# DR. YOUNES M. RASHAD

## ASSOCIATE PROFESSOR OF MICROBIOLOGY (FUNGI)

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| **PERSONAL INFORMATION** | Full Name: | Dr. Younes Mohamed Mohamed Rashad Mansour |
| | Affiliations: | Associate Professor of Microbiology, Department of Plant Protection and Biomolecular diagnosis, Arid Lands Cultivation Research Institute, City of Scientific Research and Technological Applications, Alexandria, Egypt. |
| | Address: | Universities and Research Centre District, New Borg El-Arab City, Postal Code 21934, Alexandria, Egypt. |
| | Mobile No.: | +20114 7618 112 |
| | E-mail: | younesrashad@yahoo.com , yrashad@srtacity.sci.eg |
| | Important links: | Scopus: https://07105wj8k-1106-y-https-www-scopus-com.mplbci.ekb.eg/authid/detail.uri?authorId=19337387200<br>Google Scholar: https://scholar.google.com.eg/citations?user=QyikbXUAAAAJ&hl=en<br>Researchgate: https://www.researchgate.net/profile/Younes_Rashad |
| **EDUCATION** | • **PhD degree in Microbiology (2010)**<br>Faculty of Science, Mansoura University, Egypt.<br>• **MSc degree in Microbiology (2005)**<br>Faculty of Science, Mansoura University, Egypt.<br>• **BSc degree in Botany – Chemistry (1996)**<br>Faculty of Science, Mansoura University, Egypt. | |
| **ACTIVITIES** | **Scientific Activities**<br>**PROFESSIONAL TRAINING** | |

- ✓ Online Training course on (Crop Pest Diagnosis-English V2.0), CABI Academy, Nosworthy Way, Wallingford, Oxfordshire, UK. (2020)
- ✓ Training course on (Applications of Scanning & Transmission Electron Microscopy and Zeta Analyzer), Electron Microscopy Unit, Faculty of Agriculture, Mansoura University, Egypt. (2015).
- ✓ Training course of Fungal Identification (*Fusarium, Aspergillus* and *Trichoderma* sp.) and preservations methods of fungi, Mycological center, Assuit University, Egypt (2013).
- ✓ Training course of E-learning managing (BlackBoard), King Saud University, Saudi Arabia (2010).

**REVIEWER**

- ✓ I have worked as a reviewer for many highly impacted international journals (Scientific Reports, Plant Disease, Crop Protection, Physiological and Molecular Plant Pathology, Microbial Biotechnology, Journal of Microbiology, Physiological and Molecular Plant Pathology, Scientia Horticulturae, Journal of Phytopathology, Journal of Genetic Engineering and Biotechnology and Applied Microbiology and Biotechnology).

**CONFERENCES**

- ✓ International Conference on the Microbiology and Biotechnology in Favour of Man and Environment in Africa and Arab region. **El-Mansoura, Egypt, 27-29 April, 2004**.
- ✓ 1st Annual Conference on Marketing of the Applied Researches. **El-Mansoura, Egypt, 17-19 April 2005**.
- ✓ 2nd Annual Conference on Marketing of the Applied Researches. **El-Mansoura, Egypt, 5-7 December 2006.**
- ✓ 1st International Conference for Biological and Environmental Sciences. **Hurghada, Egypt, 13-16 March 2008.**
- ✓ 2nd International Conference for Biological and Environmental Sciences. **Luxor, Egypt, 15-21 March 2010.**
- ✓ IOBC/WPRS Biocontrol of Plant Pathogens in Sustainable Agriculture, **Reims, France, 26-30 June 2012.**
- ✓ 48th Congress of the Southern African Society for Plant Pathology "Protecting our future", **Bela Bela, South Africa, 20-24 January 2013.**
- ✓ 5th World Congress on Biotechnology "Biotechnology: Meeting the needs of a changing world", **Valencia, Spain, 25-27 June 2014.**
- ✓ III International Symposium on Postharvest Pathology "Using Science to Increase Food Availability", **Bari, Italy, 7-11 June 2015.**
- ✓ 9th International Conference on Plant Protection in the Tropics "Healthy Crops for a Healthy World", **Kuching, Malaysia, 3-5 August 2016.**
- ✓ International Conference on Biotechnology and Environment, **Alexandria, Egypt, 1-3 November 2016.**
- ✓ International Egyptian Czech Conference on Nanotechnology Applications (IECCNA2017), **Cairo, Egypt, 10-11 October 2017.**

**WORKSHOPS**

- ✓ Workshop on "Research Ethics: Basics and Principles" **City of Scientific Research and Technological Applications, Alexandria, Egypt, 29th March 2016.**
- ✓ Workshop on "Nutritional and Therapeutic Uses of Honey Bee Products: 1- Bee Honey" **City of Scientific Research and Technological Applications, Alexandria, Egypt, 24th May 2016.**
- ✓ Workshop on "Climate Change and Agricultural sectors: Impacts, Vulnerability and Adaptation (CC-AD-02)" **City of Scientific Research and Technological Applications, Alexandria, Egypt, 25th May 2016.**
- ✓ Workshop on "Food Contaminants: Risk, Detection and Prevention" **City of Scientific Research and Technological Applications, Alexandria, Egypt, 26th Sep 2016.**
- ✓ Workshop on "Dairy Industry in Egypt: Problems and challenges" **City of Scientific Research and Technological Applications, Alexandria, Egypt, 19th April 2017.**
- ✓ Workshop on "Towards a Good Research" **City of Scientific Research and Technological Applications, Alexandria, Egypt, 15th May 2017.**
- ✓ Workshop on "Different Type of Electronic microscope components and their Importance in Analyzing Different samples in Various Scientific Fields in Professional way" **City of Scientific Research and Technological Applications, Alexandria, Egypt, 17-19 April 2018.**
- ✓ Workshop on "Impact of Climate Change on the Agricultural Sector" **Climate Change Information Center & Renewable Energy, Agricultural Research Center, Giza, Egypt, 10-12 Feb 2019.**
- ✓ Workshop on "Climate Change and its Relation with Plant Diseases" **Plant Pathology Research Institute, Agricultural Research Center, Giza, Egypt, 26 Feb 2019.**

**COMMUNITY ACTIVITIES**

- ✓ 1st National Fungus Day of Egypt "Together for Fungal Conservation" **Bibliotheca Alexandrina, Egypt, 20th February 2016**.
- ✓ 3rd National Fungus Day of Egypt "Putting Fungi on the Map" **Ashtoum El-Gamil Protectorate, Port-Said, Egypt, 20th February 2018**.
- ✓ 4th National Fungus Day of Egypt "Do You Imagine Life without Fungi?" **Supreme Council of Culture, Port-Said, Egypt, 24th February 2019.**
- ✓ 5th National Fungus Day of Egypt. **Egyptian Scientific Institute, Cairo, Egypt, 20th February 2020.**
- ✓ 6th National Fungus Day of Egypt. (**Online) 23th April 2021.**

**ORGANIZING**

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| | ✓ Organizing of the 1st International Conference for Biological and Environmental Sciences. **Hurghada, Egypt, ١٢-16 March 2008**.<br>✓ Organizing and teaching in the training course (Molecular Identification of Plants and Microbes as a Step for Gene Bank Development) held at Arid Lands Cultivation Research Institute, SRTA-City, **Borg El-Arab, Egypt, 11-28 October 2015**.<br>✓ Organizing of the training program (Biodiversity: Applications on Measurement & Statistical Analysis of Biological Data) held at Arid Lands Cultivation Research Institute, SRTA-City, **Borg El-Arab, Egypt, 25 June 2018.**<br>✓ Participating in the representative team of SRTA-City in 5th Cairo international Exhibition for Innovation, **Cairo, 8-9 Nov 2018**.<br>✓ Organizing of the training program of Winter School held at Arid Lands Cultivation Research Institute, SRTA-City, **Borg El-Arab, Egypt, 27 Jan – 7 Feb 2019**. |
| | **Administrative Activities**<br>➢ During my running work in SRTA-City, I have participated in many administrative committees (2015-now).<br>➢ I worked for 8 years as a lecturer of Microbiology, Science Department, Teacher's College, King Saud University, Saudi Arabia, (2008-2015). During this period, I have taught 10 undergraduate practical courses (Mycology, Virology, Bacteriology, Plant pathology, Applied microbiology, General biology, Food microbiology, Plant Taxonomy, Plant Morphology, and Archegoniates). In addition I have participated five administrative committees.<br>➢ I worked for 6 years as a microbiologist, Mycology and Plant Diseases Survey, Plant Pathology Institute, Agricultural Research Center, Giza, Egypt (2002-2008).<br>➢ I awarded a scholarship for PhD degree, Faculty of Science, Mansoura University, Egypt (2006-2009). During this grant, I have taught many undergraduate practical courses. |
| **GRANTS & AWARDS** | **FUNDED SCIENTIFIC PROJECTS**<br>I have participated in several scientific projects with a total fund of **1.8 million USD (≈29.3 million EGP)**<br>➢ (2009-2010) "Biological Control of Common Bean *Fusarium* Root Rot Disease Using Arbuscular Mycorrhizal Fungi". Research Center grants, King Saud University, Saudi Arabia.<br>➢ (2009-2011) "Microbiological and Biochemical Studies for Production of Anti-Fungal Bio-Compound(s) From Actinomycetes against Some Phytopathogenic Fungi". Sabic Scientific Research grants, Saudi Arabia.<br>➢ (2010-2011) "Detection of seed-borne mycoflora in alfalfa plant and control of the most prevalent pathogenic fungi". Research Center grants, King Saud University, Saudi Arabia. |

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| | ➢(2011-2013) "Development of Biological Fungicides Using Endemic Strains of *Streptomyces* spp. to Control Tomato Seed-Borne Pathogenic Fungi in Saudi Arabia. King Abdulaziz City for Science and Technology and King Saud University, Saudi Arabia.<br>➢(2014-2016) "Establishment of the first culture collection bank for seed-born pathogenic fungi in the Kingdom of Saudi Arabia". King Abdulaziz City for Science and Technology and King Saud University, Saudi Arabia.<br>➢(2016-2017) Bio-recycling of plant residuals to produce organic acids as potential bio-control agents and plant growth promoters. King Abdulaziz City for Science and Technology, Saudi Arabia.<br><br>➢In addition to **two running STDF grants** (**Newton-Mosharafa Program**) in association with two British Universities (Hertfordshire and Bedfordshire) UK. |
| | **Awards & Patent**<br><br>✓ Awarded **Abdelaal Moubasher Prize for Pioneer Scientists in Mycological Sciences** (2019).<br><br>✓ **Patent No. 4253 (granted in 15/8/2015)** from Saudi Patents Office, titled: "A novel strain of *Streptomyces* with potential antimicrobial activity against pathogenic fungi and bacteria". |
| **LIST OF PUBLICATIONS** | **Refereed Journal Articles**<br><br>1. Zein El Din, A.M., Ibrahim, M.F., Farag, R., Abd El-Gawad, H.G., EL-Banhawy, A., Alaraidh, I.A., **Rashad, Y.M.,** Lashin, I., Abou El-Yazied, A., Elkelish, A., and Abd Elbar, O.H. **2020**. Influence of polyethylene glycol on leaf anatomy, stomatal behavior, water loss, and some physiological traits of date palm plantlets grown in vitro and ex vitro. Plants .<br>2. Abd-ElGawad, A.M., **Rashad, Y.M.,** Abdel-Azeem, A.M., Al-Barati, S.A. Assaeed, A.M. and Mowafy A.M. **2020**. *Calligonum polygonoides* shrubs provide species-specific facilitation for the understory plants in coastal habitat. Biology 9(8): 232.<br>3. **Rashad, Y.M.,** Abbas, M.A., Soliman, H.M., Abdel-Fattah, G.G., and Abdel-Fattah, G.A. **2020.** Synergy between endophytic *Bacillus amyloliquefaciens* GGA and arbuscular mycorrhizal fungi induces plant defense responses against white rot of garlic and improves host plant growth. *Phytopathologia Mediterranea* 59(1): 169-186.<br>4. **Rashad, Y.M.**, Aseel, D.G., Hammad, S.M. and ElKelish, A.A. **2020.** *Rhizophagus irregularis* and *Rhizoctonia solani* differentially elicit systemic transcriptional expression of polyphenol biosynthetic pathways genes in sunflower. *Biomolecules* 10(3): 379.<br>5. Abbas, M.A., Soliman, H.M., **Rashad, Y.M.,** and Abdel-Fattah, G.G. **2020.** Diversity and taxonomical studies of arbuscular mycorrhizal communities in some Egyptian soils. *Mansoura Journal of Biology* 42(1): 1-10. |

6. Aseel, D.G., **Rashad, Y.M.**, and Hammad S.M. **2019.** Arbuscular Mycorrhizal Fungi Trigger Transcriptional Expression of Flavonoids and Chlorogenic Acid Biosynthetic Pathways Genes in Tomato against *Tomato Mosaic Virus*. *Scientific Reports* 9: 9692.
7. Hafez, E.E., **Rashad, Y.M.**, Abdulkhair, W.M., Al-Askar, A.A., Ghoneem, K.M., Baka Z.A., and Shabana Y.M. **2019.** Improving the Chitinolytic Activity of *Streptomyces griseorubens* E44G by Mutagenesis. *Journal of Microbiology, Biotechnology and Food Sciences* 8 (5): 1156-1160.
8. Al-Askar, A.A., Saber, W.I.A., Ghoneem, K.M., and **Rashad, Y.M. 2018.** Oxalic Acid as the Main Molecule Produced by *Trichoderma asperellum* MG323528 Fermented on Corn Stover Based Medium. *Biotechnology* 17(2): 95-103.
9. El-Sharkawy, H.H., **Rashad, Y.M.,** and Ibrahim, S.A. **2018**. Biocontrol of Stem Rust Disease of Wheat using Arbuscular Mycorrhizal Fungi and *Trichoderma* spp. *Physiological and Molecular Plant Pathology* 103: 84-91.
10. **Rashad, Y.M.,** Aseel, D.G., and Hafez, E.E. **2018**. Antifungal potential and defense gene induction in maize against Rhizoctonia root rot by seed extract of *Ammi visnaga* (L.) Lam. *Phytopathologia Mediterranea*, 57(1): 73-88.
11. Alsahli, A. A., Alaraidh, I.A., **Rashad, Y.M.**, and Abdel Razik, E.S. **2018**. Extract from *Curcuma longa* L. triggers the sunflower immune system and induces defence-related genes against Fusarium root rot. *Phytopathologia Mediterranea*, 57(1): 26-36.
12. **Rashad, Y.M.**, Al-Askar, A.A., Ghoneem, K.M., Saber W.I.A., and Hafez, E.E. **2017**. Chitinolytic *Streptomyces griseorubens* E44G enhances the biocontrol efficacy against *Fusarium* wilt disease of tomato. *Phytoparasitica*, 45(2): 227-237.
13. Saber W.I.A., Ghoneem, K.M., **Rashad, Y.M.,** and Al-Askar, A.A. **2017**. *Trichoderma harzianum* WKY1: An Indole Acetic Acid Producer for Growth Improvement and Anthracnose Disease Control in Sorghum. *Biocontrol Science & Technology*, 27(5): 654-676.
14. Baka Z.A., and **Rashad Y.M. 2016**. Alternative control of Early Blight disease of Tomato Using the Plant Extracts of *Acacia nilotica, Achillea fragrantissima* and *Calotropis procera. Phytopathologia Mediterranea*, ٥٥(١): 121-129.
15. Ghoneem, K.M., Saber W.I.A., El-Awady, A.A., **Rashad, Y.M.**, and Al-Askar, A.A. **2016**. Alternative Preservation Method against *Sclerotium* Tuber Rot of Jerusalem Artichoke Using Natural Essential Oils. *Phytoparasitica*, 44(3): 341-352.
16. Ghoneem, K.M., Saber W.I.A., El-Awady, A.A., **Rashad, Y.M.,** and Al-Askar, A.A. **2016**. Clove Essential Oil for Controlling White Mold Disease, Sprout Suppressor and Quality maintainer for Preservation of Jerusalem Artichoke Tubers. *Egyptian Journal of Biological Pest Control*, 26(3): 601-608.
17. Al-Askar, A.A., Baka Z.A., **Rashad, Y.M.**, Ghoneem, K.M., Abdulkhair, W.M., Hafez, E.E., and Shabana Y.M. **2015.** Evaluation of *Streptomyces griseorubens* E44G for the biocontrol of *Fusarium oxysporum* f. sp. *lycopersici*: Ultrastructural and Cytochemical Investigations. *Annals of Microbiology*, 65:1815-1824.
18. Al-Askar AA, **Rashad YM**, Hafez EE, Abdulkhair WM, Baka Z.A., and Ghoneem KM, **2015.** Characterization of Alkaline Protease Produced by *Streptomyces*

*griseorubens* E44G and Its Possibility for Controlling *Rhizoctonia* Root Rot Disease of Corn. *Biotechnology and Biotechnological Equipments,* 29(3): 457-462.

19. Saber W.I.A., Ghoneem, K.M., Al-Askar, A.A., **Rashad, Y.M.**, Ali A.A., and Rashad E.M. **2015**. Chitinase production by *Bacillus subtilis* ATCC 11774 and its effect on biocontrol of *Rhizoctonia* diseases of potato. *Acta Biologica Hungarica*, 66(4): 436-448.
20. Al-Askar, A.A., **Rashad, Y.M.,** and Abdulkhair, W.M. **2014**. Evaluation of the *antimicrobial* potential of selected *medicinal plant extracts* against some plant and human pathogens. *Journal of Pure and Applied Microbiology*, 8(1): 159-168.
21. Al-Askar, A.A., Abdulkhair, W.M., and **Rashad, Y.M. 2014**. Production, Purification and Optimization of Protease by *Fusarium solani* under Solid State Fermentation and Isolation of Protease Inhibitor Protein from *Rumex vesicarius* L. *Journal of Pure and Applied Microbiology*, 8(1): 239-250.
22. Al-Askar, A.A., Ghoneem, K.M., **Rashad, Y.M.**, Abdulkhair, W.M., Hafez, E.E., Shabana Y.M., and Baka Z.A. **2014.** Occurrence and distribution of tomato seed-borne mycoflora in Saudi Arabia and its correlation with the climatic variables. *Microbial Biotechnology*, 7(6):556-569.
23. Al-Askar, A.A., Abdulkhair, W.M., **Rashad, Y.M.**, Hafez, E.E., Ghoneem, K.M., and Baka Z.A. **2014.** *Streptomyces griseorubens* E44G: A Potent Antagonist Isolated from Soil in Saudi Arabia. *Journal of Pure and Applied Microbiology*, 8(Spl. Edn. 2): 221-230.
24. Al-Askar, A.A., **Rashad, Y.M.,** and Ghoneem, K.M. **2014**. Pathological Evaluation and Quantification of Some Seed-Borne Fungi of Wheat. *Journal of Pure and Applied Microbiology*, 8(Spl. Edn. 2): 303-320.
25. Al-Askar, A.A., **Rashad, Y.M.,** and Abdulkhair, W.M. **2013**. Antagonistic activity of endemic isolate of *Streptomyces tendae* RDS16 against some phytopathogenic fungi. *African Journal of Microbiology Research*, 7(6): 509-516.
26. Hafez, E.E., Abdel-Fattah, G.M., El-Haddad, S.A., and **Rashad**, **Y.M. 2013.** Molecular defense response of mycorrhizal bean plants infected with *Rhizoctonia solani*. *Annals of Microbiology*, 63(3): 1195-1203.
27. Al-Askar, A.A., Ghoneem, K.M., and **Rashad, Y.M. 2013.** Management of some seed-borne pathogens attacking alfalfa plants in Saudi Arabia. *African Journal of Microbiology Research*, 7(14): 1197-1206.
28. Al-Askar, A.A., Ghoneem, K.M., and **Rashad, Y.M. 2012.** Seed-Borne Mycoflora of Alfalfa (*Medicago sativa* L.) in the Riyadh Region of Saudi Arabia. *Annals of Microbiology*, 62(1): 273-281.
29. Ghoneem, K.M., Al Sahli, A.A., and **Rashad, Y.M. 2012**. Detecting of *Verticillium dahliae* on anise seeds using a new seed health testing technique. *African Journal of Microbiology Research*, 6(6): 1171-1177.
30. **Rashad Y.M.,** Abdel-Fattah G.M., Hafez, E.E., and El-Haddad, S.A. **2012**. Diversity among some Egyptian isolates of *Rhizoctonia solani* based on anastomosis grouping,

molecular identification and virulence on common bean. *African Journal of Microbiology Research*, 6(3٧): 6٦٦١ - 6٦٦٧.

31. Abdel-Fattah, G.M., El-Haddad, S.A., Hafez, E.E., and **Rashad**, **Y.M. 2011**. Induction of Defense Responses in Common Bean Plants by Arbuscular Mycorrhizal Fungi. Microbiological Research, *166(4): 268-281*.
32. Al-Askar, A.A., Abdulkhair, W.M., and **Rashad**, **Y.M. 2011.** *In vitro* Antifungal Activity of *Streptomyces spororaveus* RDS28 against some Phytopathogenic Fungi. *African Journal of Agricultural Research*, 6(12): 2835-2842.
33. Al-Askar, A.A., and **Rashad, Y.M. 2010**. Arbuscular Mycorrhizal Fungi: A Biocontrol agent Against Common Bean *Fusarium* Root Rot Disease. Plant Pathology Journal, 9(1): 31-38.
34. Al-Askar, A.A., and **Rashad, Y.M. 2010**. Efficacy of Some Plant Extracts against *Rhizoctonia solani* on Pea. *Journal of Plant Protection Research*, 50(3): 239-243.
35. Abdel-Fattah, G.M., El-Haddad, S.A., Hafez, E.E., and **Rashad, Y.M. 2009**. An ecological view of arbuscular mycorrhizal status in some Egyptian plants. Journal of Environmental Sciences, 37: 123-136.
36. Shabana, Y.M., Abdel-Fattah, G.M., Ismail, A.E., and **Rashad, Y.M., 2008**. Control of brown spot pathogen of rice (*Bipolaris oryzae*) using some phenolic antioxidants. *Brazilian Journal of Microbiology*, 39 (3): 438-444.
37. Abdel-Fattah, G.M., Shabana, Y.M., Ismail, A.E., and **Rashad, Y.M**., **2007**. *Trichoderma harzianum*: a biocontrol agent against *Bipolaris oryzae*. *Mycopathologia*, 164 (2): 81-89.

**BOOK CHAPTERS**

1. **Rashad Y.M.,** Moussa T.A.A. **2020**. Biocontrol Agents for Fungal Plant Diseases Management. In: El-Wakeil N., Saleh M., Abu-hashim M. (eds) Cottage Industry of Biocontrol Agents and Their Applications. Springer Nature Switzerland, Cham, pp 337-363, https://doi.org/10.1007/978-3-030-33161-0_11

2. **Rashad Y.M.,** Abdel-Azeem A.M. **2020**. Recent Progress on Trichoderma Secondary Metabolites. In: Hesham AL., Upadhyay R., Sharma G., Manoharachary C., Gupta V. (eds) Fungal Biotechnology and Bioengineering. Fungal Biology. Springer Nature Switzerland, Cham, Cham, pp 281-303, https://doi.org/10.1007/978-3-030-41870-0_12

3. **Rashad, Y.M.,** Aseel, D.G., Hammad S.M. **2020**. Phenolic Compounds against Fungal and Viral Plant Diseases. In: Lone R., Shuab R., Kamili A. (eds.) Plant Phenolics in Sustainable Agriculture. Springer Nature Singapore Pte Ltd. pp 201-219, https://doi.org/10.1007/978-981-15-4890-1_9

4. **Rashad, Y.M. 2020.** Exploring Plant Volatile Compounds in Sustainable Crop Improvement. In: Jogaiah, S. (ed.) Biocontrol Agents and Secondary Metabolites:

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| | Applications in Plant growth and protection. Woodhead Publishing, Elsevier, pp 459-468, https://doi.org/10.1016/B978-0-12-822919-4.00019-3<br><br>**BOOKS**<br><br>1. **Rashad Y.M.** *Eco-Friendly Control of Rice Brown Spot Disease*. LAP LAMBERT Academic Publishing, Germany. **2012** (In English), pp ١١٢.<br>2. Rashad Y.M. *Arbuscular Mycorrhizal Fungi: A biocontrol Agent Against Rhizoctonia Root Rot Disease of Common Bean.* LAP LAMBERT Academic Publishing, Germany. 2012 (In English), pp ١٤٤. |