Table 1

Area	*Number of AMF spores / 1Kg*
Mahabalipuram	48
ECR Road	64
Tambaram	22

Figure 1: AMF Spore Identification, *Glomus aggregatum*- 120µm

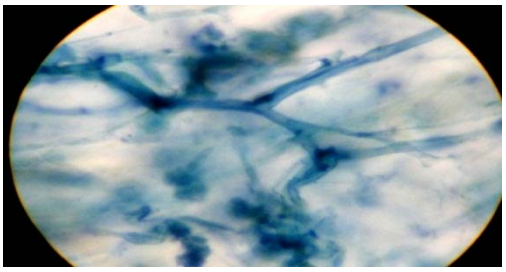

Figure 2: Arbuscules- 100x

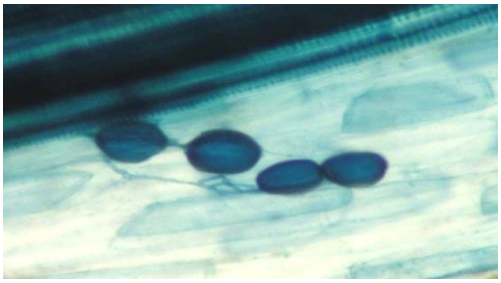

Figure 3: Vesicles- 100x

Based on Walker 1983, *Glomus aggregatum* was identified and multiplied (Fig. 1) (Fig 2 and Fig.3)

***Glomus aggregatum* associated Trap Culture with Different Concentration of Phosphate**

Figure 4: Trap culture of *Allium cepa*

Figure 5: Morphological parameter

Pot 1 – 0.01% phosphate concentration; **Pot 2** – 0.02% phosphate concentration; **Pot 3** – 0.03% phosphate concentration; **Pot C –** Control

Table 2: Morphological Parameters of AMF Associated *Allium cepa*

Treatment of Length of plant (P) mg/100g (cm)	Fresh weight of root (g)	Dry weight of root (g)
C 14.8	6.79	1.21
0.01 15.2	6.90	1.29
0.02 15.4	10.81	2.83
0.03 16.7	12.14	2.97

Assessment of *Glomus aggregatum* Association with *Allium cepa*

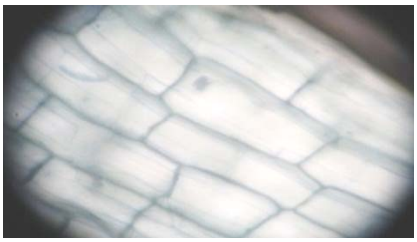

Figure 6: Control

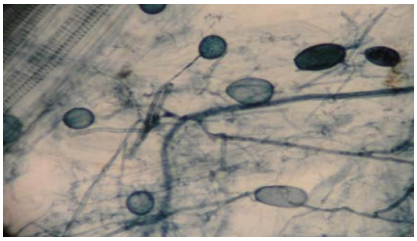

Figure 7: 0.01% phosphate concentration

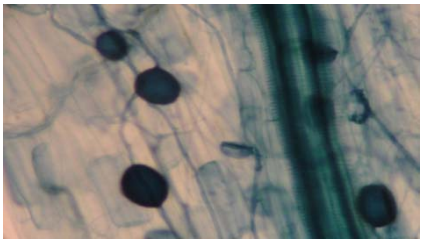

Figure 8: 0.02% phosphate concentration

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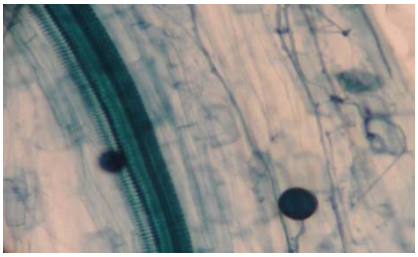

Figure 9: 0.03% phosphate concentration

Table 3: Assessment of *Glomus aggregatum* Association with *Allium cepa* in Different Concentration of Phosphate

Phosphate concentration in trap culture mg/100g	Percentage of *Glomus aggregatum* association
0.01	64%
0.02	52%
0.03	34%

Out of three concentration of phosphate 0.01% (mg/100g) soil proved to be the highest percentage of association, 64% association of *Glomus aggregatum* with host plant were evaluated. 52% at 0.02% of phosphate and the least was 0.03% (Fig. 4, 5,6,7,8 and 9) (Tab. 2 and 3).

Table 4: Protein Profile of *Glomus aggregatum* Associated with *Allium cepa* in Different Concentration of Phosphate

Phosphate concentration mg/L	*Protein concentration µg/µl*
.01	32
0.02	20
0.03	12

Proteins from *Glomus aggregatum* associated host plants at different concentration of phosphate were estimated by Lowry's method followed by SDS PAGE analysis.(Tab. 4) (Fig. 10).

Figure 10: SDS Page Analysis of Proteins from *Glomus aggregatum* Associated with *Allium cepa* in Different Concentration of Phosphate

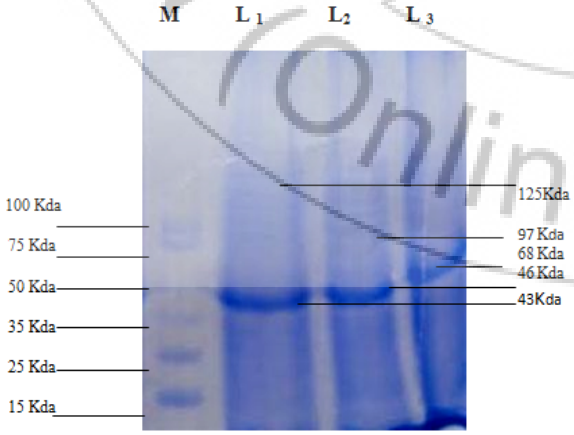

Figure 10: M- Protein marker; **L1**- 0.01% phosphate concentration**; L2**- 0.02% phosphate concentration; **L3**- 0.03% phosphate concentration

4. Conclusion

It concluded from this study that when the concentration of phosphate increases it will result in the decrease of colonization of mycorrhizal fungi. At 0.01% (mg/100g) concentration of phosphate evaluated more percentage of association with *Glomus aggregatum*. 0.01% (mg/100g) phosphate in soil concentration has shown more length and fresh weight of host plant growth and protein concentration also higher in lower level of phosphate.

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