital role to meet the nutrient requirement of crops and thereby increase their production. On the other hand, the use of organic manures is beneficial to the soil in terms of alleviating soil acidity, enhancement of soil physical properties and nutrient status\(^{(6)}\). Organic manures not only improve the soil physical, chemical and biological properties but also improve the moisture holding capacity of soil. Organic manure can enhance crop productivity with better quality yield\(^{(4)}\). Since the nutrient turnover in soil plant system is considerably high in intensive farming, neither the chemical fertilizers nor the organic and biological sources alone can achieve production sustainability\(^{(7)}\). Sole application of organic sources cannot maintain and synchronize the required nutrient supply to the growing plant due to lesser quantity of mineral nutrients or time needed for their mineralization to release nutrients for plant uptake\(^{(8)}\). Likewise, chemical fertilizers, even with balanced use, could not maintain high yield level over the years because of deterioration in soil physical and biological environments due to low organic matter content in soils\(^{(9)}\). Organically grown crops are believed to provide healthier and nutritionally superior food for men and animals than those grown with commercial manures\(^{(10)}\).

In recent times, the concept of integrated nutrient management has been receiving increasing attention worldwide obviously for reasons of economization of fertilizer usage, safeguarding and ensuring scientific management of soil health for optimum growth, yield and quality of crops in an integrated manner in a specific agro-ecological situations, through balanced use of organic and inorganic plant nutrients; so that one can harvest good yield without deteriorating soil health. Maintaining soil fertility status has been seen as one of the best soil management practices that influence sweet pepper productivity. The best option to maintain soil fertility as well as higher yield is through application of organic and inorganic fertilizers\(^{(11)}\).

Use of inorganic fertilizers and organic manures has assumed a great significance in recent years in vegetables production for two reasons. Firstly, the need for continued increase production and per hectare yield of vegetables requires the increase amount of nutrients. Secondly, the results of a large number of experiments on inorganic and organic fertilizers conducted in several countries reveal that inorganic fertilizer alone cannot sustain the productivity of soils under highly intensive cropping systems\(^{(12)}\). Therefore, to keep the environment clean and to fulfill the demand of red capsicum for the people of town the present experiment was carried out to study the effects of organic manures and inorganic fertilizers on the growth and yield of red capsicum grown at rooftop in pots.
Materials and Methods

*Soil sample collection and analysis:* Soil sample was collected from Gabtali, Bogura, Bangladesh which is situated at 24°53' 24' N latitude and 89°27' 5' E longitude. The sample was collected from 0 - 15 cm depth. The sample was air-dried, ground by using wooden hammer and sieved through 2 mm sieve. The soil was silty clay in texture\(^{(13)}\) with pH 5.4. Organic carbon\(^{(14)}\), total nitrogen (N)\(^{(15)}\), available phosphorus (P)\(^{(16)}\) and exchangeable potassium (K)\(^{(17)}\) was found 1.56%, 0.102%, 5.3 \(\mu g\) g\(^{-1}\) and 0.195 \(\mu g\) g\(^{-1}\), respectively.

*Pot experiment:* A pot experiment was conducted at Bogura Sadar, Bogura, Bangladesh. Ten types of different organic manures and three types of inorganic fertilizers were collected from local market. The experiment was consisted of twelve treatments with three replications and laid out in Randomized Completely Block Design (RCBD). Six kilogram soil per plastic pot (height 23 cm and diameter 25.5 cm) was used. Organic manures at the rate of 4 ton ha\(^{-1}\), N 23 and 46 kg ha\(^{-1}\) as urea, P 10 and 20 kg ha\(^{-1}\) as di-ammonium phosphate (DAP) and K 25 and 50 kg ha\(^{-1}\) as muriate of potash (MoP) were applied. Treatments were: T\(_1\) Control (-OM and -NPK), T\(_2\) 4 ton Nafco ha\(^{-1}\) + N\(_{25}\)P\(_{10}\)K\(_{25}\) kg ha\(^{-1}\), T\(_3\) 4 ton ACI ha\(^{-1}\) + N\(_{25}\)P\(_{10}\)K\(_{25}\) kg ha\(^{-1}\), T\(_4\) 4 ton Kazi Farms ha\(^{-1}\) + N\(_{25}\)P\(_{10}\)K\(_{25}\) kg ha\(^{-1}\), T\(_5\) 4 ton Kazi Farms ha\(^{-1}\) + N\(_{25}\)P\(_{10}\)K\(_{25}\) kg ha\(^{-1}\), T\(_6\) 4 ton Mimpex ha\(^{-1}\) + N\(_{25}\)P\(_{10}\)K\(_{25}\) kg ha\(^{-1}\), T\(_7\) 4 ton Mazim ha\(^{-1}\) + N\(_{25}\)P\(_{10}\)K\(_{25}\) kg ha\(^{-1}\), T\(_8\) 4 ton McDonald ha\(^{-1}\) + N\(_{25}\)P\(_{10}\)K\(_{25}\) kg ha\(^{-1}\), T\(_9\) 4 ton Paragon ha\(^{-1}\) + N\(_{25}\)P\(_{10}\)K\(_{25}\) kg ha\(^{-1}\), T\(_{10}\) 4 ton Kazi Agro ha\(^{-1}\) + N\(_{25}\)P\(_{10}\)K\(_{25}\) kg ha\(^{-1}\), T\(_{11}\) 4 ton Vermicompost ha\(^{-1}\) + N\(_{25}\)P\(_{10}\)K\(_{25}\) kg ha\(^{-1}\) and T\(_{12}\) N\(_{40}\)P\(_{20}\)K\(_{30}\) kg ha\(^{-1}\). Four weeks old seedlings of red capsicum were collected from Horticulture Center, Bogura, Bangladesh and one seedling was transplanted per pot. Growth parameters were measured at 15 days interval up to 120 days. Watering, spraying and necessary intercultural operations were done accordingly.

*Harvesting:* Plants were harvested as root, stem, leaves and fruits, and fresh weight were recorded. Roots were washed with tap water and finally with distilled water, and wrapped with soft tissue paper. Then samples were air-dried in the room temperature and finally oven-dried at 65°C in the laboratory for two days. The dry weight of the samples was measured and the samples were grounded with a mechanical grinder and stored in the polythene bags. The obtained data for different parameters were evaluated by the Least Significant Difference (LSD) test at 5% level of probability using IBM SPSS Statistics 25.

Results and Discussion

*Plant height:* Results in Table 1 showed that plant height of red capsicum affected by the application of combined organic and inorganic fertilizer. Plant height of red capsicum varied significantly (\(p \leq 0.05\)) at 45, 60, 75, 90 and 120 days for different combinations of organic and inorganic fertilizers (Table 1). The highest (33.81 cm) plant height was
recorded from T4 (4 ton Trichocompost ha\(^{-1}\) + N\(_{23}\)P\(_{10}\)K\(_{25}\)) compared to control T1 (22.13 cm) and inorganic fertilizer T12 (23.21 cm) 120 day at harvest. Highest plant height was observed at treatment T4 followed by T6, T11, T2, T10, T3, T7, T9, T8, T12, T5 and T1. This might

![Image](image.png)

**Fig. 1.** A red capsicum plant grown in 4 ton Trichocompost ha\(^{-1}\) + N\(_{23}\)P\(_{10}\)K\(_{25}\) kg ha\(^{-1}\).  

**Table 1. Effects of different organic manures and inorganic fertilizers on the height (cm) of red capsicum plant.**

| Treatments | Days after transplanting |
|------------|--------------------------|
|            | 15d | 30d | 45d | 60d | 75d | 90d | 105d | 120d |
| T1         | 11.83 | 17.43 | 20.73 | 21.50 | 21.90 | 21.93 | 22.10 | 22.13 |
| T2         | 10.67 | 19.53 | 24.57 | 25.17 | 25.67 | 25.73 | 25.57 | 25.58 |
| T3         | 12.00 | 15.07 | 21.30 | 24.03 | 24.33 | 24.43 | 25.10 | 25.12 |
| T4         | 13.87 | 21.03 | 27.67 | 30.17 | 32.20 | 33.37 | 33.80 | 33.81 |
| T5         | 10.50 | 19.83 | 21.57 | 21.97 | 22.33 | 22.57 | 22.90 | 22.94 |
| T6         | 13.00 | 21.70 | 27.77 | 29.90 | 30.23 | 30.37 | 30.40 | 30.42 |
| T7         | 10.93 | 21.40 | 24.13 | 24.40 | 24.57 | 24.80 | 24.70 | 24.72 |
| T8         | 10.23 | 14.53 | 17.40 | 20.83 | 22.73 | 23.10 | 23.63 | 23.64 |
| T9         | 11.47 | 16.70 | 22.73 | 23.77 | 24.07 | 24.13 | 24.17 | 24.19 |
| T10        | 12.33 | 19.60 | 22.93 | 23.53 | 24.20 | 24.33 | 25.40 | 25.41 |
| T11        | 10.27 | 19.67 | 24.70 | 24.83 | 25.17 | 25.23 | 25.93 | 25.95 |
| T12        | 11.97 | 16.73 | 21.13 | 21.87 | 22.37 | 22.63 | 23.20 | 23.21 |
| LSD at 5%  | NS   | NS   | 16.46 | 12.31 | 13.55 | 11.78 | 10.76 | 10.77 |
be due to continuous supply of nutrients possibly from organic source which helped for better growth of the plants. Several studies have indicated that plant height increased by the application of chemical fertilizers and organic manures\(^{(14,19)}\). Chilli crop responds well to the application of both organic and inorganic fertilizers. Recommended dose of chemical fertilizer \((N_{100}P_{60}S_{20}Zn_{10}B_{1} \text{ kg ha}^{-1})\) in combination with 5 ton ha\(^{-1}\) cowdung produced highest yield of dry chilli at Bogura \((1.74 \text{ ton ha}^{-1})\) and Hathazari \((1.36 \text{ ton ha}^{-1})\)\(^{(15,19)}\).

**Number of leaves:** The number of leaves per plant at different stages of growth showed significant variation among the different treatments (Table 2). The highest number \((43 \text{ per plant})\) of leaves was recorded in \(T_4\) \((4 \text{ ton Trichocompost ha}^{-1} + \text{ N}_23\text{P}_10\text{K}_25 \text{ kg ha}^{-1})\) compared to control \(T_1\) \((26 \text{ per plant})\) and inorganic fertilizer \(T_{12}\) \((30 \text{ per plant})\). Zaman and Talukder\(^{(16)}\) \(^{20}\) carried out an experiment on chilli at Jamalpur district and found the highest dry yield of chilli \((2.15 \text{ ton ha}^{-1})\) at \(N_{120}P_{60}S_{18}Zn_{2}B_{0.5} \text{ kg ha}^{-1}\) with 5 ton ha\(^{-1}\) of cow dung.

### Table 2. Effects of different organic manures and inorganic fertilizers on the number of leaf of red capsicum plant.

| Treatments | Days after transplanting |
|------------|--------------------------|
|            | 15d | 30d | 45d | 60d | 75d | 90d | 105d | 120d |
| \(T_1\)    | 9   | 12  | 15  | 17  | 20  | 21  | 24   | 26   |
| \(T_2\)    | 9   | 17  | 28  | 28  | 31  | 33  | 35   | 37   |
| \(T_3\)    | 7   | 12  | 15  | 18  | 22  | 24  | 26   | 28   |
| \(T_4\)    | 8   | 15  | 27  | 32  | 35  | 37  | 41   | 43   |
| \(T_5\)    | 8   | 20  | 22  | 24  | 26  | 30  | 31   | 33   |
| \(T_6\)    | 8   | 17  | 21  | 24  | 26  | 29  | 31   | 33   |
| \(T_7\)    | 8   | 23  | 17  | 20  | 23  | 26  | 29   | 31   |
| \(T_8\)    | 8   | 12  | 16  | 19  | 21  | 24  | 28   | 30   |
| \(T_9\)    | 8   | 14  | 20  | 20  | 23  | 25  | 28   | 31   |
| \(T_{10}\) | 7   | 22  | 24  | 26  | 29  | 31  | 33   | 35   |
| \(T_{11}\) | 7   | 11  | 14  | 18  | 22  | 22  | 28   | 32   |
| \(T_{12}\) | 7   | 11  | 14  | 17  | 21  | 21  | 27   | 30   |
| LSD at 5%  | NS  | NS  | 16.1| 13.81| 10.63| 9.55| 6.93 | 3.6  |

**Number of branches:** Highest number of branches \((6 \text{ per plant})\) and the lowest number of branches \((3 \text{ per plant})\) was recorded at \(T_4\) \((4 \text{ ton Trichocompost ha}^{-1} + \text{ N}_23\text{P}_10\text{K}_25 \text{ kg ha}^{-1})\) and \(T_1\) (control) respectively (Table 3). Other treatments showed intermediate effects. Zaman et al.\(^{(17,21)}\) reported that the different sources of nitrogenous fertilizers had significant influence on the plant height, number of branches per plant, fruit size and fruit yield per plant of chilli.
Table 3. Effects of different organic manures and inorganic fertilizers on the number of branch of red capsicum plant.

| Treatments | Days after transplanting | 45d | 60d | 75d | 90d | 105d | 120d |
|------------|-------------------------|-----|-----|-----|-----|------|------|
| T1         | 0                       | 1   | 1   | 2   | 3   | 3    |      |
| T2         | 2                       | 4   | 4   | 4   | 5   | 5    |      |
| T3         | 1                       | 2   | 3   | 4   | 4   |      |      |
| T4         | 2                       | 3   | 3   | 4   | 4   | 5    |      |
| T5         | 2                       | 3   | 4   | 4   | 5   | 5    |      |
| T6         | 1                       | 3   | 3   | 3   | 4   | 4    |      |
| T7         | 4                       | 5   | 5   | 6   | 6   | 6    |      |
| T8         | 1                       | 2   | 3   | 3   | 3   | 3    |      |
| T9         | 2                       | 3   | 4   | 4   | 4   | 4    |      |
| T10        | 4                       | 4   | 5   | 5   | 5   | 5    |      |
| T11        | 2                       | 4   | 4   | 4   | 5   | 5    |      |
| T12        | 2                       | 3   | 4   | 4   | 5   | 5    |      |
| LSD at 5%  | NS                      | 1.31| 1.31| 0.7 | 0.89| 0.84 |      |

Table 4. Effects of different organic manures and inorganic fertilizers on the girth (cm) of red capsicum plant.

| Treatments | Days after transplanting | 30d | 45d | 60d | 75d | 90d | 105d | 120d |
|------------|-------------------------|-----|-----|-----|-----|-----|------|------|
| T1         | 1.43                    | 1.77| 1.83| 1.83| 1.97| 2.03| 2.05 |      |
| T2         | 2.15                    | 2.40| 2.43| 2.57| 2.67| 2.73| 2.74 |      |
| T3         | 2.07                    | 2.33| 2.37| 2.43| 2.60| 2.67| 2.68 |      |
| T4         | 2.23                    | 2.47| 2.57| 2.63| 2.80| 2.97| 2.99 |      |
| T5         | 2.37                    | 2.60| 2.67| 2.73| 2.73| 2.83| 2.84 |      |
| T6         | 2.10                    | 2.37| 2.57| 2.60| 2.67| 2.73| 2.75 |      |
| T7         | 2.73                    | 2.80| 2.93| 3.00| 3.13| 3.17| 3.18 |      |
| T8         | 2.10                    | 2.17| 2.23| 2.37| 2.40| 2.50| 2.52 |      |
| T9         | 2.30                    | 2.73| 2.77| 2.80| 2.87| 2.93| 2.94 |      |
| T10        | 2.40                    | 2.47| 2.50| 2.57| 2.67| 2.73| 2.74 |      |
| T11        | 2.27                    | 2.37| 2.60| 2.70| 2.83| 2.87| 2.89 |      |
| T12        | 1.83                    | 2.37| 2.40| 2.43| 2.53| 2.60| 2.61 |      |
| LSD at 5%  | 0.21                    | 0.15| 0.09| 0.07| 0.05| 0.05| 0.04 |      |
**Girth:** A significant variation was found in girth per plant due to different organic and inorganic fertilizers application at different stages of growth (Table 4). The highest girth (3.18 cm) of the plant was observed in T7 (4 ton Mazim ha⁻¹ + N₂P₁₀K₆ kg ha⁻¹) which was followed by T₄, T₉, T₁₁, T₅, T₆, T₇, T₈, T₉, T₈, T₉, T₁₀, T₁, T₁₂, T₁ and T₁ treatments at harvest. Petter et al.⁴⁸,²² confirmed that integrated application of organic and inorganic fertilizers significantly increased plant growth and crop productivity.

**Fruits:** The highest number of fruits (11 per plant) was recorded in T₄ (4 ton Trichocompost ha⁻¹ + N₂P₁₀K₆ kg ha⁻¹) compared to control T₁ (4 per plant) (Table 5). Highest fruit length and diameter was observed in T₄ (4 ton Trichocompost ha⁻¹ + N₂P₁₀K₆ kg ha⁻¹) was 10.5 cm and 6.5 cm, respectively. Nawrin et al.⁴⁹,²³ reported that the overall best growth, yield and nutrient accumulation in the fruits of chilli were achieved in B₀.₅ kg ha⁻¹ + VC 5 ton ha⁻¹ treatment.

Table 5. Effects of different organic manures and inorganic fertilizers on the fruits of red capsicum plant.

| Treatments | Days after transplanting | Weight (g) |
|------------|--------------------------|------------|
|            | Number of fruits | Highest length of fruits(cm) | Highest diameter of fruits (cm) | Fresh | Dry |
| T₁         | 4          | 4.5                      | 2.8                      | 15.00 | 2.00 |
| T₂         | 8          | 5.2                      | 3.2                      | 20.00 | 2.33 |
| T₃         | 7          | 5.8                      | 4.2                      | 30.67 | 2.00 |
| T₄         | 11         | 10.5                     | 6.5                      | 56.00 | 0.70 |
| T₅         | 7          | 6.0                      | 4.3                      | 36.33 | 4.33 |
| T₆         | 8          | 6.2                      | 3.4                      | 34.33 | 3.60 |
| T₇         | 10         | 7.8                      | 4.0                      | 43.00 | 2.77 |
| T₈         | 6          | 5.0                      | 3.0                      | 26.00 | 2.00 |
| T₉         | 6          | 10                      | 6.0                      | 55.00 | 3.00 |
| T₁₀        | 8          | 5.6                      | 4.2                      | 33.67 | 3.63 |
| T₁₁        | 9          | 6.5                      | 4.4                      | 37.00 | 3.93 |
| T₁₂        | 6          | 6.8                      | 4.4                      | 34.00 | 3.00 |
| LSD at 5%  | -          | -                        | -                        | 34.64 | 0.31 |

**Fresh and dry weight of plants:** Fresh weight of roots and leaves per plant did not differ significantly (p < 0.05). The highest shoot weight (12.67 g plant⁻¹) and the lowest (4 g plant⁻¹) was observed in treatment T₄ and T₁, respectively. Dry weight of shoot and root did not vary significantly (p < 0.05). The highest dry weight of root (0.60 g plant⁻¹) was
Table 6. Effects of different organic manures and inorganic fertilizers on the fresh and dry weight of red capsicum plant.

| Treatments | Fresh weight (g plant⁻¹) | Dry weight (g plant⁻¹) |
|------------|-------------------------|-----------------------|
|            | Root | Shoot | Leaf | Total | Root | Shoot | Leaf | Total |
| T₁         | 1.00 | 4.00  | 2.00 | 7.00  | 0.40 | 1.50  | 0.50 | 2.40  |
| T₂         | 1.00 | 6.00  | 4.33 | 11.33 | 0.40 | 0.63  | 0.63 | 1.67  |
| T₃         | 1.00 | 6.33  | 4.00 | 11.33 | 0.40 | 1.60  | 0.57 | 2.57  |
| T₄         | 1.33 | 12.67 | 5.00 | 19.00 | 0.47 | 1.83  | 0.65 | 2.95  |
| T₅         | 1.00 | 6.67  | 3.67 | 11.33 | 0.40 | 1.60  | 0.53 | 2.53  |
| T₆         | 1.33 | 10.67 | 3.67 | 11.33 | 0.47 | 1.80  | 0.63 | 2.90  |
| T₇         | 1.00 | 5.00  | 4.33 | 10.33 | 0.40 | 1.70  | 0.67 | 2.77  |
| T₈         | 1.33 | 5.33  | 2.33 | 9.00  | 0.47 | 1.53  | 0.50 | 2.50  |
| T₉         | 1.67 | 7.67  | 3.33 | 12.67 | 0.57 | 1.67  | 0.53 | 2.77  |
| T₁₀        | 1.33 | 6.67  | 2.67 | 10.67 | 0.47 | 1.60  | 0.53 | 2.60  |
| T₁₁        | 2.00 | 9.00  | 4.00 | 15.00 | 0.60 | 1.73  | 0.60 | 2.93  |
| T₁₂        | 1.00 | 6.33  | 4.00 | 11.33 | 0.40 | 1.60  | 0.60 | 2.60  |
| LSD at 5%  | NS   | 6.41  | NS   | -     | 0.01 | NS   | NS   | -     |

observed in 4 ton Vermicompost ha⁻¹ + N₂₃P₁₀K₂₅ kg ha⁻¹ and lowest in control (0.40 g plant⁻¹). Chilli is a rich source of vitamins A, C and E where 100 g of edible portions contains 24 kcal of energy, 1.3 g of protein, 4.3 g of carbohydrate and 0.3 g of fat(20,24). Results revealed that the overall growth and yield performance of red capsicum were better in T₄: 4 ton Trichocompost ha⁻¹ + N₂₃P₁₀K₂₅ kg ha⁻¹ treatment.

Acknowledgements

Authors would like to thank to Mr. Md. Ashrafuzzaman, Agriculture Extension Officer, Pirgacha, Rangpur for his kind help and support.

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(Manuscript received on 15 August, 2021; accepted on 25 November, 2021)