

between *Trichoderma* and pathogen (*Pythium aphanidermatum*) at centre technique, range of inhibition was observed between 75 and 98%. *T. harzianum* showed highest inhibition against *P. aphanidermatum* (98%);

followed by *Trichoderma viride* (90%) and least by *T. longibrachiatum* (75%). While, *T. asperellum* (85%) showed less inhibition percentage than *T. viride* against *P. aphanidermatum* (Table 2).

Table 2: Effect of different seed treatments on quality of chilli seeds

T. No.	Treatment	Germi-nation %	Root length (cm)	Shoot length (cm)	Seedling length (cm)	Dry weight (mg)	Vigour index -I	Vigour index II
T1.	<i>T. harzianum</i> (Th Azad)	94%	5.52	5.25	10.77	0.35	506.19	16.45
T2.	<i>T. viride</i> (01PP)	90%	5.30	5.10	10.40	0.33	468.00	14.85
T3.	<i>T. asperellum</i> (T _{asp} (CSAU)	78%	5.35	5.28	10.63	0.32	414.75	12.48
T4.	<i>T. longibrachiatum</i> (21PP)	68%	4.80	4.75	9.55	0.31	324.70	10.54
T5.	Control	56%	4.92	3.85	8.77	0.28	245.56	07.84

The experimental results of different seed treatments in chilli revealed different significant responses against all the seven seed quality attributes viz. germination, shoot length, root length, seedling length, seedling dry weight, vigour index I and vigour index II (Table-2). T₁ treatment (*T. harzianum* (Th Azad) was found to be significantly superior and effective in increasing 10.39 per cent more germination of chilli from control followed by T₁ (94%), T₂ (90%), T₃ (78%) and T₄. Similarly, the beneficial impact of seed treatment was also recorded for root length, shoot length, seedling length and dry weight vigour index-I and vigour index-II in which T₁ treatment excelled overall significant superior performance by contributing 5.52 cm, 5.25 cm, 10.77 cm, 0.35 mg, 506.19 and 16.45, respectively followed by T₂ treatment (*T. viride*) for all these physiological attributes by contributing 5.30 cm, 5.10 cm, 10.40 cm, 0.33 mg, 468.00 and 14.85 as root length, shoot length seedling length, dry weight vigour index-I and vigour index-II respectively. Least performance was given by *Trichoderma asperellum* in all seven quality attributes. Cokkizgin & Cokkizgin [18] reported germination and vigour index in lentil. Singh *et al.* [19] also investigated to know the impact of pre-sowing seed treatment on germination, seedling establishment, seedling dry weight and vigour in lentil genotype (KLB 320). The various pre-sowing seed treatments showed different responses against all seven seed quality attributes and also supported by Shahid *et al.* [20] in case of chickpea seed treatment.

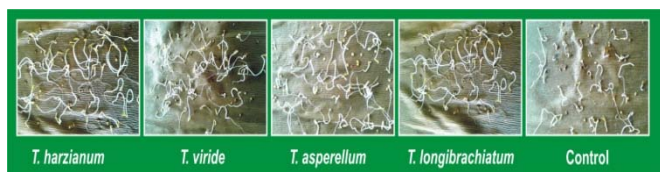


Figure 5: Effect of different seed treatments

4. Conclusion

The antagonist *Trichoderma* not only suppresses the growth of pathogen and controls the disease, but also has expresses growth promoting effects in plants. It can be concluded from this study that out of five treatments including control, T₁ treatment (*Th Azad*) is the best seed treatment to enhance the quality parameters of chilli seeds that can be helpful in increasing its yield even in adverse environmental conditions.

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