Effect of some Botanical Oils on the Control of Cotton Jassid, *Jacobiasca lybica* (De berg) (Hemiptera: Cicadellidae) on Eggplant,Sudan

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Introduction: Vegetable production in the Sudan is rapidly increasing in order to meet the needs of the growing population. Eggplant (*Solanum melongena* L.) is a popular vegetable round the world. It is a native of the tropical old world, probably from the East Indies. Eggplant suffers from different types of insect pests, diseases, nematodes and weeds. The major insect pests of eggplant reported include Jassid (*Jacobiasca lybica* De Berg), Aphid (*Aphis gossypii* Lev.), and whitefly (*Bemisia tabaci* Genn). In Sudan, the use of insecticides isthe main adopted method to control jassid

Objective of the Study: To evaluate the efficacy of some botanical oils for the management of eggplant jassid..

•Materials and Methods: Two field experiments were executed during season 2015/16 at two sites. Botanical oils: including castor bean seed, cotton seed and sunflower seed oils were evaluated for their efficacy to control the cotton Jassid. In both sites the experiment was arranged in a Randomized Complete Block Design (RCBD) with four replications. The first application of oils was applied one month after transplanting of eggplant seedlings. Throughout the study, post-count observations were taken after two days from oils application. 5 plants were selected randomly from each treatment. 5 leaves were taken from top, mid and bottom parts of each selected plant.

Table 1. Effect of spraying of some plant seeds oils on the number of the cotton jassid on eggplant, Wad Medani, Season 2015/16

Treatments	Mean number of jassids / 25 leaves				Mean
	First spray	Second spray	Third spray	Fourth spray	
Cotton seed oil	6 b (2.60)	27 b (5.24)	17 b (4.21)	12 c (3.54)	16 c (4.02)
Sunflower oil	13 ab (3.71)	41 b (6.46)	37 b (6.12)	40 b (6.36)	33 b (5.78)
Castor bean oil	16 ab (4.09)	30 b (5.55)	29 b (5.43)	66 b (8.14)	35 b (5.98)
Control	25 a (5.07)	94 a (9.71)	88 a (9.38)	108 a (10.39)	79 a (8.89)
SE±	0.72	0.70	0.78	0.68	0.51
CV%	40.22	21.12	25.27	19.48	16.98

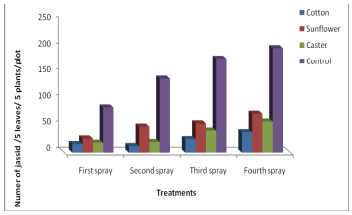

Fig. 1. Effect of spraying of some botanical oils on the number of the cotton jassid on eggplant, Wad Medani, Season 2015/16

Table 2. Effect of spraying of some botanical oils on the number of the cotton jassid on eggplant, Khartoum, Season 2015/16

Treatments	Mean number of jassids / 25 leaves				Mean
	First spray	Second spray	Third spray	Fourth spray	
Cotton seed oil	16 b (4.09)	13 c (3.61)	26 c (5.12)	39 c (6.28)	23 c (4.78)
Sunflower oil	27 b (5.24)	50 b (7.07)	56 b (7.50)	74 b (8.63)	52 b (7.11)
Castor bean oil	18 b (4.39)	20 c (4.56)	42 bc (6.52)	59 b (7.73)	35 c (5.80)
Control	86 a (9.30)	141 a (11.91)	180 a (13.44)	201 a (14.19)	152 a (12.21)
SE±	0.85	0.65	0.68	0.44	0.35
CV%	30.41	19.60	16.88	9.67	9.36

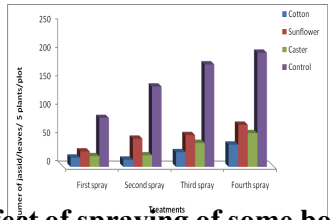

Fig. 2. Effect of spraying of some botanical oils on the number of cotton jassid on eggplant, Khartoum, Season 2015/16

Conclusion: Based on the aforementioned findings it could be concluded that the botanical oils: cotton seeds oil, castor bean oil and sunflower oil are effective against jassids on eggplant. It was noticed that the cotton seeds oil was more effective in controlling jassids compared with castor bean oil and sunflower oil.