

Research Notes

Screening of groundnut cultures against rust and late leaf spot diseases of groundnut

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Peanut is an important oilseed crop grown in India. Rust (*Puccinia arachidis*) and late leaf spot (*Phaeisariopsis personata*) are the major important foliar fungal diseases. Late leaf spot occurs regularly along with rust throughout Semi Arid Tropics and results in yield loss up to 70 per cent (Mc Donald *et al.*, 1985). There is a need to identify the alternate strategies to manage these diseases, so as to obtain higher economic return from groundnut. Therefore the present study was conducted to find out the disease resistant donors for evolving disease resistant varieties.

Field experiments were carried out during *rabi* / summer 2006 - 07 at Coconut Research Station, Aliyarnagar, Tamil Nadu. The experiment was conducted in a randomized block design with three replications. The test entries of groundnut were sown in 5 x 3 m² plots with the susceptible check CO 2. The test entries were sown in 3 m length in between two lines of CO 2 so as to provide adequate inoculum and uniform disease pressure. As screening is carried out under natural unprotected field condition no fungicide was sprayed in all the screening trials. Plants were observed

Table 1. Reaction of groundnut cultures against rust and late leaf spot diseases

Sl.No.	Entries	Rust (grade)	LLS (grade)
1.	INS-1-2006-1	6.5	6.0
2.	INS-1-2006-2	6.8	6.6
3.	INS-1-2006-3	6.1	5.6
4.	INS-1-2006-4	6.5	7.0
5.	INS-1-2006-5	1.3	3.0
6.	INS-1-2006-7	6.5	6.0
7.	INS-1-2006-8	6.8	6.1
8.	INS-1-2006-9	6.8	6.3
9.	INS-1-2006-10	5.5	2.6
10.	INS-1-2006-11	5.5	5.3
11.	INS-1-2006-12	5.3	5.0
12.	INS-1-2006-13	4.6	4.3
13.	INS-1-2006-14	6.5	6.0
14.	INS-1-2006-15	6.8	6.6
15.	INS-1-2006-16	6.1	5.6
16.	INS-1-2006-17	6.5	7.0
17.	INS-1-2006-18	5.6	3.6
18.	AIS-2006-1	4.6	3.6
19.	AIS-2006-2	5.9	6.3

Table 1. Contd...

Sl.No.	Entries	Rust (grade)	LLS (grade)
20.	AIS-2006-3	5.9	4.8
21.	AIS-2006-4	5.5	6.0
22.	AIS-2006-5	7.5	7.0
23.	AIS-2006-6	7.5	7.0
24.	AIS-2006-7	7.5	7.0
25.	AIS-2006-9	5.5	5.8
26.	AIS-2006-10	6.5	6.6
27.	AIS-2006-11	3.5	2.0
28.	AIS-2006-12	7.5	8.0
29.	AIS-2006-13	6.8	7.0
30.	AIS-2006-14	5.5	5.1
31.	INS-1-2005-1	7.3	6.0
32.	INS-1-2005-2	7.2	6.8
33.	INS-1-2005-3	6.5	6.6
34.	INS-1-2005-4	5.5	6.5
35.	INS-1-2005-5	4.8	5.2
36.	INS-1-2005-6	5.5	6.5
37.	INS-1-2005-7	6.5	6.5
38.	INS-1-2005-8	6.6	6.8
39.	INS-1-2005-9	6.8	7.0
40.	INS-1-2005-10	6.5	7.0
41.	INS-1-2005-11	5.5	7.0
42.	INS-1-2005-12	7.5	7.5
43.	INS-1-2005-13	7.0	7.0
44.	INS-1-2005-14	5.5	5.5
45.	INS-1-2005-15	7.5	7.5
46.	INS-1-2005-16	1.0	2.0
47.	INS-1-2005-17	7.5	8.0
48.	INS-1-2005-20	5.5	6.0
	CO 2	8.3	8.8

for the incidence of rust and late leaf spot diseases and the observation was recorded on 70, 90 and 105 DAS based on 1-9 scale as adopted by ICRISAT (Subrahmaniyam *et al.*, 1995).

Among the 48 groundnut entries screened the entries *viz.*, INS-1-2006-5 and INS-1-2005-16 are found to be resistant to rust (grade 1.3 and 1.0 respectively) and late leaf spot

(grade 3.0 and 2.0 respectively). Other two entries *viz.*, INS-1-2006-10 and AIS-2006-11 are found to be resistant to late leaf spot disease alone (grade 2.6 and 2.0 respectively). The susceptible variety CO 2 recorded grade 8.3 for rust and 8.8 for late leaf spot diseases (Table 1). Several fungicides are effective in controlling these diseases, but a more effective, less expensive and environmentally sound means of control would be the use of disease

resistant cultivars. The groundnut entries, which are identified as resistant, are to be used in breeding programme to evolve disease resistant variety.

References

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Research Notes

Adoption of improved practices in mango cultivation by small and big farmers in Dharmapuri district

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Fruit crop cultivation is a new trend for the farmers of dryland areas. Due to the frequent field crop failures in several parts of the state in recent times and of good progress made in dryland horticulture research, majority of the dryland farmers made an attempt to shift from usual crop farming to growing of fruit orchards in their lands. Mango cultivation has been a component of the dryland horticulture and being given importance at this diversion. Under mango improvement programme, researchers have recommended improved technologies for higher production. Farmers extent of adoption on the improved practices of mango cultivation is inevitable to boost up the production of mango.

Keeping this in view, an attempt was made to study the level of adoption of the mango growers with respect to the recommended technologies and also problems faced by them.

In Tamil Nadu, Dharmapuri district is having maximum area under mango cultivation. Hence, this district was selected purposively for the study. From this, two blocks were selected and two villages in each of the selected block was chosen based on the maximum area under mango, the sample were drawn using proportionate random sampling method from the four selected villages. A sample size of 120 respondents were studied. The data were collected through a well structured interview