

Arvi-2 (32.9%) in *kharif* 2006 and NDC-61 (26.6%), NDC-26 (27.2%) and Narendra Arvi-2 (31.1%) in the *kharif* 2007, respectively. All the genotypes were significantly superior in protected conditions as compared to controlled condition. The results revealed NDC-61 as moderately susceptible to leaf blight in comparison to NDC-26 and Narendra Arvi-2 which were found highly susceptible genotype under protected and controlled condition in both the years. Maiti *et al.* (2011) reported similar results on yield loss on potato due to late blight disease.

References

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Effect of fungicidal seed and foliar applications on *Ascochyta* blight of Pea

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Pea (*Pisum sativum* L.) occupies an important position amongst the vegetable crops being grown in India. *Ascochyta* blight disease caused by *Ascochyta pisi* Lib. is of worldwide occurrence may cause substantial yield losses in pea which has been noted to the magnitude of up to 40%. This disease produces mainly slightly sunken and circular lesions on the leaves of this crop. Since the pathogen survives mainly through seeds treatment of seed with effective fungicides can greatly help in reducing the seed-borne inoculum. Attempts have been made to eradicate the pathogen from infected seeds by using fungicides.

The field trials were conducted in R.B.D. using cv. Bonne ville with three replications at Faculty of Agriculture and Regional Research Station, Wadura, Sopore (J& K) during *rabi* season. The plot size

was 3.6 x 2.4m. The row to row and plant to plant distance was 45 and 30 cm, respectively. The 11 fungicides used as seed treatment and two foliar sprayings were done with recommended dose. The first spray of the fungicides in same dose was given just after the appearance of the first disease symptoms and were repeated twice at an interval of 10 days. Water spray served as control. Disease severity was recorded after 15 days of the second spraying on the basis of % leaf area affected (0-5 disease scale). The percentage of reduction in disease severity and increase in grain yield over control was also calculated by standard formula (Singh & Singh, 2007). The data on effect of different fungicides on severity of *Ascochyta* blight as well as grain yield (q/ha) in pea are presented in Table 1.

Short Communication

Table 1. Effect of fungicides on severity of *Ascochyta* blight and grain yield of pea.

| Treatments with dose | Disease severity (%) | Reduction in disease severity (%) | Grain yield (q/ha) | Increase in yield (%) |
|----------------------------|----------------------|-----------------------------------|--------------------|-----------------------|
| Benomyl(0.05%) | 8.2 (16.71)* | 61.3 | 10.65 | 80.5 |
| Carbendazim (0.05%) | 10.4 (18.79) | 56.5 | 8.90 | 50.8 |
| Hexaconazole (0.03%) | 14.0 (22.02) | 49.1 | 8.35 | 41.5 |
| Diniconazole (0.03%) | 15.7 (23.39) | 45.9 | 7.85 | 33.0 |
| Thiram (0.2%) | 19.2 (26.02) | 39.8 | 7.40 | 25.4 |
| Captan (0.2%) | 20.6 (27.04) | 37.5 | 7.30 | 23.7 |
| Dodine** (0.06%) | 24.0 (29.34) | 32.1 | 7.0 | 18.6 |
| Copper oxychloride (0.25%) | 27.5 (31.63) | 26.9 | 6.75 | 14.4 |
| Mancozeb (0.2%) | 30.8 (33.75) | 22.0 | 6.55 | 11.0 |
| Zineb (0.2%) | 35.2 (36.45) | 15.7 | 6.40 | 8.4 |
| Ziram (0.2) | 38.1 (38.16) | 11.8 | 6.25 | 5.9 |
| Control | 46.9 (43.27) | - | 5.90 | - |
| SEm± | 0.55 | | 0.51 | |
| CD (P= 0.05) | 1.14 | | 1.05 | |

* Figures in parenthesis are transformed values.

** Dodine is the common name

All the fungicide treatments tested were found significantly superior in reducing the *Ascochyta* blight of pea over control. Among these, benomyl proved most effective fungicide against when used as seed treatment and two foliar sprays under field

conditions. This fungicide gave highest grain yield (10.65 q/ha) with disease severity (8.2%). Benomyl gave the better performance in order of superiority in yield increased (80.5%) over control and also reduced disease severity (61.3%) over check. Next best fungicide was carbendazim which gave encouraging results in controlling disease severity (10.4%) with grain yield (8.90 q/ha) and increased in yield (50.8%) and reduced disease severity (56.5%) over check. Carbendazim, hexaconazole, diniconazole, thiram and captan were found statistically on par only in case of grain yield. Ziram was least effective fungicide with minimum grain yield (6.25 q/ha) with disease severity (38.1%).

Khan and Khan (2006) recorded that seed treatment followed by spray with benomyl were most effective. Singh and Singh (2011) also reported that carbendazim and benomyl were the superior most in controlling the *Myrothecium* leaf spot disease of pigeon pea and gave better performance in order of superiority in yield over control. Present study can serve as a handy recommendation for the farmers of J.&K. who can use benomyl (0.05%) for seed treatment and two foliar applications against *Ascochyta* blight of pea at tendril formation stage. This recommendation can also be incorporated as an essential component in I.D.M. of *Ascochyta* blight of pea.

References

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