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/ - *Therioaphis trifolii*

*Acyrtosiphon pisum*

, *Myzus persicae*, *Aphis frangullae gosypii*, *Macrosiphum euphorbiae*

*M. persicae*, *A. pisum*

*PVY*, *PLRV*

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*Myzus . persicae*

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Aphididae

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(ETL)

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*Rhopalosiphum padi, Aphis gossypii,*

*Acyrtosyphon pisum*

PVY

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PLRV PVY

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(YWT)

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(Yellow Water Traps)

:(Field inspection)

SE

Potato leaf virus (PLRV)

Alfalfa mosaic Potato virus Y (PVY) roll  
virus(AMV)

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(Post harvest control)

***Macrosiphum euphorbiae* (Thomas)  
(Hom. Aphididae)**

Solanaceae

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(NH2 CSNH2)

(Beukema et al, 1990)

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***Aphis frangollae gossypii* (Glover) (Hom. Aphididae)**

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(Calaphididae) Aphididae

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*Aphis sp*

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***Acyrtosiphon Pisum* (Harris) (Hom. Aphididae)**

**Aphididae**

***Myzus persicae* (Sulzer) (Hom.**

**Aphididae)**

Fabaceae

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1. Non Persistence

2. Persistence

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**Calaphididae.**

*Therioaphis trifolii* forma *maculata*  
(BUCKTON) (Hom. Calaphididae)

(Anal plate)

Fabaceae

(Latent)

(.) AMV

AMV

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*Th. trifolii*

(Calico)

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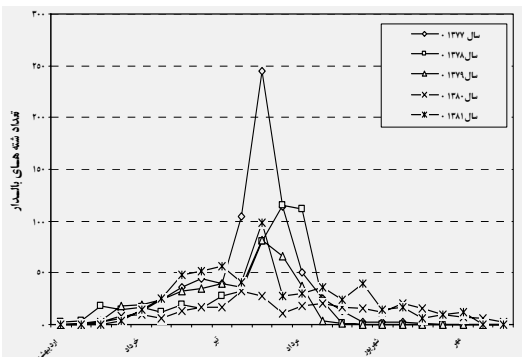
( )

Pemphigidae

*M. euphorbiae* / *A. pisum*  
*Aphis sp*

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Pemphigidae

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*Th. trifolii*

*M. persica*

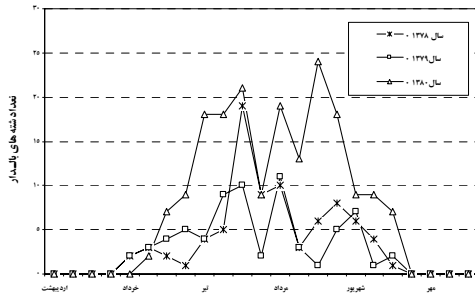
*M. euphorbiae*

*Th. trifolii*

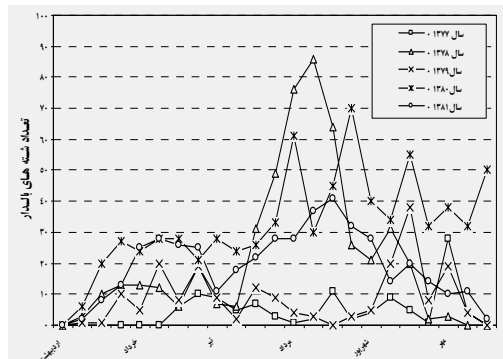
*M. euphorbiae*

*M. persicae*

*M. persicae*



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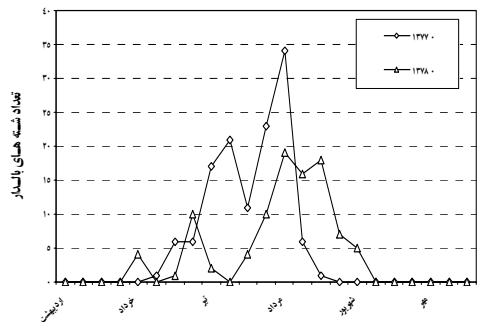
Morene , Agria (AMV)  
 ,Aula, Draga, %  
 % / % / % % Concord, Marfona  
 Ajax Picasso / /  
 PVY  
 Agria % /  
 %  
 PLRV %  
 PLRV

Picasso  
 / Ajax / ( )  
 AMV

Agria Morfona Morene  
 Aula  
 PVY AMV  
 PLRV

PLRV PVY

*M.Persicae*



( ) SE

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PLRV PVY

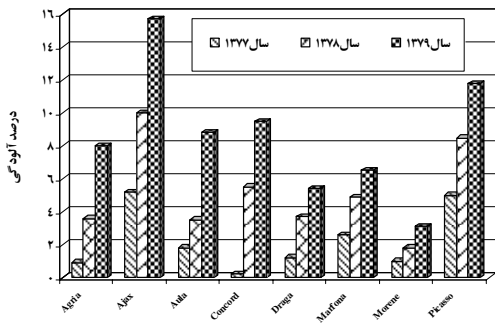
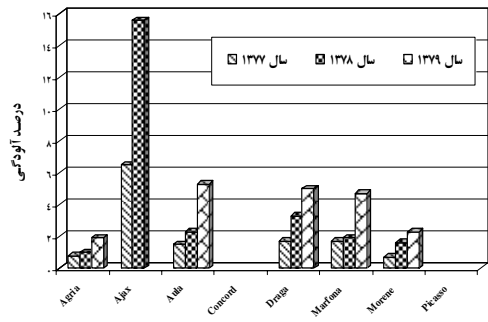
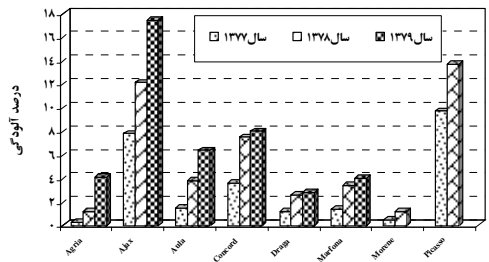
Ajax PVY /  
 Morene / /

Ajax  
 Draga Marfon Morene Agria Aula / / / /

PVY / Ajax  
 Morene Draga Agria  
 AMV AMV

*Therioaphis trifolii*

AMV  
 PLRV



( )  
 Morene Agria Ajax Aula Draga Marfona





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	PLRV	PVY	AMV		PLRV	PVY	AMV		PLRV	PVY	AMV		
/		/	/	/	/	/	/	/	/	/	/	/	Agria
				/	/	/	/	/	/	/	/	/	Ajax
/	/	/	/	/	/	/	/	/	/	/	/	/	Aula
	/	/	/	/	/	/	/	/	/	/	/	/	Draga
/	/	/	/	/	/	/	/	/	/	/	/	/	Marfona
/		/	/	/	/	/	/	/	/	/	/	/	Morene
/		/	/	/	/	/	/	/	/	/	/	/	

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*Th .trifolii*

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AMV

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*Th .trifolii*

AMV

Roughuing

## REFERENCES

- (AMV)
6. Blackman, R. L. & V. F. Eastop. 2000. Aphid's on the worlds. crops. An Identification and Information Guide, Department of Entomology, The Natural History Museum, second edition. John Wiley & sons. 46pp.
  7. Beukema, H.P. & D.E. Vanderzag. 1990 Interoduction of potato production. International Agricultural Center (IAC) wageningen . 179pp.
  8. Black, L. M., & W. C. Price. 1940.The Relationship between viruses of potato calico and alfalfa mosaic . Phythopatoyology. 30, 444 - 447.
  9. Caldizet, Do., Oh. Caso, Lv. Fernardz. & G. Vater. 1999. The potential for production of high quality seed potato Argentina. Potato research. 42: 1,9,23.P.
  10. De Bokx, J.A., & H. Huttinga. 1987. Potato viruses and seed potato production .International Agricultural Center (IAC) wageningen 259pp.
  11. Folsom, D., G. W. Simpson, & R. Bonde. 1955. Maine potato diseases, insects, and injuries . Maine Agricultur. Exp. Bull. 469.
  12. Fuentes, S., M. A. Mayo, C. A. Joliiy, M. Nacano, & L. F. Salasar. 1996. A novel luteovirus from sweet potato leaf speckling virus .Annels Appl. Biol. 128: 491 – 504 .
  13. Kennedy, J. S., M. F. Day, & V. F. Eastop. 1962.A conspectus of aphids as vectors of plant viruses . Commonwealth Institute of Entomology, London. 114pp . (in Farsi with English summary ).
  14. Raman, K.V. 1985. Transmission of potato viruses by aphids. Technical Information bulletin. International Potato Center. Lima Peru. 23pp.

15. Raman, K.V. 1984. Monitoring aphid populations. Technical Information bulletin. International Potato Center. Lima Peru. 12pp.
16. Rongai, D., & C. Cerato. 1997. Forecasting the best time for the desiccation of seed potato. Information- Agrario. 1997. 53: 17.51-56.
17. Salazar, L.F. 1996. Potato viruses and their control. International Potato Center (CIP), Lima, peru.66pp.
18. Sigvald, R. 1984. The relative efficiency of some aphid species as vectors of potato Viruses (PVYO). Potato research 27:285-299.
19. Sigvald, R.1985. Relationship between occurrence and spread of potato virus (PVY) in field experiment in southern sweden. Journal of applied entomology. 19.35-43.
20. Tahtacioglu, L., & H. Ozbek. 1997. Monitoring Aphids species and their population change on potato crop in Erzurum (Turkey) province throughout the growing season. Turkey entomology dergisi. East anatoli, 21(1), 9-25.
21. Van Harten, A. 1979. The relationship between aphid flights and the spread of potato Virus Y(PVY) In the Netherland. Potato Research 26:1-15.
22. Verzola, E.A. & T.A.Khayad. 1995. Aphis Incidence in selected potato growing areas. Phillippines Journal of Crop Science. ABS