



RESPONSE OF *VIGNA SUBTERRANEAN* (L.) VERDC. FARMER RETAINED VARIETIES TO *MELOIDOGYNE INCOGNITA* UNDER GREENHOUSE CONDITIONS

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Introduction



groundnut and cowpeas

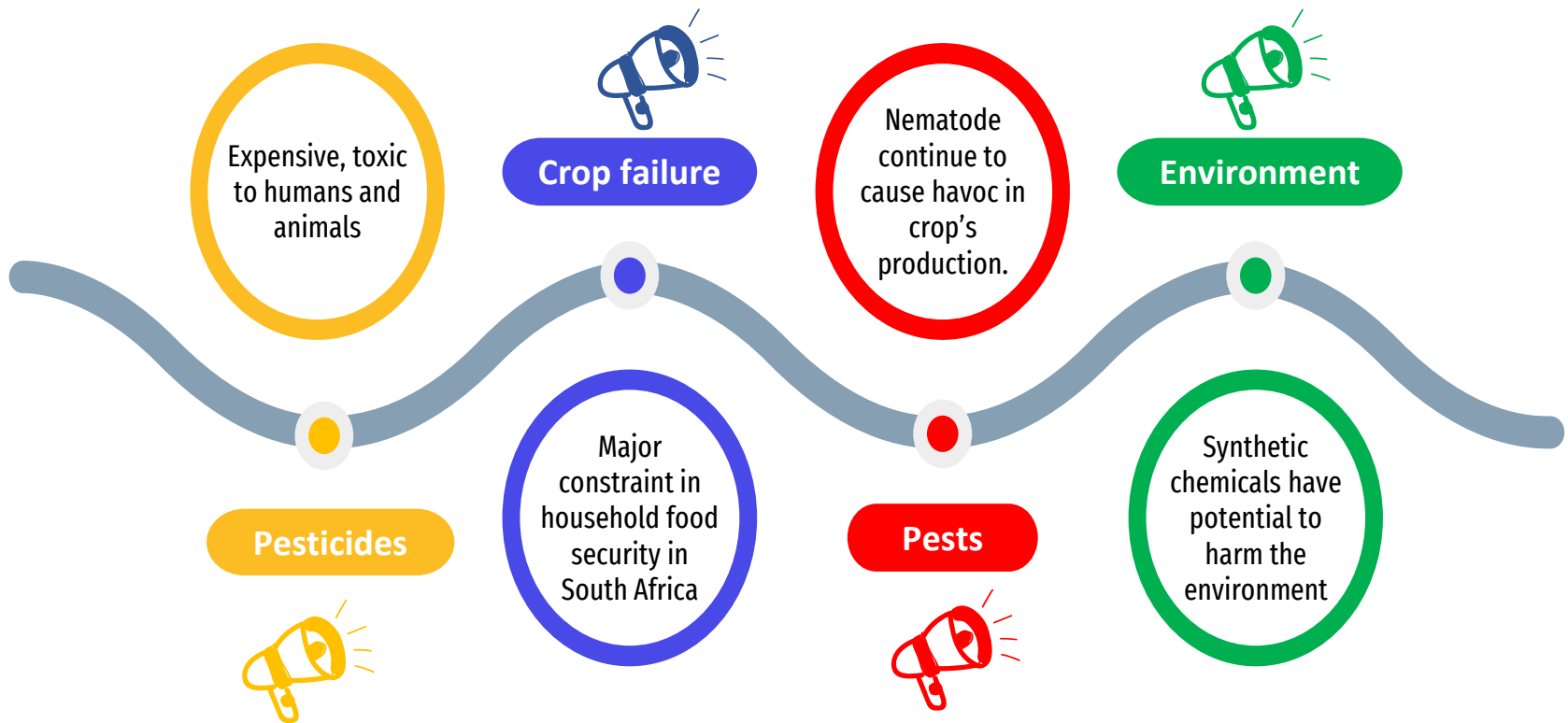


diseases.

due to pest and

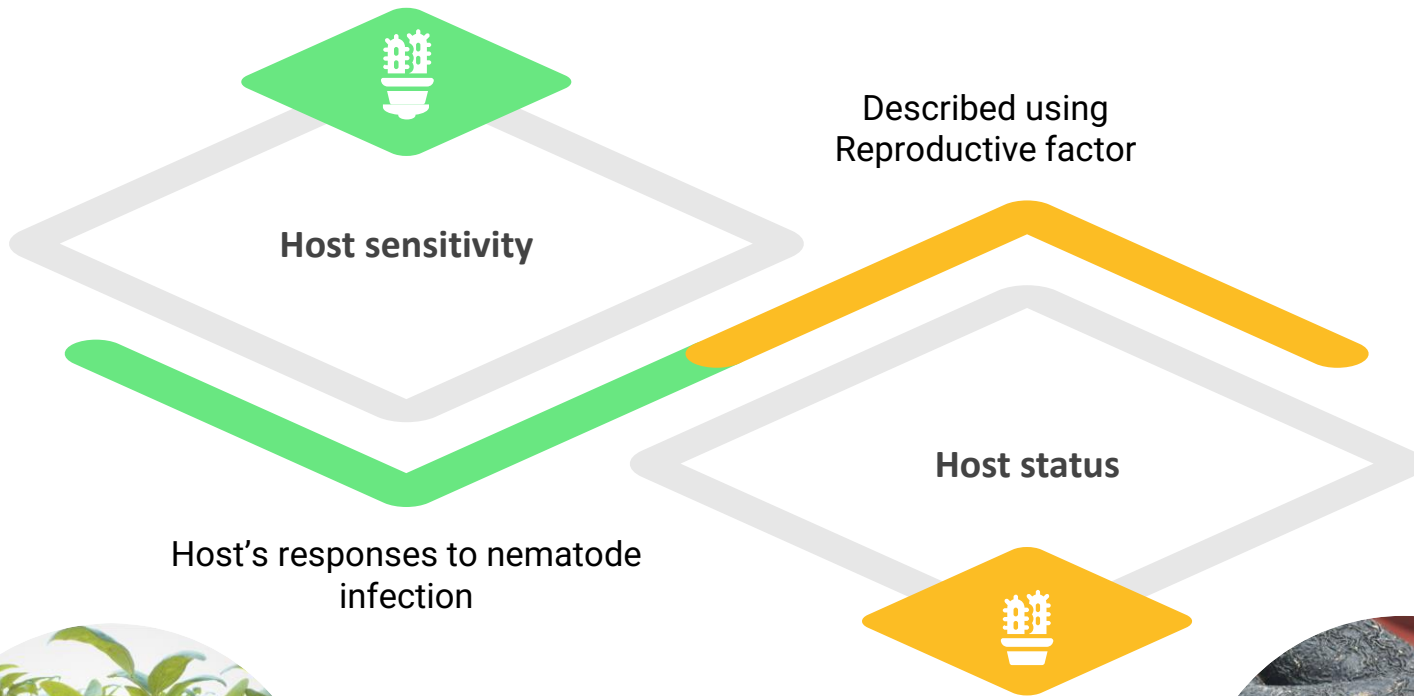


Problem Statement





Objectives





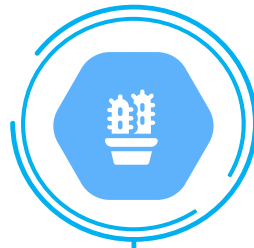
Materials and methods



Location

Greenhouse gas

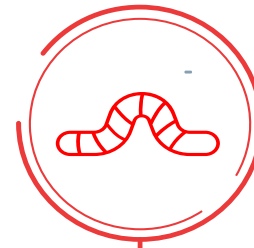
From June to September 2021 under greenhouse conditions ranging from 20-30°C.



Soil

Steam pasteurized

25cm diameter plastic pots. A mixture of sandy and loam soil (3:1 v/v) was used. Randomize complete block design.



Nematodes

Inoculation

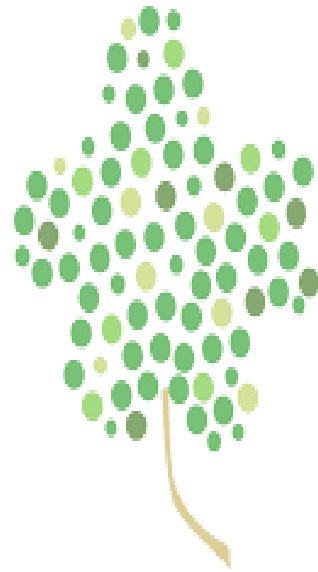
5000 eggs and J2 of *M. incognita* will directly be applied using 25 cm plastic syringe.



Data Analysis

Statistica10x

Subjected to ANOVA. Tukey's HSD Test (≤ 0.05) was used to separate means of significant variables. Data was then transformed using $\log_{10}(x+1)$.



SCIENCE FOR SOCIETY

1

Close the gap of
scientific
knowledge

2

Synthetic
nematicides are
now a priority
over chemical
control

3

Sustainable
and efficient
holistic
approach to
control *M.
incognita*



Results and discussions

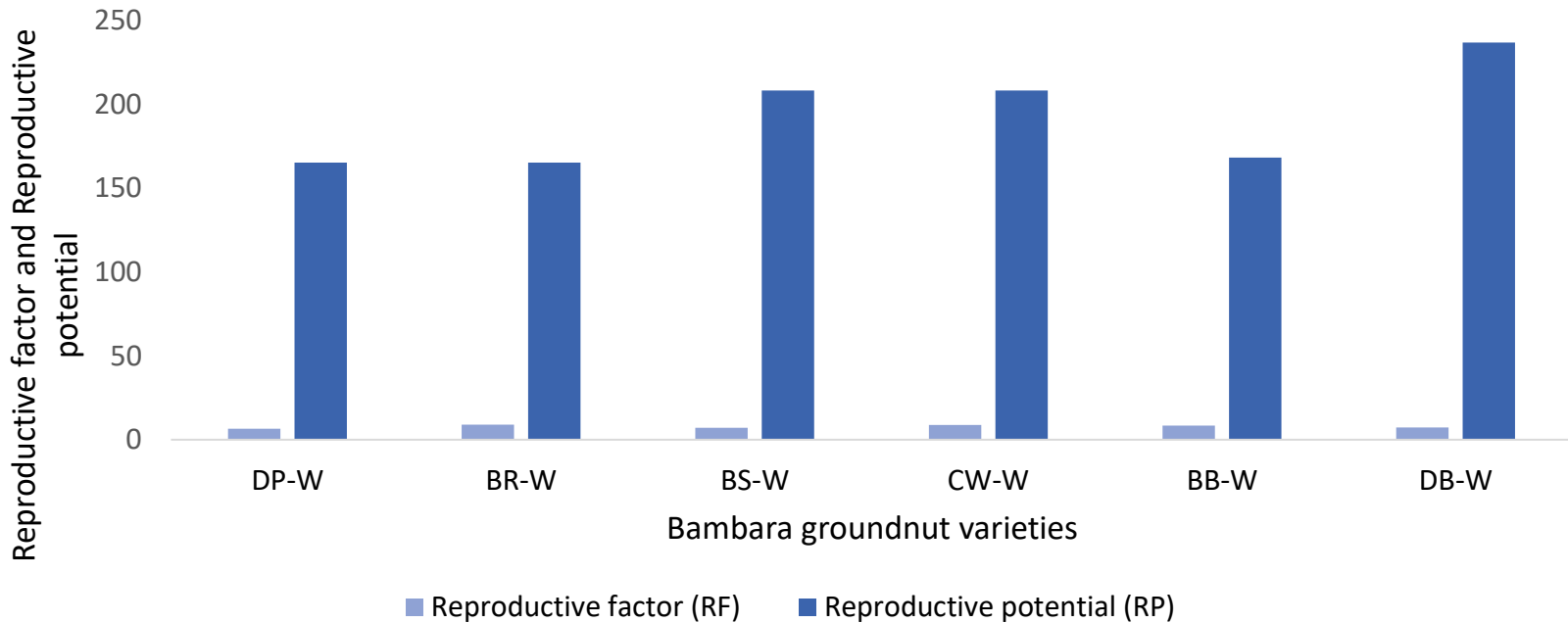
Varieties	Total nematode in roots	Nematode in soil Juveniles	Nematode total in plant	Reproductive factor	Reproductive potential
DP-W	2,96 ^a (1940,0)	4,39 ^a (30500)	4,43 ^a (32440)	0,82 ^a (6,4560)	2,26 ^a (165,07)
BR-W	2,39 ^a (880,0)	4,14 ^a (43500)	4,43 ^a (44380)	0,88 ^a (8,8760)	1,70 ^a (165,07)
BS-W	2,83 ^a (1580,0)	4,47 ^a (33500)	4,50 ^a (35080)	0,87 ^a (7,0160)	2,03 ^a (208,11)
CW-W	2,65 ^a (1080,0)	4,16 ^a (42500)	4,50 ^a (43580)	0,90 ^a (8,7160)	2,00 ^a (208,11)
BB-W	2,40 ^a (1020,0)	4,13 ^a (41000)	4,43 ^a (42020)	0,87 ^a (8,4040)	1,79 ^a (168,14)
DR-W	2,82 ^a (1440,0)	4,40 ^a (35500)	4,44 ^a (36940)	0,83 ^a (7,3160)	2,05 ^a (236,68)
P value	0,8167 ^{n.s}	0,9583 ^{n.s}	0,9977 ^{n.s}	0,9814 ^{n.s}	0,7657 ^{n.s}
LSD _{0,5}	0,5081	0,4793	0,1977	0,1294	0,3957
F value	1	0,63	0,44	0,21	0,06

^x Columns means followed by the same letter are not significantly different at ($p \leq 0.05$), according to Fisher's least significant difference. ^yValues in brackets are untransformed means. ^{ns} -not significant.



Results and discussions

Effects of *Meloidogyne incognita* on reproductive factor and reproductive potential of Bambara groundnut varieties





Conclusions and recommendations

Conclusion

All 6 Bambara groundnut varieties were susceptible to nematodes

Recommendation

All 6 varieties can be adopted by farmers

Conclusion

Nematode established a feeding site and reproduced in numbers.

Recommendation

The crop should be cultivated in summer to avoid non pod formation



References

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Thank you for your attention!

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