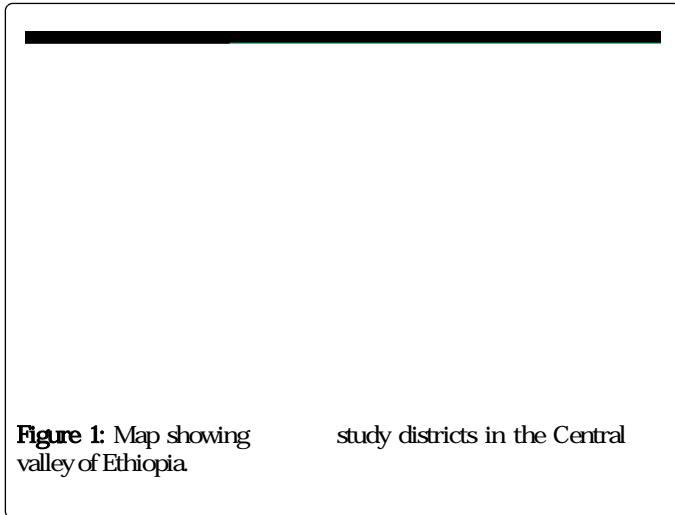


Distribution and Relative Importance of Hot Pepper *Fusarium* Wilt (*Fusarium oxysporium*)

district, 3 Farmers association were selected based on their potential for hot pepper production. Similarly, from each Farmers association, 5 farmer's were selected based on the potential of pepper production.

made along the two diagonals (in an "X" fashion) using 1 m² quadrants at approximately 20-50 m far apart from each other. In each 5 quadrants were systematically assigned to the respective points. From



Assessment of hot pepper *fusarium*wilt in the

*Fusarium*wilt incidence at each farmer's were assessed through direct visual observation of the typical FOC symptoms (slight vein clearing, leaf drooping, slight yellowing of lower leaves, browning of the vascular tissue and complete plant death). assessments were

ranging between 0% to 42%. Intermediate levels of HPFW incidence (43%-54%) were mainly recorded in some of Alaba, Mareko, Meskan and Adama districts.

Results of mean HPFW at district level revealed 46.5% in Mareko, 46.0% in Alaba, 42.9% in Meskan, 40.0% in Adama, 30.9% in Dugda and 15.1% in Admi Tullu Jiddo Kombolcha districts (Table 1). When we look at disease intensity at kebele levels, the highest (90.5%)

farmers in Alaba district, 77% use their own seed stored from previous

induced 100% disease incidence. For this reason, isolate 4DGK was as a master isolate for further pathological studies (Figure 3).




Figure 3 Pathogenicity test (picture taken sixty days inoculation); 4DGK *Fusarium* isolate (a and b); root dipping technique and transplanting (c and d); seedling death and vascular discoloration (e and f).

Summary and Conclusion

Hot pepper production is by many biotic and abiotic factors and among the biotic factors diseases has been as a major limiting factor. Among various diseases of hot pepper which caused by fungi, bacteria and viruses, *Fusarium* wilt caused by *Fusarium oxysporum* f.sp. *capsici* is the most common and causes qualitative and yield damages. present study was undertaken in order to assess the distribution and relative importance of *Fusarium* wilt of hot pepper and associated agronomic factors disease intensity in the central Valley of Ethiopia

In summary, distribution and intensity of *Fusarium* wilt, with 15.1, 30.9, 40.0, 42.9, 46.0 and 46.5% wilt incidence in Adami Tullu Jiddo Kombolcha, Dugda, Adama, Meskan, Alaba and Mareko districts, respectively. highest wilt incidence was recorded in Alaba (90.5%) district and lowest wilt incidence were recorded in Adami Tullu Jiddo Kombolcha (2%) district. variation of wilt incidence might be associated with several agronomic practices such as the source of planting material, on crop rotation, m M Aom-Ÿ

and integrated *fusarium* wilt management tactics is important for sustainability.

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