



Ministry of Livestock, Agriculture and Irrigation
Department of Agriculture



Review on Fall Armyworm (FAW) Incidences and Taking Controls in Shan State

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Introduction

- Fall Armyworm is one of the invasive pest from other country
- FAW is spreading with faster rate
- Difficult to know FAW incidence without scouting the fields
- Difficult to control, because of their hiding & feeding behavior in corn whorl

Establishment of supervisory body

- ❖ Established the supervisory body of State/ Districts/Township/ Village level for Fall Armyworm control

Sr. no	Position	Responsibility	Remark
1.	State Minister , Ministryof Livestock, Agriculture and Irrigation	Chairman	
2.	Deputy Director General (Department of General Administration)	Member	
3.	Director (Department of Land Management and Statistics)		
4.	Director (Irrigation and Water Utilization Management Department)		
5.	Director (Agricultural Mechanization Department)		
6.	Director (Livestock Breeding and Veterinary Department)		
7.	Director (Department Of Planning)		
8.	Director (Department of Rural Development)		
9.	Director (Department of Agriculture)	Secretary	
10.	Assistant Director(Department of Agriculture , Plant Protection Division)	Associate Secretary	

Preparation for before Planting Season

- ❖ Awareness to farmers at the exhibition room of Shan State Day and Union Day
- ❖ TOT-training for DOA Staff , collaborated with Center for Agriculture and Biosciences International(CABI)
- ❖ Broadcasting Early-warning for Fall Armyworm from Cherry FM



Monitoring and Scouting

- Monitoring by using Pheromone Trap
- Monitoring by using Light Trap/ Color Trap
- Field surveillance and Scouting with DOA staff





Demonstration Plot and Experimental plot

- Experimental plot with Neem cake , Neem oil, Neem pesticide for Fall Armyworm Control
- Biological control demonstration plot using *trichogramma spp*
- Intercropping Demonstration plot (Maize with Soybean, Sunflower, Pigeon pea, Garlic)

Data collection of Experimental plot with Neem cake

No	Particular	Neem Cake	Control	Remark
1	Township	Kyaukme	Kyaukme	
2	Farmer's Name	U San Pa	U San Pa	
3	Village Tract	Nar Khaw	Nar Khaw	
4	Village	Bu Khar	Bu Khar	
5	Acre	1 acre	1 acre	
6	Spacing	2.5'x 9"	2.5'x 9"	
7	Plant Population	22000	22000	
8	Rate of Neem Cake(25kg)	10 bag/acre	-	
9	Date of Sowing	10.6.2019	10.6.2019	
10	Date of Thinning	26.6.2019	26.6.2019	
11	First Date of Weeding	26.6.2019	26.6.2019	
12	Date of Incidence	5.7.2019	27.6.2019	
13	Second Date of Weeding	20.7.2019	20.7.2019	
14	Incidence Percentage	23%	43%	
15	First Date of Spraying	6.7.2019	28.6.2019	
16	Kinds of Pesticide	Neem Pesticide	Emermectin benzoate	

Data collection of Experimental plot with Neem cake (Cont;)

No	Particular	Neem Cake		Control
17	Second Date of Spraying	20.7.2019	21.7.2019	
18	Kinds of Pesticide	Emermectin benzoate	Emermectin benzoate + Lamdacyhalothrin	
19	Date of Flowering	16.8.2019	16.8.2019	
20	Date of Harvesting	21.10.2019	21.10.2019	
21	Harvesting of Sample Yield	21.10.2019	21.10.2019	
22	Seeds per Cob	420	392	
23	1000 Grains Weight	305 gm	305 gm	
	Yield per Acre	102.86 baskets(dry)	95.33 baskets(dry)	

- ❖ In Neem cake experimental plot FAW incidence was for about two week later than control. But the yield was not too different with control.



Experimental plot of Neem Cake in Kyaukme District



Experimental plot of Neem Cake in Taunggyi



Awareness Training

Sr. no	Sub state	Times	Number of Trainee				Remark
			Farmer	Staff	Other	Total	
1.	PPD , Shan State	30	3470	563	144	4177	
2.	Southern Shan	230	17080	1809	154	19043	
3.	Northern Shan	196	7819	2188	146	10153	
4.	Eastern Shan	109	3919	713	-	4632	
	Total	538	28818	4710	300	33828	

Awareness Training



Supporting from Shan State Government

Shan State Government provides 70.59 million Kyats worth of Inputs/materials to prevent farmer losing by Fall Amryworm.

Sr. no	Inputs/Materials	Quantity	Unit	Price/Unit	Amount	Remark
1.	Neem cake	240	bags	30000	7200000	
2.	Neem oil	160	bottles	5000	800000	
3.	Neem Pesticide	240	bottles	5000	1200000	
4.	Spryer	546		40000	2184000	
5.	Personal Protection Equipment	440		10000	4400000	
၆။	Chemical Pesticide	3097	bottles		25968000	3097 acre
၇။	Trichogramma spp	195	acre	6000	1170000	
၈။	Compound Fertilizer	14	bags		560000	
၉။	Urea Fertilizer	24	bags		552000	
၁၀။	Seed (Maize)	135	acre		5400000	
	Other				1500000	
	Total				70590000	







Established of Mobile Spraying Groups

Sr. no	Districts	Number of Mobile Spraying Groups	Number of Applicator	Number of Sprayer	Remark
1.	Taunggyi	47	309	205	
2.	LoiLem	9	140	75	
3.	LinKhae	-	-	-	
4.	Lashio	80	800	800	
5.	Muse	13	205	250	
6.	Kyaukse	223	45	45	
7.	Moe Meik	22	240	2100	
8.	Laukkai	11	137	137	
9.	Hopan	10	71	71	
10.	Keng Tong	36	311	301	
11.	Tachileik	22	110	110	
12.	MongSat	48	2650	2650	
	Total	521	5018	6790	

Community Activism

- ❖ Making light trap by Community
- ❖ Making the trap using molasses by community



Community Activism



Spraying with Drone



Harvesting for Standard Yield

No	Particular	Sample Plot Harvesting			Remark
1	Township	Thein Ni	Taunggyi	Pin Laung	
2	Village Tract	Nang Sa Lat	Than Tae	Lin Khan	
3	Farmer's Name	U Sai Pan Ti	U Ohn Kyaing	U Lan	
4	Variety	621	808	808	
5	System of Planting	2.5'x9"	2.5'x9"	2'x1'	
6	Date of Sowing	12.7.2019	7.6.2019	10.7.2019	
7	Date of Incidence	27.7.2019	2.7.2019	30.7.2019	
8	Time of Spraying	3	2	3	
9	Kinds of Pesticide	Emamatinbanzoate + Lamdacyhalothrin , Cypermethrin + Chlopyrifos , Indoxarcab	Emamatinbanzoate, Indoxarcab	Emamatinbanzoate + Lamdacyhalothrin , Cypermethrin + Chlopyrifos , Indoxarcab	
10	50% Flowering	17.9.2019	3.8.2019	6.9.2019	
11	Plant's Height (cm)	192	180	188	
12	Date of Harvesting	31.10.2019	26.9.2019	2.11.2019	
13	Plants per Acre	17520	17530	20080	
14	Cobs per plant	1.5	1.5	1.5	
15	Seeds per Cob	480	475	450	
16	1000 Grains Weight	340 gm	340 gm	340 gm	
17	Yield per Acre	100.76 basket	97.82 basket	108.26 basket	



Conclusion and Suggestion

- Shan State has adaptable climate and plenty of food for Fall Armyworm, so it was incidences everywhere in Shan State.
- There is no damage cause by Fall Armyworm , because of the providing and leadership of State Government , employee efforts and the involvement of farmers.
- As a activities , the Department of Agriculture has gained the trust of farmers, so that further activities will be more successful.

**Thank You
For Your Kind Attention !**

