

Entomology

17	To assess the crop loss due to insect pests and diseases in sorghum [Only scientific community]	16th PPSC, 2020
	The avoidable yield loss due to insects viz., shoot fly and stem borer and due to disease viz., grain mold and sugary disease was anticipated up to 50.00 per cent in sorghum.	
16	Evaluation of different oils against sorghum shoot fly	16th PPSC, 2020
	Sorghum growing farmers of south Gujarat are advised to spray Neem oil 0.5 % or Karanj oil 0.5 % (50ml + 3 g detergent /10 lit water) at 7 and 17 days after emergence of crop for effective management of sorghum shoot fly.	
15	Chemical control of sorghum shoot fly and stem borer	14th PPSC of NAU, 2017-18
	Sorghum growers of South and North Gujarat are advised to treat seeds with thiamethoxam 30 FS @ 3g/kg seeds before sowing or treat seeds with thiamethoxam 30 FS @ 3g/kg seeds before sowing alongwith spraying of Neem base pesticide 1500 ppm @ 35ml/10 lit .of water after 30 days of emergence of crop to manage the sorghum shoot fly and stem borer.	
14	Chemical control of sorghum mite <i>Oligonychus indicus</i>	8th PPSC of NAU, 2011-12
	Sorghum crop grower of South Gujarat are recommended to spray propergite 0.06% (Net BCR 1:5.5) or dicofol 0.04% (Net BCR 1:9.1) (two spray) at the initiation of sorghum mite.	
13	Low cost ecofriendly IPM module for the control of sorghum pests	2nd PPSC of NAU, 2005-06
	<p>For the control of sorghum shoot fly and stem borer any one of the following IPM modules is recommended for the farmers of South Gujarat.</p> <ol style="list-style-type: none"> 1. Normal sowing with normal seed rate @ 8 kg/ha + seed soaking for 8 hours in solution of endosulfan @ 0.07% + CaCl₂ @ 2% + whorl 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% + CaCl₂ @ 2% + whorl application of carbofuran 3G @ 7.5 kg/ha at 30 DAE (CBR 1:22.52) 	

12	Chemical control of shoot fly and stem borer by seed treatment	2nd PPSC of NAU, 2005-06
	<p>Under South Gujarat conditions, following insecticides are recommended as a seed treatment for the control of shoot fly and stem borer in sorghum</p> <ol style="list-style-type: none"> 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) 	
11	Development of IPM modules for the control of sorghum pests	35th PPSC, 1999-2000
	<p>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.</p> <p>Module-I</p> <ol style="list-style-type: none"> 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 <i>Trichogramma chilonis</i> @ 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 <i>Trichogramma chilonis</i> @ 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 <p>Module-II</p> <ol style="list-style-type: none"> 1. Use of high seed rate @ 12 kg/ha 2. Shoot fly : Spraying of Imidacloprid (confidor) 200 SL @ 0.005% 	

	<p>at 12 DAE</p> <p>3. Stem borer : Spraying of neem formulation NSKE @ 3% at 21st DAE and 44-48 DAE</p> <p>4. Mite : Spraying of dicofol 18.5 EC @ 0.04% (Need based application)</p> <p>5. Midge : Spray of Endosulfan 35 EC @ 0.075% at 50% flowering (Need based application)</p> <p>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</p> <p>7. Head worms : Release of <i>Trichogramma chilonis</i> @ 2 lakh/ha on threshold basis.</p>	
10	Chemical control of stem borer	35th PPSC, 1999-2000
	<p>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</p> <ol style="list-style-type: none"> 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 	
9	Chemical control of sorghum mite	34th PPSC, 1998-99
	<p>Application of any one of the following pesticides at profuse build up of spider mite, <i>Oligonychus indicus</i> in sorghum is recommended for its effective and economical control under South Gujarat conditions</p> <ol style="list-style-type: none"> 1. Dicofol @ 0.04% (ICBR 1:16.05) 2. Endosulfan @ 0.07% (ICBR 1:14.16) 3. Wettable sulphur @ 0.25% (ICBR 1:17.45) 	
8	Chemical control of earhead worm with biopesticides	32nd PPSC, 1996-97
	<p>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.</p>	
7	Chemical control of sorghum earhead bug	32nd PPSC, 1996-97
	<p>The sorghum growing farmers are advised to apply two sprays of</p>	

	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.																
6	Chemical control of sorghum midge	32nd PPSC, 1996-97															
	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	32nd PPSC, 1996-97															
	The sorghum growing farmers are advised to spray Cypermethrin 0.005% and endosulfan 0.07% at 20 DAE and 30 DAE, respectively (ICBR 1:31.90) for the control of stem borer.																
4	Integrated pest management of sorghum pests	28th PPSC, 1992-93															
	Combined treatment of Carborufan 3G @ 2g/m row + high seed rate @ 10 kg/ha + release of egg parasite, <i>Trichogramma chilonis</i> @ 5 lacks adults/ha on 7, 14 and 21 DAG or combined treatment of Carbofuran 3G @ 2g/m row + high seed rate @ 10 kg/ha is recommended for the control of sorghum stem borer and shoot fly.																
3	Chemical control of sorghum shoot fly	28th PPSC, 1992-93															
	From the results of three years data as well as pooled analysis carbofuran 25 ST @ 4 or 5% (16 or 20 g/100 of seed) as a seed treatment is recommended for the control of sorghum shoot fly in South Gujarat.																
2	Chemical control of sorghum stem borer	28th PPSC, 1992-93															
	From the results of three years it can be concluded that leaf whorl application of Cartap (Paden) 4G @ 7.5 kg/ha or insecticidal spray of monocrotophos 36 WSC @ 0.04% effectively reduced the stem borer dead hearts and stem tunneling percentage																
1	Control of sorghum stem borer by seedling root-dip in insecticides	24th PPSC 1988-89															
	The farmers of South Gujarat are advised to transplant the 24 days old healthy sorghum seedlings after 6 hours root dip in any one of the following insecticides.																
	<table border="1"> <thead> <tr> <th>Sr. No.</th><th>Name of insecticide</th><th>Concentration</th></tr> </thead> <tbody> <tr> <td>1.</td><td>Carbofuran 35 ST</td><td>0.035%</td></tr> <tr> <td>2.</td><td>Phosphamidon 100 EC</td><td>0.03%</td></tr> <tr> <td>3.</td><td>Methyl-o-demeton 25 EC</td><td>0.05%</td></tr> <tr> <td>4.</td><td>Chlorpyriphos 20 EC</td><td>0.05%</td></tr> </tbody> </table>	Sr. No.	Name of insecticide	Concentration	1.	Carbofuran 35 ST	0.035%	2.	Phosphamidon 100 EC	0.03%	3.	Methyl-o-demeton 25 EC	0.05%	4.	Chlorpyriphos 20 EC	0.05%	
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