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Pawar VB
Department of Agril. Entomology, College of Agriculture, Latur, Maharashtra, India

Mutkule DS
Senior Research Scientist, Agriculture Research Station, Badnapur, Maharashtra, India

Gambhire VS
Department of Agril. Entomology, College of Agriculture, Latur, Maharashtra, India

Bobade SS
Department of Plant Pathology, College of Agriculture, Latur, Maharashtra, India

Magar S. M
Department of Agril. Entomology, College of Agriculture, Latur, Maharashtra, India

Corresponding Author:
Pawar VB
Department of Agril. Entomology, College of Agriculture, Latur, Maharashtra, India

Screening of groundnut genotypes and abundance of groundnut pod

Pawar VB, Mutkule DS, Gambhire VS, Bobade SS and Magar SM

Abstract
Screening of groundnut (*Arachis hypogaea* L.) genotypes against pod borers, was conducted during *rabi* 2020-2021 at Oilseed Research Station, Department of Agricultural Entomology, Latur. The overall results indicated that the earwig damage range in between 0 to 16.25 percent. Lowest earwig damage were recorded on genotype STVT-I-2020- 01 (0.00%), STVT-I-2020-07 (0.00%), HOVTSTB-I-2020-07 (0.00%) and HOVTVGI-2020-07 (0.00%) respectively were highly resistant genotype. Highest number of pods damage by earwig were recorded on TSB-I-2020-09 (16.25%) followed by ISKI-2020-06 (15%), ISK-I-2020-29 (15%). Wireworm damage range in between 0 to 17.75 percent. Lowest wireworm damage were recorded on genotype STVT-I-2020-01 (0.00%), STVT-I2020-07 (0.00%), HOVTSTB-I-2020-07 (0.00%) and HOVTVG-I-2020-07 (0.00%) respectively and these were highly resistant genotype. Highest number of wireworm damage pods were recorded on TSB-I-2020-09 (17.75%) followed by ISK-I-2020-29 (16.5%), ISK-I- 2020-06 (16.25%). Sub. ants damage range in between 0 to 16.75 percent. Lowest damage of Sub. ants were recorded on genotype STVT-I-2020-01 (0.00%), STVT-I2020-07 (0.00%), HOVTSTB-I-2020-07 (0.00%) and HOVTVG-I-2020-07 (0.00%) respectively were highly resistant genotype. Highest number of sub. ants damage pods were recorded on IVK-I-2020-05 (16.75%) followed by IVK-I-2020-05 (16.75%), ISK-I-2020-12 (16.5%).

Keywords: Earwig, wireworm, subterranean ants, genotypes, groundnut, damage

Introduction
Groundnut (*Arachis hypogaea* L), is an important oilseed and ancillary food crop of the world belongs to genus Arachis tribe Aeschynomene, family Fabaceae, is a tetra foliate legume crop with yellow sessile flowers and subterranean pods. It is originated in South America, probably in Brazil. It is Derived by two Greek words "Arachis" means legume and "hypogaea" means below the ground. Groundnut is also called as earthnuts, peanuts, manila nut, moongfali, goobers pindar and monkey-nut. The groundnut seeds are rich source of edible oil (48 to 50 percent), protein (26 to 28 percent) and also a valuable source of dietary fiber, minerals and vitamins namely B, E and K (Smith, A. F. 2002) [7]. Among the total fatty acid in groundnut oil Oleic acid and linoleic acid accounts for 75 to 80 percent of the total fatty acid in groundnut oil (Mercer *et al.*, 1990) [6]. In 2019 area under cultivation in country was 4.73 million ha, production 6.72 million tonnes and productivity 1647.4 kg/ha (AGRISTAT, 2019-20) [1]. Productivity of groundnut is very low (1422kg/ha) in India when compared to the productivity of world 16.74.4 kg/ha. Six states namely Andhra Pradesh, Gujarat, Karnataka, Maharashtra, Rajasthan and Tamil Nadu account for about 90 percent of the total groundnut area of the country. In Maharashtra area was 0.28 million ha production 0.32 million ton and productivity 1148.8 kg/ha. (Krishi.maharashtra.gov.in 2019-20). The groundnut pod borers mostly include a wide group of insects belonging to different orders of class Insecta. They are mainly the earwigs, termites, wireworms, white grubs, subterranean ants, etc. Common problem often encountered in pod borer studies is finding the causal organism at the damage site. Losses caused by groundnut pod borers (Earwig- 2.7 to 19.95% (Cherian and Basheer, 1940) [2], one White grub/3 m. row caused a loss of pods equal to 44kg/ha (Gough and Brown, 1988) [3], Termite 46% (Kaushal and Deshpande, 1967), Wireworms 35% (Wightman *et al.*, 1990) [8] and Subterranean ants 15-48% with an average of 31.6% (Keerati-kasikorn and Singha, 1986) [5]. The groundnut pod borers mostly include a wide group of insects belonging to different orders of class Insecta. They are mainly the earwigs, termites, wireworms, white grubs, subterranean ants, etc. Common problem often encountered in pod borer studies is finding the causal organism at the damage site. Based on the damage symptoms, determining the pest is not an easy task unless one has a clear picture of the species involved.

Material and Methods

Present investigation on groundnut was carried out to study Screening of groundnut genotypes and abundance of groundnut pod borers at Department of Agricultural Entomology, Oilseeds Research Station, Latur (MS)-India during *Rabi*, 2020 in randomized block design. The 92 genotype were screened in the field under natural condition to find out the resistance against groundnut pod borers. Each genotype was grown in individual gross plot of size 0.30 x 5.0 sq. m. maintaining net plot of 0.30 x 4.8 sq. m. with LGN-1 as susceptible check after every 12th entry in 4.2 m row length with spacing of 30 × 10 cm in two replications. Observations of pod borers damage were recorded on different genotypes of groundnut at the time of harvesting of the crop. The data was converted to percent damage by using this formula.

$$\text{Percent damage} = \frac{\text{Total No. of pods infested by pod borers}}{\text{Total Number of pods in each genotype}} \times 100$$

Results and Discussion

Ninety two genotypes of groundnut were screened for against earwig, wireworm and subterranean ants through a field trail during *rabi* 2020-2021. The data on percent pod damage on earwig, wireworm, subterranean ants is presented in the table 1.

Data presented in the table 1 revealed that the earwig, wireworm, subterranean ants incidence were observed. Earwig damage range in between 0 to 16.25 percent. Lowest earwig damage was recorded on genotype STVT-I-2020-01 (0.0%), STVT-I-2020-07 (0.0%), HOVTSB-I-2020-07 (0.0%) and HOVTVG-I-2020- 07 (0.0%) respectively and these were highly resistant genotype. Highest number of pods damage by earwig were recorded on TSB-I-2020-09 (16.25%) followed by ISKI-2020-06 (15%), ISK-I-2020-29 (15%). Wireworm damage range in between 0 to 17.75 percent. Lowest wireworm damage was recorded on genotype STVT-I-2020-01 (0.0%), STVT-I-2020- 07 (0.0%), HOVTSB-I-2020-07 (0.0%) and HOVTVG-I-2020-07 (0.0%) respectively and these are highly resistant genotype. Highest number of wireworm damage pods were recorded on TSB-I-2020-09 (17.75%) followed by ISK-I-2020-29 (16.5%), ISKI-2020-06 (16.25%). Subterranean ants damage range in between 0 to 16.75 percent. Lowest damage of Sub. Ants were recorded on genotype STVT-I-2020-01 (0.0%), STVT-I-2020-07 (0.0%), HOVTSB-I-2020-07 (0.0%) and HOVTVG-I-2020-07 (0.0%) respectively and these were highly resistant genotype. Highest number of subterranean ants damage pods were recorded on IVK-I-2020-05 (16.75%) followed by IVK-I-2020-05 (16.75%), ISK-I-2020-12 (16.5%).

Table 1: Percentage infestation of groundnut pod borers in different genotypes of groundnut

Sr. No.	Genotypes	Earwig	Wireworm	Sub. ants
1	ISK-I-2020-18	6.5 (14.75)	5.5 (13.54)	7.5 (15.87)
2	ISK-I-2020-21	6.5 (14.75)	8.25 (16.68)	7.25 (15.60)
3	ISK-I-2020-10	11.5 (19.81)	12.75 (20.90)	13.5 (21.54)
4	ISK-I-2020-05	5.5 (13.54)	7.25 (15.60)	7.5 (15.87)
5	ISK-I-2020-06	15 (22.72)	16.25 (23.76)	15.75 (23.36)
6	ISK-I-2020-19	4.5 (12.22)	7.25 (15.60)	5.5 (13.54)
7	ISK-I-2020-22	10.75 (19.11)	11.75 (20.02)	13 (21.11)
8	ISK-I-2020-11	4.5 (12.22)	3.75 (11.14)	4.75 (12.53)
9	ISK-I-2020-29	15 (22.77)	16.5 (23.95)	14.75 (22.55)
10	ISK-I-2020-30	11.25 (19.58)	12.25 (20.47)	13.5 (21.54)
11	ISK-I-2020-09	12.75 (20.90)	13.25 (21.33)	14.75 (22.56)
12	ISK-I-2020-24	9 (17.45)	10.25 (18.66)	12 (20.25)
13	ISK-I-2020-16	12.25 (20.47)	14.75 (22.56)	10.75 (19.11)
14	ISK-I-2020-01	7.75 (16.15)	10.5 (18.89)	12 (20.25)
15	ISK-I-2020-27	3.5 (10.75)	6.5 (14.75)	12.25 (20.47)
16	TSB-I-2020-09	16.25 (23.76)	17.75 (24.90)	14.75 (22.57)
17	STVT-I-2020-10	11 (19.35)	10 (18.41)	14.75 (22.55)
18	STVT-I-2020-17	11.25 (19.51)	14 (21.96)	15.5 (23.16)
19	STVT-I-2020-01	0	0	0

		(0.00)	(0.00)	(0.00)
20	STVT-I-2020-06	8 (16.40)	9.75 (18.17	10.75 (19.11)
21	ISK-I-2020-32	10.5 (18.89)	16.25 (23.7)	17.5 (24.71)
22	ISK-I-2020-26	12.25 (20.47)	14.5 (22.3)	15.75 (23.37)
23	HOVTVG-I-2020-02	4 (11.48)	3 (9.90)	8.5 (16.93)
24	LSVT-I-2020-04	6.5 (14.75)	8 (16.4)	7.5 (15.87)
25	IVK-I-2020-06	6 (14.14)	8.5 (16.9)	10 (18.41)
26	IVK-I-2020-23	7.25 (15.49)	6.75 (15.0)	5.75 (13.85)
27	HOVTSB-I-2020-05	4.5 (12.22)	5.75 (13.8)	8.5 (16.93)
28	STVT-I-2020-14	10.5 (18.89)	13 (21.1)	12 (20.52)
29	STVT-I-2020-12	14 (21.95)	9 (17.4)	12.5 (20.69)
30	IVK-I-2020-15	10 (18.41)	6 (14.1)	7.5 (15.87)
31	STVT-I-2020-07	0 (0.00)	0 (0.00)	0 (0.00)
32	ISK-I-2020-02	11 (19.35)	7.5 (15.8)	14.5 (22.370
33	LSVT-I-2020-03	4.5 (12.22)	7.5 (15.8)	9 (17.43)
34	HOVTSTB-I-2020-07	0 (0.00)	0 (0.00)	0 (0.00)
35	ISK-I-2020-20	3.5 (9.34)	1.5 (5.95)	2.75 (8.25)
36	IVK-I-2020-03	1 (2.88)	0.5 (2.03)	0.75 (2.49)
37	IVK-I-2020-12	9 (17.43)	6 (14.1)	13.5 (21.54)
38	IVK-I-2020-25	8.5 (16.93)	10.5 (18.8)	10 (18.41)
39	STVT-I-2020-08	6.75 (15.04)	8 (16.4)	7.75 (16.15)
40	STVT-I-2020-15	11.5 (19.81)	14 (21.9)	11.5 (19.81)
41	LSVT-I-2020-01	3.5 (10.75)	2 (7.99)	5 (12.91)
42	STVT-I-2020-05	9.25 (17.69)	8 (16.4)	0 (0.00)
43	IVK-I-2020-05	7 (15.13)	10.5 (18.89)	16.75 (24.14)
44	STVT-I-2020-13	9.5 (17.93)	8 (16.4)	6.5 (14.7)
45	HOVTSTB-I-2020-03	5 (12.88)	7.5 (15.8)	6.25 (14.7)
46	ISK-I- 2020-08	3 (9.90)	2.5 (9.04)	5 (12.8)
47	ISK-I- 2020-13	8 (16.40)	9 (17.4)	10.5 (18.8)
48	IVK-I-2020-21	11 (19.35)	9 (17.4)	11.5 (19.8)
49	IVK-I-2020-09	8.5 (16.93)	9.5 (17.9)	10.5 (18.8)
50	IVK-I-2020-07	10.5 (18.93)	4.5 (12.2)	12 (20.2)
51	IVK-I-2020-18	12.5 (20.69)	14.25 (22.1)	12 (20.2)
52	IVK-I-2020-13	3 (9.90)	6 (14.1)	9 (17.)

53	IVK-I-2020-01	8.5 (16.93)	11.5 (19.8)	9 (17.4)
54	LSVT-I-2020-08	5.75 (13.83)	5.25 (13.1)	3.75 (11.0)
55	HOVTSTB-I-2020-02	3 (9.90)	2.75 (9.43)	5.5 (13.5)
56	ISK-I-2020-12	15 (22.66)	15 (22.7)	16.5 (23.9)
57	IVK-I-2020-19	5 (12.88)	3.5 (10.7)	8.5 (16.9)
58	HOVTSTB-I-2020-08	5.25 (13.23)	3.5 (10.7)	2 (7.99)
59	HOVTVG-I-2020-03	2.5 (9.04)	2.5 (9.04)	4.5 (12.2)
60	STVT-I-2020-02	6 (14.14)	7.5 (15.8)	8 (16.4)
61	IVK-I-2020-11	7.5 (15.87)	8.5 (16.9)	11 (19.3)
62	IVK-I-2020-10	15 (22.72)	16 (23.5)	17 (24.3)
63	LSVT-I-2020-07	7 (15.31)	6 (14.1)	9 (17.4)
64	IVK-I-2020-20	8 (16.40)	9.5 (17.9)	5.5 (13.5)
65	ISK-I-2020-14	6.5 (14.75)	12.5 (20.6)	10 (18.4)
66	ISK-I-2020-15	12.5 (20.69)	11 (19.3)	13.5 (21.5)
67	HOVTVG-I-2020-08	3.5 (10.75)	2.25 (8.58)	7.25 (15.5)
68	LSVT-I-2020-02	4 (11.48)	3 (9.90)	6 (14.14)
69	HOVTVG-I-2020-04	3.5 (10.75)	2 (7.99)	7 (15.13)
70	HOVTSTB-I-2020-04	5.25 (13.75)	7 (15.3)	10.5 (18.89)
71	HOVTVG-I-2020-09	2 (7.99)	5 (12.8)	2 (7.99)
72	HOVTSTB-I-2020-06	5.5 (13.54)	6 (14.1)	6.5 (14.75)
73	HOVTSTB-I-2020-01	5 (12.88)	6.5 (14.7)	3.5 (10.75)
74	HOVTVG-I-2020-07	0 (0.00)	0 (0.00)	0 (0.00)
75	HOVTVG-I-2020-01	6.5 (14.75)	8.25 (16.6)	9.75 (18.18)
76	IVK-I-2020-22	5.25 (13.23)	6.25 (14.4)	7 (15.13)
77	IVK-I-2020-16	2 (4.10)	2.25 (4.36)	1.75 (3.83)
78	IVK-I-2020-14	1.25 (4.52)	2 (5.72)	2.75 (6.77)
79	IVK-I-2020-17	1.25 (4.52)	2 (5.76)	2.75 (6.77)
80	ISK-I-2020-20	3 (9.90)	5 (12.8)	5.75 (13.85)
81	STVG-I-2020-09	5.5 (11.74)	6.25 (12.5)	5.25 (11.48)
82	ISK-I-2020-23	8.5 (16.93)	6.5 (14.7)	6 (14.14)
83	STVT-I-2020-16	6 (14.14)	8.5 (16.9)	8.25 (16.66)
84	LSVT-I-2020-06	4 (11.48)	4.5 (12.2)	5.5 (13.54)
85	ISK-I-2020-07	10 (18.41)	9 (17.4)	6.5 (14.75)
86	STVT-I-2020-11	5 (12.88)	7 (15.3)	6 (14.14)
87	STVT-I-2020-03	4.5	6.5	5

		(12.22)	(14.7)	(12.88)
88	STVT-I-2020-04	4.75 (12.57)	7 (15.3)	10.5 (18.89)
89	IVK-I-2020-04	7.5 (15.87)	4.5 (12.2)	9 (17.43)
90	ISK-I-2020-04	3 (9.90)	2 (7.99)	4.5 (12.22)
91	ISK-I-2020-13	8 (16.40)	9 (17.4)	10.5 (18.89)
92	LGN-01	8	7	6.75
		(16.40)	(15.3)	(15.0)
	C.D.	2.601	2.594	2.683
	SE(m)	0.934	0.931	0.963
	C.V.	12.997	12.51	12.510

Note: Figure in parenthesis are angular transformed value.

Screening of groundnut genotype against earwig

The results in respect of screening of groundnut genotypes against earwig are presented in Table 2.

Data presented in the table revealed that the Earwig incidence was observed. Earwig damage range in between 0 to 16.25 percent. Lowest earwig damage was recorded on genotype STVT-I-2020-01 (0.00%), STVT-I-2020- 07 (0.00%), HOVTSB-I-2020-07 (0.00%) and HOVTVG-I-2020-07 (0.00%) respectively these were highly resistant genotype. Highest number of pods damage by earwig were recorded on TSB-I-2020-09 (16.25%) followed by ISK-I-2020-06 (15%), ISK-I-2020-29 (15%).

The susceptible check was LGN-01 which has (8%) damage. Further the genotype were categorized into three different categories based on number of damage pods. Out of 92 genotype screened for Earwig incidence 15 entry was found 'Highly Resistant' against Earwig and 55 genotype lines were categorized as 'Moderately Susceptible' genotypes. 22 genotype were found as 'Highly susceptible' to infestation of earwig.

Table 2: Grouping of different groundnut genotypes based on their relative susceptibility to earwig

Pest	Less Susceptible (<Mean-SD)	Moderately susceptible (Mean-SD to Mean+SD)	Highly Susceptible (>Mean+SD)
Earwig Mean = 7.01 S. D. = 3.89	STVT-I-2020-01, STVT-I-2020-07, HOVTSB-I-2020-07, IVK-I-2020-03, IVK-I-2020-08, HOVTSB-I-2020-02, HOVTVG-I-2020-09, HOVTVG-I-2020-07, IVK-I-2020-16, IVK-I-2020-14, IVK-I-2020-17, ISK-I-2020-20, ISK-I-2020-04, ISK-I-2020-08, IVK-I-2020-13. (Value <3.12)	ISK-I-2020-18, ISK-I-2020-21, ISK-I-2020-05, ISK-I-2020-19, ISK-I-2020-11, ISK-I-2020-24, ISK-I-2020-01, ISK-I-2020-27, STVT-I-2020-06, HOVTVG-I-2020- 02, LSVT-I-2020-04, IVK-I-2020-06, IVK-I-2020-23, HOVTSB-I-2020- 05, IVK-I-2020-15, LSVT-I-2020-03, ISK-I-2020-20, IVK-I-2020-12, IVK-I-2020-25, STVT-I-2020-08, LSVT-I-2020-01, STVT-I-2020-05, IVK-I-2020-05, STVT-I-2020-13, HOVTSTB-I-2020- 03, ISK-I- 2020-13, IVK-I-2020-09, IVK-I-2020-01, LSVT-I-2020-08, IVK-I-2020-19, HOVTSB-I-2020- 08, STVT-I-2020-02, IVK-I-2020-11, LSVT-I-2020-07, IVK-I-2020-20, ISK-I-2020-14, HOVTVG-I-2020- 08, LSVT-I-2020-02, HOVTVG-I-2020-04, HOVTSB- I- 2020-06, HOVTSB-I-2020- 01, HOVTVG-I-2020- 01, IVK-I-2020-22, STVG-I-2020-09, ISK-I-2020-23, STVT-I-2020-16, LSVT-I-2020-06, ISK-I-2020-07, STVT-I-2020-11, STVT-I-2020-03, STVT-I-2020-04, IVK-I-2020-04, ISK-I-2020-13, LGN-01. (Value between 3.12-10.1)	ISK-I-2020-10, ISK-I-2020-06, ISK-I-2020-22, ISK-I-2020-29, ISK-I-2020-30, ISK-I-2020-09, ISK-I-2020-16, TSB-I-2020-09, STVT-I-2020-10, STVT-I-2020-17, ISK-I-2020-32, ISK-I-2020-26, STVT-I-2020-14, STVT-I-2020-12, ISK-I-2020-02, STVT-I-2020-15, IVK-I-2020-21, IVK-I-2020-21, IVK-I-2020-18, ISK-I-2020-12, IVK-I-2020-10, ISK-I-2020-15. (Value>10.1)

Screening of groundnut genotype against Wireworm

The results in respect of screening of groundnut genotypes against wireworm are presented in Table 3.

Data presented in the table revealed that the Wireworm incidence was observed. Wireworm damage range in between 0 to 17.75 percent. Lowest wireworm damage was recorded on genotype STVT-I-2020-01 (0.00%), STVT-I-2020- 07 (0.00%), HOVTSB-I-2020-07 (0.00%) and HOVTVG-I-2020-07 (0.00%) respectively these were highly resistant genotype. Highest number of wireworm damage pods were recorded on TSB-I-2020-09 (17.75%) followed by ISK-I-2020-29 (16.5%), ISK-I-2020-06 (16.25%).

The susceptible check was LGN-01 which has (7%) wireworm damage. Further the genotypes were categorized into three different categories based on number of damage pods. Out of 92 genotype screened for wireworm incidence 16 genotypes was found 'Less susceptible' against wireworm and 60 genotype lines were categorized as 'Moderately Susceptible' genotypes. 16 genotypes were found as 'Highly susceptible' to infestation of wireworm.

Table 3: Grouping of different groundnut genotypes based on their relative susceptiblity to wireworm

Pest	Less Susceptible (<Mean-SD)	Moderately susceptible (Mean-SD to Mean+SD)	Highly Susceptible (>Mean+SD)
Wireworm Mean = 7.56 S. D. = 4.32	STVT-I-2020-01, HOVTVG-I-2020- 02, STVT-I-2020-07, HOVTSB-I-2020-07, IVK-I-2020-03, ISK-I- 2020-08, IVK-I-2020-13, HOVTSB-I-2020-02, HOVTVG-I-2020- 03, HOVTVG-I-2020-09, HOVTVG- I-2020-07, IVK-I- 2020-16, IVK-I-2020-14, IVK-I-2020-17, ISK-I-2020-20, ISK-I-2020-04. (Value<3.23)	ISK-I-2020-18, ISK-I-2020-21, ISK-I-2020-05, ISK-I-2020-19, ISK-I-2020-11, ISK-I-2020-24, ISK-I-2020-22, ISK-I-2020-01, ISK-I-2020-27, STVT-I-2020-10, STVT-I-2020-01, STVT-I-2020-06, LSVT-I-2020-04, IVK-I-2020-06, IVK-I-2020-23, HOVTSB-I-2020- 05, STVT-I-2020-12, IVK-I-2020-15, ISK-I-2020-02, LSVT-I-2020-03, IVK-I-2020-12, IVK-I-2020-25, STVT-I-2020-08, STVT-I-2020-05, IVK-I-2020-05, STVT-I-2020-13, HOVTSB-I-2020- 03, ISK-I- 2020-13, IVK-I-2020-21, IVK-I-2020-09, IVK-I-2020-21, IVK-I-2020-13, IVK-I-2020-01, LSVT-I-2020-08, IVK-I-2020-19, HOVTSB-I-2020-08. (Value between 3.23-11.87)	ISK-I-2020-10, ISK-I-2020-06, ISK-I-2020-29, ISK-I-2020-30, ISK-I-2020-09, ISK-I-2020-16, TSB-I-2020-09, STVT-I-2020-17, ISK-I-2020-32, ISK-I-2020-26, STVT-I-2020-14, STVT-I-2020-15, IVK-I-2020-18, ISK-I-2020-12, IVK-I-2020-10, ISK-I-2020-14. (Value>11.87)

Screening of groundnut genotype against Subterranean Ants

The results in respect of screening of groundnut genotypes against Sub. Ants are presented in Table 4.

Data presented in the table revealed that the Sub. Ants incidence was observed. Sub. Ants damage range in between 0 to 16.75 percent. Lowest damage of Sub. Ants were recorded on genotype STVT-I-2020-01 (0.00%), STVT-I-2020-07 (0.00%), HOVTSB-I-2020-07 (0.00%) and HOVTVG-I-2020-07 (0.00%) respectively and these were highly resistant genotype. Highest number of sub. ants damage pods were recorded on IVK-I-2020-05 (16.75%) followed by IVK- I-2020-05 (16.75%), ISK-I-2020-12 (16.5%).

The susceptible check was LGN-01 which has (6.75%) sub. ants damage. Further the genotype were categorized into three different categories based on number of damage pods. Out of 92 genotype screened for subterranean ants incidence 13 entry was found 'Less susceptible' against subterranean ants and 62 genotype lines were categorized as 'Moderately Susceptible' genotypes. 17 genotype were found as 'Highly susceptible' to infestation of subterranean ants.

Table 4: Grouping of different groundnut genotypes based on their relative susceptiblity to subterranean ants

Pest	Less Susceptible (<Mean-SD)	Moderately susceptible (Mean-SD to Mean+SD)	Highly Susceptible (>Mean+SD)
Subterranean ant Mean =8.49 S. D. = 4.45	STVT-I-2020-01, STVT-I-2020-07, HOVTSB-I-2020- 07, ISK-I-2020-20, IVK-I-2020-03, STVT-I-2020-05, LSVT-I-2020-08, HOVTSTB-I-2020-08, HOVTVG-I-2020-09, HOVTSB- I-2020-01, HOVTVG-I-2020- 07, IVK-I-2020-16, IVK-I-2020-14. (Value<4.04)	ISK-I-2020-18, ISK-I-2020-21, ISK-I-2020-05, ISK-I-2020-19, ISK-I-2020-11, ISK-I-2020-24, ISK-I-2020-16, ISK-I-2020-01, ISK-I-2020-27, STVT-I-2020-06, HOVTVG-I-2020-02, LSVT-I-2020-04, IVK-I 2020-06, IVK-I-2020-23, HOVTSB-I-2020-05, STVT-I-2020-14, STVT-I-2020-12, IVK-I-2020-15, LSVT-I-2020-03, IVK-I-2020-25, STVT-I-2020-08, STVT-I-2020-15, LSVT-I-2020-01, STVT-I-2020-13, HOVTSB-I-2020-03, ISK-I- 2020-08, ISK-I- 2020-13, IVK-I-2020-21, IVK-I-2020-09, IVK-I-2020-21, IVK-I-2020-18, IVK-I-2020-13, IVK-I-2020-01, HOVTSB-I-2020-02, IVK-I-2020-19, HOVTVG-I-2020-03, STVT-I-2020-02, IVK-I-2020-11, LSVT-I-2020-07, IVK-I-2020-20, ISK-I-2020-14, HOVTVG-I-2020-08, LSVT-I-2020-02, HOVTVG-I-2020-04, HOVTSB-I-2020-04, HOVTSB-I-2020-06, HOVTVG-I-2020-01, IVK-I-2020-22, ISK-I-2020-20, STVG-I-2020-09, ISK-I-2020-23, STVT-I-2020-16, LSVT-I-2020-06, ISK-I-2020-07, STVT-I-2020-11, STVT-I-2020-03, STVT-I-2020-04, IVK-I-2020-04, ISK-I-2020-04, ISK-I-2020-13 LGN-01. (Value between 4.04-12.92)	ISK-I-2020-10, ISK-I-2020-06, ISK-I-2020-22, ISK-I-2020-29, ISK-I-2020-30, ISK-I-2020-09, TSB-I-2020-09, STVT-I-2020-10, STVT-I-2020-17, ISK-I-2020-32, ISK-I-2020-26, ISK-I-2020-02, IVK-I-2020-12, IVK-I-2020-05, ISK-I-2020-12, IVK-I-2020-10, ISK-I-2020-15. (Value>12.92)

Conclusion

In conclusion it is to state that in the present investigation, Lowest earwig damage was recorded on genotype STVT-I-2020-01, STVT-I-2020-07, HOVTSTB-I-2020-07 and HOVTVG-I-2020-07 respectively and these highly resistant genotype. Lowest wireworm damage was recorded on genotype STVT-I- 2020-01, STVT-I-2020-07, HOVTSTB-I-2020-07 and HOVTVG-I-2020-07 respectively these were highly resistant genotype. Lowest damage of Subterranean ants were recorded on genotype STVT-I-2020-01, STVT-I-2020-07, HOVTSTB-I- 2020-07 and HOVTVG-I-2020-07 respectively and these were highly resistant genotype.

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