Figure1a: Dark green microalgal culture was isolated from surface water by using aseptic collection procedures.

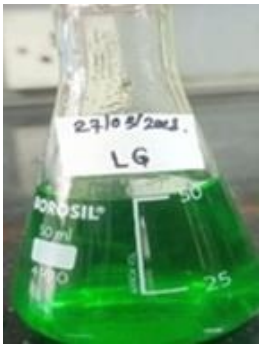
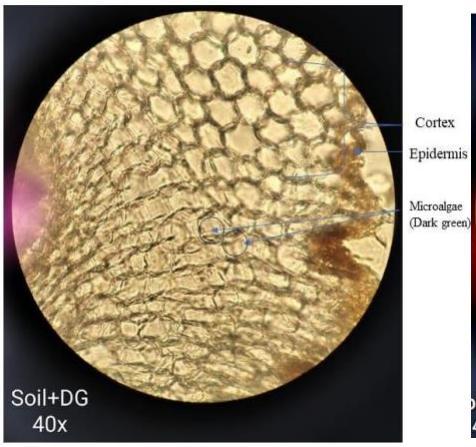
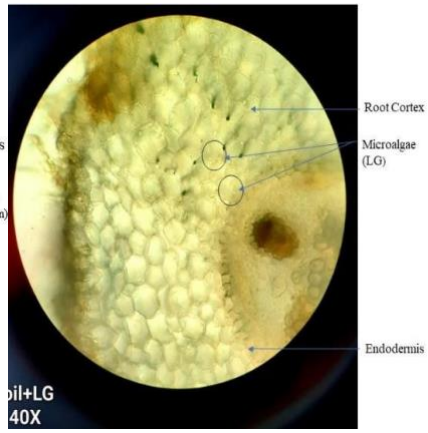


Figure 1b: Light green microalgal culture was isolated from surface water using aseptic collection procedures.

Figure 1c :Bmt cya mi-microalgal culture was isolated from surface water using aseptic collection procedures.

Figure 2: *Trigonellafoenum-graecum* L. plants were cultivated under three treatment conditions. Top two rows show Soil+ fenugreek, middle two rows show Soil+ fenugreek + Algae and bottom two rows show Soil+ fenugreek + Algae + unknown Biofertilizer treatment conditions.





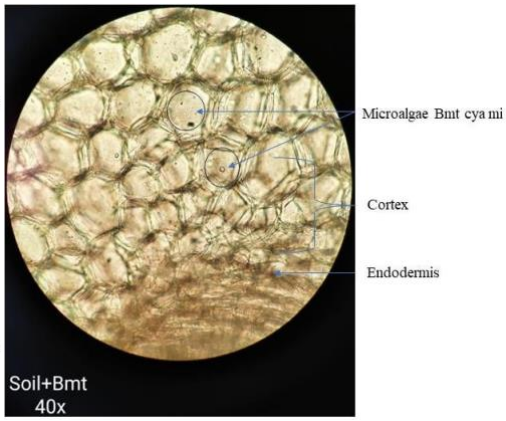


Figure 3 (a) **Figure 3 (b)** **Figure 3 (c)**

Figure 3: Microscopic view of root association of microalgae (Set 1 of Soil). a-Dark Green Microalgae observed in association with *Trigonell afoenum-graecum* L. root under 40X objective. b-Light Green Microalgae observed in association with *Trigonella foenum-graecum* L. root under 40X objective. C-*Bmt cya mi* Microalgae observed in association with *Trigonella foenum-graecum* L. root under 40X objective.

Figure 4 (a) **Figure 4 (b)** **Figure 4 (c)**

Figure 4: Comparative assessment of *Trigonella foenum-graecum L.* plants treated with -a. Soil with *Trigonella foenum-graecum* L. supplemented with Dark Green microalgae. b. Soil with *Trigonella foenum-graecum* L. supplemented with Light Green microalgae. c. Soil with *Trigonella foenum-graecum* L. supplemented with *Bmt cya mi* microalga

Table1:Addition of biostimulants to the plants

Microalgae	Average optical density	Average cells count 10^6
Dark Green	0.482576923	1.120092308
Bmtcyami	0.326469231	1.198115385
Light Green	0.410915385	1.0517

Table 2: Optical density at different wavelengths of microalgal cultures.

	Optical density at different wavelengths (nm)			
Microalgae	480	630	645	663
Dark Green	0.5819	0.5698	0.5556	0.5634
Light green	0.3522	0.3468	0.3451	0.3436
Bmt cya mi	0.3724	0.3618	0.3572	0.3595
NPK	0.2134	0.2096	0.2128	0.2131

Table 3: Chlorophyll content analysis of leaves of microalgal cultures

	Chlorophyll content of leaves		
Microalgae	**Chl a (µg/ml)**	**Chl b(µg/ml)**	**Carotenoid(µg/ml)**
Dark Green	**5.44335**	**6.302934**	**2.3276**
Light green	**3.306108**	**3.979031**	**1.4088**
Bmt cya mi	**3.467298**	**4.087772**	**1.4896**
NPK	**2.052276**	**2.472098**	**0.8536**