	Entomology				
7	To assess the crop loss due to insect pests and	16 th PPSC, 2020			
	diseases in sorghum [Only scientific community]				
	The avoidable yield loss due to insects <i>viz.</i> , shoot fly and stem borer and due				
	to disease <i>viz.</i> , grain mold and sugary disease was anticipated up to 50.00 per cent in sorghum.				
16	Evaluation of different oils against sorghum shoot	16 th PPSC, 2020			
	fly				
	Sorghum growing farmers of south Gujarat are advised to	± •			
	% or Karanj oil 0.5 % (50ml + 3 g detergent /10 lit was				
15	after emergence of crop for effective management of sor Chemical control of sorghum shoot fly and stem				
U	borer	2017-18			
	Sorghum growers of South and North Gujarat are advise				
	thiamethoxam 30 FS @ 3g/kg seeds before sowing				
	thiamethoxam 30 FS @ 3g/kg seeds before sowing al				
	Neem base pesticide 1500 ppm @ 35ml/10 lit .of was emergence of crop to manage the sorghum shoot fly and				
14	Chemical control of sorghum mite Oligonychus	8 th PPSC of NAU,			
•	indicus	2011-12			
	Sorghum crop grower of South Gujarat are recommende				
	0.06% (Net BCR 1:5.5) or dicofol 0.04% (Net BCR 1:9	.1) (two spray) at the			
_	initiation of sorghum mite.	and DDGG SENTART			
.3	Low cost ecofriendly IPM module for the control of sorghum pests	2 PPSC of NAU, 2005-06			
	For the control of sorghum shoot fly and stem borer any				
	IPM modules is recommended for the farmers of South	_			
	1. Normal sowing with normal seed rate @ 8 kg/l	ŭ			
	8 hours in solution of endosulfan @ 0.07% + 0	•			
	application of carbofuran 3G @ 7.5 kg/ha at 30 DAE (CBR 1:25.65)				
	2. Late sowing (15 days late) with high seed rate @ 10 kg/ha + seed				
	soaking for 8 hours in solution of endosulfan @ 0.07% + CaCl ₂ @				
	2% + whorl application of carbofuran 3G @ 7.5 kg/ha at 30 DAE				
	(CBR 1:22.52)				

Chemical control of shoot fly and stem borer by 12 seed treatment

2nd PPSC of NAU, 2005-06

Under South Gujarat conditions, following insecticides are recommended as a seed treatment for the control of shoot fly and stem borer in sorghum

- 1. Seed soaking in solution of endosulfan @ 0.07% + CaCl₂ @ 2% for 8 hours (CBR 1:50.87)
- 2. Thiamethoxam 70 WS @ 2 g ai/kg seed (CBR 1:50.58)
- 3. Thiamethoxam 35 FS @ 2 g ai/kg seed (CBR 1:41.56)

Development of IPM modules for the control of 11 sorghum pests

35th PPSC, 1999-2000

The sorghum growing farmers of South Gujarat are advised to follow any one of the following IPM modules for the effective and ecofriendly control of sorghum pests.

Module-I

- 1. Use of high seed rate i.e. 10 kg/ha
- 2. Shoot fly: Thinning at 11 DAE, removal of shoot fly infested plants as well as thinning of unhealthy plants. Spraying of Neem formulation NSKE 3% or any other neem formulation at 12 DAE.
- 3. Stem borer: Release of *Trichogramma chilonis* @ 2 lakh/ha at 21 DAE (Immediately after 2nd thinning at 20 DAE as maintaining 2 lakh plants/ha on threshold basis)
- 4. Stem borer: Spraying of neem formulation NSKE @ 3% or any commercial product of neem on threshold basis at 30 DAE
- 5. Stem borer: Release of Trichogramma chilonis @ 2 lakh/ha on threshold basis at 44-48 DAE.
- 6. Mite: Spraying of Dicofol 18.5 EC @ 0.04% (Need based application)
- 7. Midge: Spraying of Endosulfan 35 EC @ 0.07% at 50% flowering (Need based application)
- 8. Head bug: Spraying of neem formulation NSKE @ 3% or any other commercial product of neem at soft dough stage.
- 9. Head worm: Spraying of HNPV @ 250 LE/ha dough stage on threshold basis
- 10. Mechanical collection of earhead pests i.e. midge, bugs and worms

Module-II

1. Use of high seed rate @ 12 kg/ha

2. Shoot fly: Spraying of Imidacloprid (confidor) 200 SL @ 0.005%

at 12 DAE 3. Stem borer: Spraying of neem formulation NSKE @ 3% at 21st DAE and 44-48 DAE 4. Mite: Spraying of dicofol 18.5 EC @ 0.04% (Need based application) 5. Midge: Spray of Endosulfan 35 EC @ 0.075% at 50% flowering (Need based application) 6. Head bug: Hand collection of bugs giving full pressure using polythene bag containing a cotton swab soaked in 2 ml of Ethyl acetate or Benzene 7. Head worms: Release of *Trichogramma chilonis* @ 2 lakh/ha on threshold basis. 35th PPSC, 1999-10 **Chemical control of stem borer** 2000 It is recommended that the sorghum growing farmers of South Gujarat are advised to apply any one of the following insecticides for the control of stem borer 1. Mix spraying of Azadex 100@ 5% + Endosulfan 35EC @ 0.075% at 20 DAE 2. Mix spraying Azadex 100 @ 5% + Imidacloprid 200 SL @ 0.005% at 20 DAE 3. Imidacloprid 200 SL @ 0.005% at 20 DAE 34th PPSC, 1998-99 9 Chemical control of sorghum mite Application of any one of the following pesticides at profuse build up of spider mite, Oligonychus indicus in sorghum is recommended for its effective and economical control under South Gujarat conditions 1. Dicofol @ 0.04% (ICBR 1:16.05) 2. Endosulfan @ 0.07% (ICBR 1:14.16) 3. Wettable sulpher @ 0.25% (ICBR 1:17.45) 32nd PPSC, 1996-8 Chemical control of earhead with worm biopesticides 97 The sorghum growing farmers are advised to apply two sprays of HNPV @ 250 LE/ha first at flowering stage and second at dough stage (ICBR 1:25.82) for the control of earhead worms. 32nd PPSC, 1996-Chemical control of sorghum earhead bug 7

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The sorghum growing farmers are advised to apply two sprays of

<u> </u>	Profenophos @ 0.1 per cent first before milking stage and second at soft dough stage (ICBR 1:12.35) for the control of earhead bugs.					
		of sorghum midge			5C, 1996-	
	The sorghum growing farmers are advised to apply two sprays of profenophos @ 0.1 per cent first at penical emergence and second at 10 days after first spray (ICBR 1:10.44) for the control of sorghum midge.					
5	Chemical control of sorghum stem borer			32 nd PPS		
		wing farmers are advised to 07% at 20 DAE and 30 DAE at tem borer.				
4		nanagement of sorghum pes		28 th PPSC		
		ent of Carborufan 3G @ 2g/		_		
	_	egg parasite, <i>Trichogramme</i>				
		AG or combined treatment of			_	
	+ high seed rate @ 10 kg/ha is recommended for the control of sorghum					
.	stem borer and sho	oot fly.		28 th PPSC	1992 <u>-</u> 93	
3	stem borer and sho	oot fly. of sorghum shoot fly		28 th PPSC		
3	Chemical control From the results of	oot fly. of sorghum shoot fly f three years data as well as	pooled ar	nalysis carb	oofuran 25	
3	Chemical control From the results of ST @ 4 or 5% (16)	oot fly. of sorghum shoot fly f three years data as well as or 20 g/100 of seed) as a see	pooled ar	nalysis carb	oofuran 25	
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