

()

(*Cymbopogon parkeri* Stapf)

/ /

Cymbopogon

C. parkeri

Fusarium oxysporum *Rhizoctonia solani* *Pyricularia oryzae*

/ /

)

(/ % / %

()

Cymbopogon parkeri

...

Cymbopogon

()

()

)
 (/ .()
 (/)
 (.()
 ;
 ()
 () C. nardus () C. pendolus
 C. flexousus C. citratus () C. martinii
 () C. densiflorus () C. martinii
 () C. olivieri
 (Boiss.) Bor C. parkeri Stapf
 GC-9A C. olivieri
 (GC)
 (GC/MS)
 F.I.D³ shimadzu
 Chromatopac G-R3A (DB-5 ()
 DB-5 DB-5
 / .()
 C. parkeri

Varian 3400

Saturn II

Psi

Fusarium Rhizoctonia solani Pyricularia oryzae
oxyssporum

-
- 1. Hydro Distillation
 - 2. Clevenger
 - 3. Flame Ionization Detector

C. parkeri

(*Cymbopogon parkeri* stapf)

()

) Wiley 275

(GC/MS

(

)

()

Chromatopac CR3A

()

SAS

C. parkeri

Pyricularia

Fusarium oxysporum *Rhizoctonia solani* *oryzae*

=IP

=C

=T

PDA

PDA

C. parkeri

/ /

3. Fungicide

4. Fungi state

1. Area Normalization Method

2. Response Factor

%

()

()

()

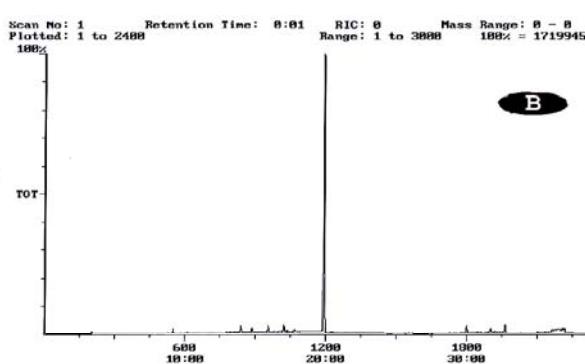
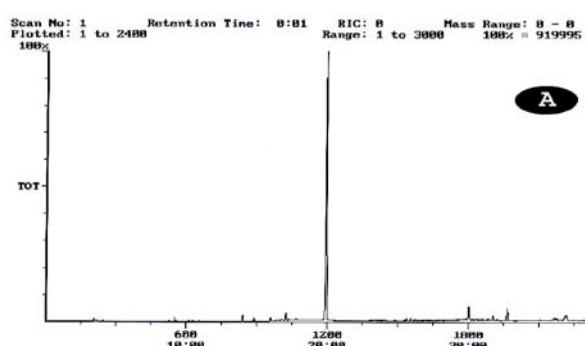
%

()

()

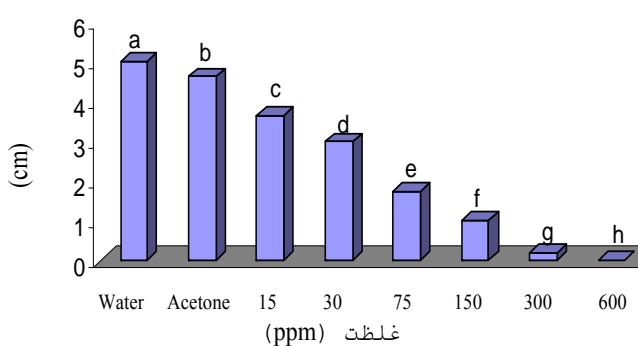
(C.parkeri)

	(RI*)	()
δ-3-carene	/	/
Cis-pinene hydrate	/	/
Trans-pinene hydrate	/	/
Santolinyl acetate	/	/
A-terpineol	/	/
piperitone	/	/
Germacrene-D	/	/
δ-cadinene	/	
elemol	/	/
A-eudesmol	/	
Total	/	/



:A .(*C. parkeri*)

:B .



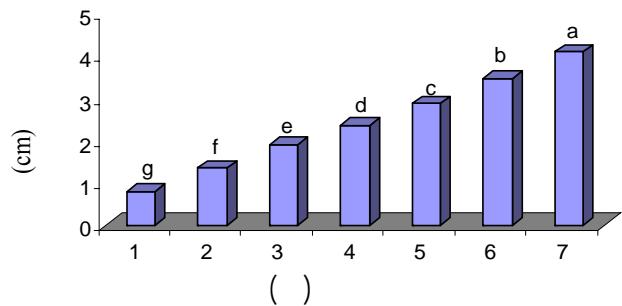
(C. parkeri)

%

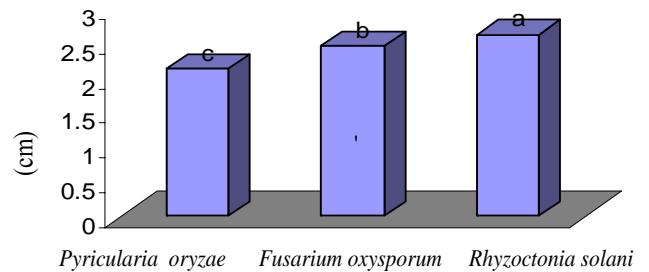
... (*Cymbopogon parkeri* stapf)

(*C.parkeri*)

()	<i>Pyricularia Oryzae</i>	<i>Fusarium oxysporum</i>	<i>Rhyzoctonia solani</i>
/	/	/	
/	/	/	
/	/	/	
/	/	/	
	/	/	



(*C. parkeri*)



(*C. parkeri*)

()

(/)

(*C. parkeri*)

) %

(

()

C. olivieri

C. parkeri

PDA

()

()

<i>C. parkeri</i>	()	(% /)	<i>C. nardus</i>
<i>Artemisia judaica</i>	()	()	<i>C. citratus</i>
	()	()	<i>C. martinii</i>
	()	()	<i>A. parasiticus</i>
	()	()	<i>C. winterianus</i> <i>C. flexousus</i> <i>C. martinii</i>

REFERENCES

5. Adams, R. P. 1995. Identification of essential oil components by Gas Chromatography/Mass spectroscopy. Allured Publishing. Carol stream, IL. 99 – 404.
6. Anam, K., A. Sivropoulou, S. Koklcini, T. Lanaras & M. Arsenakis. 1998. Antifungal activities of *Origanum vulgare* sub sp. *hirsutum*, *Mentha spicata*, *Lavandula angustifolia* and *Salvia fruticosa* essential oils against human pathogenic fungi. J. Agric. Food chem. 46:1793 – 1745.
7. Anonymous. 1984. Humgariana pharamacopoeia, VII Kiadas, I Kotet Medicine Publication.
8. Charcheri S., A. Dauoun, F. Bach, & A. Benslimani. 1996. In vitro antimicrobial activity of essential oils of *Artemisia judaica* from Algeria. Rivista Italiana EPPOS. 18:3 - 9.
9. Davies, M. W. 1990. J. Chromatography. 503: 1-24.
10. Debillerbeack, U.G., C.G. Roques, J. M. Bessiere, Fonvierille, J. L. & Dargent, R. 2001 Effects of *Cymbopogon nardus* (L.) W. Watson essential oil on the growth and morphogenesis of *Aspergillus niger*. Can. J. Microbio. 47: 9 – 17.
11. Hadjiakhoondi., A., H. Vatandoost, A. Jamshidi & E. B. Amiri. 2003. Chemical constituents and efficacy of *Cymbopogon olivieri* (Boiss.) Bor Essential oil against Malaria vector, *Anopheles stepensi*. DARU 11(3):125-28.

12. Jannings, W. & J. Shibamoto. 1980. Qualitative analysis of flavour and fragrance volatiles by capillary gas chromatography. New York, Academic press.
13. Kumar, S. 2000 *Cymbopogon*; The aromatic grass monograph. Central Institute of Medicinal & Aromatic Plants Lucknow, India.
14. Mahmoud, A.L.E. 1994. Antifungal action and antiaflatoxigenic properties of some essential oil constituents. Lett. Appl. Microbiol. 19:110-113.
15. Mathe, A. 1986. An ecological approach to medicinal plant introduction. Herbs, Spice and Medicinal Plants. Vol 3, Oryx press.
16. Misra, N., S. Batra & D. Mishra. 1988. Antifungal efficacy of essential oil of *Cymbopogon martinii* (lemon grass) against aspergillia. International J. of Crud Drug Research 26(2):73 – 76.
17. Moretti, D., E. Bazzoni, P. G. Sanna & R. Prota. 1998. Antifeedant effect of some essential oils of *Ceratitis capitata* wied (Diptera, Tephritidae). J. Essent. Oil Rep. 10: 405 – 412.
18. Muller-Riebau, F., B. Berger & O. Yegen. 1995. Chemical composition and fungi toxic properties to phytopathogenic fungi of essential oils of selected aromatic plants growing wild in Turkey. J. Agric. Food chem. 43:2262 - 2266.
19. Nakahara, K., N.S. Alzoreky, T. Yoshihashi, H.T.T Nguyen & G. Trakoontivakor 2003. Chemical composition and antifungal activity of essential oil from *Cymbopogon nardus* (citronella grass). Japan Agricultural Research Quarterly 37 (4): 249 – 252.
20. Norozi-Arasi, H., I. Yavari, F. Ghaffarzadeh, & M.S. Mortazavi. 2002 .Volatile constituents of *Cymbopogon olivieri*(Boiss.) Bor from Iran. Flavour Fragrance J. Volume 17(4):272-274.
21. Pandey, M.C., J.R. Sharma & A. Dikshit. 1996. Antifungal evaluation of essential oil of *Cymbopogon pendulus* (Neesex steud.)Wats. CV. Praman. Flavour Fragrance J. 11: 257 – 260.
22. Pattnak, S., V. R. Subramanyam., C.R. Kole & S. Shahoo. 1995. Antibacterial activity of essential oils from *Cymbopogon* ; Inter and intraspecific differences. Microbiss. 89: 239 – 245.
23. Rizka, M., H.I. Heiba. & M.P. Mashaly 1985. Constituents of plants growing in Qatar X. Seasonal variations of the volatile oil of *Cymbopogon parkeri* Staph. Qatar-University-Science-Bulletin 5: 71-76.
24. Rechinger, K. H. 1982. Flora desiranischem hoclondes and Der um rahmen den gebrirge. Akademische druku verlagws antalt graz. Australia, Vol 5. 514 – 545.
25. Regnault – Roger, C. & A. Hamraoui. 1994. Inhibition of reproduction of *Acanthoscelides obtectus* Say. (Coleoptera), a kindney bean (*Phaseolus vulgaris*) bruchid, by aromatic essential oils. Crop Prot. 13:624 – 628.
26. Saikia, D., S.P.S Khanuja, Kahol S. C. & S. Kumar. 2001. Comparative antifungal activity of the essential oils and constituent from three distinct genotypes of *Cymbopogon* spp. Current Science 80(10):1264 – 1266.
27. Shimoni, M., E. Puteviesk, V. Ravid & R. Revni. 1993. Antifungal activity of volatile fraction of essential oils from four aromatic wild plants in Israel. J. Chem. Ecol. 19: 1129 – 1133.
28. Takashi-kikuni, N. B., D. Tshilanda & B. Babady 2000. Antibacterial activity of the essential oil of *Cymbopogon densiflorous*. Fitoterapia 71:69-71.
29. Viollon, C. & S.P. Chaumont. 1994. Antifungal properties of essential oils and their main components upon *Cryptococcus neoformans*. Mycopathol.128:151 – 153.
30. Weiss, E.A. 1997. Essential oil crops. CAB International, New York (USA) , Oxen (UK).
31. Yanive, Z. & D. Palevitch 1982. Effect of drought on secondary metabolites of medicinal and aromatic plants – A review; In : Cultivation and uitization of medicinal plants. CSIR. Jamu-Tawi.
32. Zambouelli, A., A. Zechini-D'Aulerio, A. Biauchi & A. Albazini. 1996. Effects of essential oils on phytopathogenic fungi *in vitro*. J. Phytophatol.