

In The Name of God
❖ Dr. Mehdi Khayyat



➤ **Personal Details:**

- First name: Mehdi
- Last name: Khayyat
- Nationality: Iran
- Academic standing: Associate Professor in Horticultural Science (Pomology, Tree Crops)
- The president of Pomegranate Research Center of University of Birjand
- The Executive manager of JHPR (Journal of Horticulture and Postharvest Research)
- The consultant of landscaping and green management of University of Birjand
- The consultant of orchards and tree fruit production in University of Birjand
- Postal address for correspondence: Department of Horticultural Science, College of Agriculture, University of Birjand, Birjand, Iran
- Tel. (Office): +98-56-32254041-(288)
- Fax: +98-56-32254050
- Cell: +98-9151613328
- Email: mhdkhayyat@gmail.com ; mhdkhayat@birjand.ac.ir

➤ **Educational Background:**

- Diploma in: Experimental Sciences (12 years; since 1989-2000). Birjand, Iran.
- Bachelor of Science (B.Sc.) – Horticulture (4 years; since 2000-2004). University of Vali-e-Asr, Iran.
- Master of Science (M.Sc.) – Horticulture – Pomology (3 years; since 2004-2008). University of Shiraz, Iran.
- Doctor of Philosophy (Ph.D.) – Horticulture – Pomology (4.5 years; since 2009-2013). Ferdowsi University of Mashhad, Iran.

➤ **Thesis and Dissertation:**

- MSc. Degree: Effects of complementary use of potassium and calcium on vegetative and reproductive growth of strawberry (*Fragaria ananassa* Duch. cv. Selva) under saline condition. M.Sc. Thesis. Graduate Degree. Supervisor: Dr. E. Tafazoli.
- Ph.D. degree: Evaluation of the effects of salinity stress on morphological and physiological characteristics of Shishe Kab and Malas-e-Saveh pomegranate cultivars under field and greenhouse conditions. Ph. D. Dissertation. Supervisors: Dr. A. Tehranifar and Dr. GH. Davarinejad.

➤ **Area of Specialization:**

- Physiology of tree fruit crops
- Physiology of stress in tree fruit crops
- Plant nutrition
- Protected plant production (Greenhouse management)
- Rain-fed fruit production

➤ **Specific Scientific Interests:**

- Pomegranate, Pistachio, Fig, Barberry, Grapevine, Jujube, Almond and Cherry Tree Physiology and Production Manual
- Selection of Prefer Varieties
- Selection of Resistant Rootstocks for Salinity and Drought Stress
- Low Chill Varieties and Chilling Resistant Varieties of Fruit Trees
- Suitable Fruit Rootstock for Rain-Fed Statuses
- Seedling and Plug Production
- Organic Fruit Production

➤ **Teaching Experience:**

- General Horticulture
- Temperate Zone Fruits
- Tropical and Subtropical Fruits (Tropical and Semi-Tropical Zone Fruits)
- Small Fruit Crops
- Pomology Skills 1 & 2
- Plant Hormones (Plant Growth Regulators)
- Stress Physiology in Horticultural Crops
- Principles and Methods of Plant Propagation
- Greenhouse Management and Production
- Organic Orchard Management
- Plant Morphology and Systematics
- Principles of Horticultural Crops Nutrition
- Plant Nutrition and Metabolism
- Nut Crops
- Ornamental Trees and Shrubs
- Principles of Biotechnology and Plant Tissue Culture
- Tea and Tea Cultivation
- Principles of Organic Orchard Management
- Seminars and Projects
- Fruit cultivation and production under protected conditions
-

- **Research Projects:**

- Effect of pre-harvest bagging on some elements and postharvest physiology of pomegranate fruit in cold storage. (Birjand University, 2016 -2017).
- Effect of high CO₂ Shock packaging type on postharvest physiology of pomegranate fruit (cv. Shishe-Kab). (Birjand University, 2016 -2017).
- Improvement of cultural status of Barberry and Jujube using new methods regarding to: Propagation difficulties; Tolerance rate to salinity and drought stresses; Alternate bearing
- Evaluating the methods of anthocyanin accumulation increment in pomegranate fruit
- Design, construction and evaluation of a tree shaker for jujube fruit harvesting
- Horticultural Therapy, a promising method for mentally and physically health of human
- Establishment of drought-tolerance plant breeding center required by University of Birjand
- Surface disinfection of Horticultural products and nuts using different irradiation lights
- The methods of suckering control in Iranian pomegranates
- The biological herbicides
- Evaluation of different seeded-barberry ecotypes and bitter almonds in response to salinity, drought and boron toxicity stresses to develop their cultivation and establishment in forests of South Khorasan
- Evaluation of different pomegranate varieties in relation to aril paleness disorder in different regions of Iran

- **Publications (refereed journals, proceeding and conference):**

2025

Jahani, M., Zohan, M. S., Moradinezhad, F., **Khayyat, M.**, & Mirzaee, M. R. (2025). Effects of Shading Nets on Yield, Quality, and Aril Paleness in Pomegranate Cultivars. *Applied Fruit Science*, 67(4), 244.

Khayyat, M., Vazifeshenas, M., & Akbari, M. (2024). Pomegranate and salt stress responses—Assimilation activities and chlorophyll fluorescence performances: A Review. *Applied Fruit Science*, 66(6), 2455-2468.

2024

Jahani, M., Sayyari Zohan, M., Moradinezhad, F., Mirzaee, M. R., & **Khayyat, M.** (2024). Effectiveness of potassium spraying on mitigation of aril paleness disorder in different pomegranate cultivars. *Journal of Plant Nutrition*, 47(18), 3024-3034.

Zare, Z., **Khayyat, M.**, & Azarmi-Atajan, F. (2024). Effects of thiobacillus bacteria on physiology and vegetative growth of pomegranate. *Journal of Plant Nutrition*, 47(11), 1878-1889.

Khayyat, M., Vazifeshenas, M. R., & Akbari, M. (2024). Leaf temperature and peroxidase activity of bearing pistachio cultivars. *Journal of Horticulture and Postharvest Research*, 7(3), 237-248.

2023

Khayyat, M. (2023). The First Report on Nutrient Distribution and Resorption in Mature Alternate Bearer Seedless Barberry Trees: Storage Pools of Nitrogen, Phosphorus, Potassium and Carbohydrates. *Erwerbs-Obstbau*, 1-10.

- **Khayyat, M.**, Mazhari-Majd, A., & Samadzadeh, A. (2023). Alternate Bearing, Chlorophyll Fluorescence Performance, Vegetative Growth and Fruit Quality of Seedless Barberry Under Different Mulching Treatments. *Erwerbs-Obstbau*, 65(1), 171-180.
- **Khayyat, M.**, & Samadzadeh, A. (2023). Application of kaolin on different chemical and physical properties of pomegranate. *Journal of Plant Nutrition*, 46(7), 1391-1399.

2022

- Hosseini, A., Moradinezhad, F., **Khayyat, M.**, & Aminifard, M. H. (2022). Bioactive Compounds and Quality Attributes of Fresh Seedless Barberry

(*Berberis vulgaris* L.) at Cold Storage as Influenced by Multiple Spraying of Calcium Nitrate and Potassium Nitrate. *Journal of Agricultural Sciences (Sri Lanka)*, 17(2).

- **Khayyat, M.** (2022). Summer pruning on seedless barberry: preliminary results on alternate bearing behavior. *Journal of Horticulture and Postharvest Research*, 5(3), 221-230.

•

2021

- Maity, A., **Khayyat, M.**, Azarmi-Atajan, F., Agehara, S., & Sarkhosh, A. (2021). 9th chapter: Soil and Nutrition. In: *The Pomegranate: Botany, Production and Uses*, Page 285-320. CABI.
- Afsane Hosseini, Farid Moradinezhad, **Mehdi Khayyat** & Mohammad Hossein Aminifard. 2021. Influence of Foliar Application of Calcium Nitrate and Potassium Nitrate On Qualitative and Quantitative Traits of Seedless Barberry (*Berberis vulgaris* L.). *Erwerbs-Obstbau*. DOI: doi.org/10.1007/s10341-021-00553-x.
- Arefnezhad, Z., **Khayyat, M.**, Zahan, M. H. S., & Zamani, G. (2021). Effects of gibberellic acid on total carbohydrate of shoots, vegetative growth and flower production in barberry plants. *J. Nutr. Food Sci. Technol.*, 2(1), 1-9.
- Hosseini, S. A., Ghaemi, M., & **Khayyat, M.** (2021). Responses of pepper to Alfalfa mosaic virus and manganese nutrition under greenhouse conditions: preliminary results. *Journal of Horticulture and Postharvest Research*, 4(Special Issue-Plant Nutrition in Horticulture), 67-80.
- **مهدی خیاط**، سوسن چمنی اصغری، فرید مرادی نژاد. ۱۳۹۹. اثر کلرید کلسیم و بسته بندی پالستیکی نانو دکو ایتالیایی بر خواص کیفی و بیوشیمیایی میوه انار رقم شیشه کب نگهداری شده در انبار سرد. پژوهش های میوه کاری. جلد ۵ (۱): ۱۶-۲۸.

2020

- **Mehdi Khayyata**, Zahra Baratia, Mohammad Hossein Aminifarda, and Alireza Samadzadeh. 2020. Anthocyanin Accumulation and Color Development in Seedless Barberry (*Berberis vulgaris* L.) Fruits: The Role of Altitude and Sun Light - the Preliminary Results. *INTERNATIONAL JOURNAL OF FRUIT SCIENCE*. VOL. 20, NO. S2, S955–S968.
- Mohammad Hossein Aminifard, Mahboobeh Askarian, **Mehdi Khayyat** and Mehdi Jahani. 2020. Evaluation of biochemical parameters and antioxidant activity of basil (*Ocimum basilicum* L.) in response to fulvic acid and fertilizer (NPK). *Iranian Journal of Horticultural Science*. Vol 50, No 4, (791-802).

- Seyyede Atefeh Hosseini and **Mehdi Khayyat**. 2020. Chlorophyll fluorescence response of 'Yusef Khani' and 'Malase-Yazdi' pomegranate varieties under salinity stress. JOURNAL OF HORTICULTURE AND POSTHARVEST RESEARCH. VOL. 3 (SPECIAL ISSUE: ABIOTIC AND BIOTIC STRESSES IN HORTICULTURAL CROPS), 79-90.
- M. Askarian, M.H. Aminifard, **M. Khayyat** and M. Jahani. 2020. Effects of Different Levels of NPK Fertilizer and Fulvic Acid on Morphological Characteristics, Yield and Yield components of Basil as a Medicinal Plant (*Ocimum basilicum* L.). Journal of Agroecology. 11 (4): 1375-1388.
- A. Hosseini, F. Moradinezhad, **M. Khayyat** and M.H. Aminifard. 2020. Effects of foliar application with calcium chloride and calcium nitrate during growth and development stages on the quantitative and qualitative characteristics of barberry fruit (*Berberis vulgaris* L.). Iranian Journal of Medicinal and Aromatic Plants, Vol. 35, No. 6: 1028-1043.
- Farid Moradinezhad, Mina Mohammadian Moqadam, **Mehdi Khayyat**. 2020. Influence of GA3 and boric acid foliar application on bioactive compounds and quality of pomegranate fruit (*Punica granatum* L.). JOURNAL OF HORTICULTURE AND POSTHARVEST RESEARCH. VOL. 3 (1): 101-114.
- Farid Moradinezhad, Soheyla Hajizadegan, Mohammad Hassan Sayyari and **Mehdi Khayyat**. 2020. Physiological, chemical and growth responses of summer savory (*Satureja hortensis* L.) to boron under greenhouse conditions. JOURNAL OF HORTICULTURE AND POSTHARVEST RESEARCH. VOL. 3 (SPECIAL ISSUE: ABIOTIC AND BIOTIC STRESSES IN HORTICULTURAL CROPS), 43-52.
- Sensory analysis - Methodology - General guidance for measuring odour, flavour and taste detection thresholds by a three-alternative forced-choice (3-AFC) procedure. 2020. 1st Revision. INSO. 13965. Identical With: ISO 13301:2018

2019

- Mina MOHAMMADIAN MOGHADDAM, Farid MORADINEZHAD, **Mehdi KHAYYAT**. 2019. HEAT REQUIREMENT OF POMEGRANATE FRUIT: A CASE STUDY ON SHISHE-KAB CULTIVAR. Cercetări Agronomice în Moldova. Vol. LII, No. 3 (179): 299-311.
- Farid Moradinezhad, **Mehdi Khayyat**, Fatemeh Ranjbari, Zahra Maraki. 2019. Vacuum packaging optimises quality and reduces postharvest losses of pomegranate fruits. JOURNAL OF HORTICULTURE AND POSTHARVEST RESEARCH. VOL. 2 (SPECIAL ISSUE: POSTHARVEST LOSSES OF HORTICULTURAL CROPS), 15-26.
- Farzaneh Hamed Sarkomi, Farid Moradinezhad and **Mehdi Khayyat**. 2018. Pre-harvest bagging influences sunburn, cracking and quality of pomegranate fruits. JOURNAL OF HORTICULTURE AND POSTHARVEST RESEARCH. 2019, VOL. 2(2), 37-48.

2018

- Mina MOQHADDAM*, Zeinab AREFNEZHAD, **Mehdi KHAYYAT**. 2018. EFFECT OF TWO GIRDLING DATES ON CARBOHYDRATE ACCUMULATION IN PLANT TISSUES AND FRUIT QUALITY OF BARBERRY. *Journal of Horticultural Research* 2018, vol. 26(2): 55-60.
- Seyyedeh Atefeh Hosseini, Gholam Reza Zamani, Zadeh Mostafa Yaghub and **Mehdi Khayyat**. 2018. Effects of Cucumber Mosaic Virus infection and drought tolerance of tomato plants under greenhouse conditions: Preliminary results. *Journal of Berry Research* 8:129–136.
- **Mehdi KHAYYAT**, Mani JABBARI, Hamid-Reza FALLAHI, Alireza SAMADZADEH. 2018. Effects of corm dipping in salicylic acid or potassium nitrate on growth, flowering, and quality of saffron. *Journal of Horticultural Research*. 26(1): 13–21
- F. Moradinezhad, **M. Khayyat** and Z. Maraki. 2018 .Changes in Anthocyanin and Fruit Quality Attributes of Barberry (*Berberis vulgaris* L.) Grown in Different Altitude During Growth and Maturation. *The Journal of Agricultural Sciences - Sri Lanka*. 13 (3): 227-236.
- Ranjbari, F., F. Moradinezhad, and **M. Khayyat**. 2018. Effect of Nitric Oxide and Film Wrapping on Quality Maintenance and Alleviation of Chilling Injury on Pomegranate Fruit. *J. Agr. Sci. Tech*. 20: 1025-1036.
- **Mehdi Khayyat**, Hashem Amini, Saeed Moodi, Farid Moradinezhad, Sohrab Mahmoodi, 2018. Effects of potassium metabisulfite pre-treatment and different drying temperatures on some chemical properties and color retention of Russian Olive. *JOURNAL OF HORTICULTURE AND POSTHARVEST RESEARCH*. 1 (1): 49-62.
- **Khayyat. M.**, Z. Arefnezhad, M.H. Sayyari Zahan, GH. Zamani. 2018. The first report on alternate bearing of barberry (*Berberis vulgaris* L.): change in total carbohydrate and phenolic contents. *Journal of Horticultural research*. 26 (1): 45-52.
- Ahmadi,F., Aminifard, M.H., **Khayyat, M.** and Samadzade, A.R. 2018. Effects of humic acid and corm density on saffron yield and yield components in the second year. *Saffron Agronomy & Technology*. 5 (2): 197- 207
- **Khayyat, M.**, F. Safikhani, M. Jahani, F. Moradinezhad. 2018. Effect of sodium meta-bisulfite chemical pretreatment and drying temperatures on qualitative characteristics of barberry fruit. *Journal of Food Science and Technology*. 74 (15): 181-190.
- Moradinezhad, F., **M. Khayyat**, M. Mohamadian Moqadam. 2018. Influence of gibberellic acid and boric acid foliar application on physicochemical properties and quality of pomegranate fruit (*Punica*

granatum L.). 7th National Congress on Medicinal Plants. Shiraz, Iran, 12-14 May.

- Arefnezhad, Z., **M. Khayyat**, M. Mohamadian Moqadam, A. Naseri Moqadam. 2018. Effect of different girdling times on fruit retention and quality, total chlorophyll and carotenoid in barberry plant. 7th National Congress on Medicinal Plants. Shiraz, Iran, 12-14 May.
- Moradinezhad, F., A. Hoseini, **M. Khayyat**. 2018. Impact of calcium nitrate and potassium nitrate foliar application on postharvest quality of seedless barberry (*Berberis vulgaris* L.) fruit. 7th National Congress on Medicinal Plants. Shiraz, Iran, 12-14 May.
- **Khayyat, M.**, Z. Barati, M.H. Aminifard, A. Samadzadeh. 2018. Changes in fruit maturity indices and growth pattern along the harvest season in seedless barberry under different altitude conditions. *Journal of Berry Research*. 8: 25-40.
- Moradinezhad, F., **M. Khayyat**, F. Ranjbari, Z. Maraki. 2018. Physiological and quality responses of Shishe-Kab pomegranate to short-term high CO₂ treatment and modified atmosphere packaging. *International Journal of Fruit Science*. 18 (3): 287-299.
- Ghesmati, M. Moradinezhad, F. and **Khayyat, M.** (2018). Efficacy of calcium salts foliar spray on growth and biochemical parameters of jujube fruit (*Ziziphus jujuba* Mill.) *The Plant Production (Scientific Journal of Agriculture)*, DOI: 10.22055/ppd.2017.21173.1447 (in Farsi).

• مانى جبارى، مهدى خياط، حميدرضا فلاحي و عليرضا صمدزاده. ۱۳۹۷. اثر محلولپاشى با ساليسيليك اسيد و نيترات پتاسيم بر محتوای کلروفیل، نشت الکتروليت و رشد پيازهای دخترى زعفران. نشریه پژوهشهای زعفران (دو فصلنامه). ۶ (۱): ۲۷-۴۹.

• فرید مرادی نژاد، مهدى خياط، مينا محمدیان مقدم. ۱۳۹۷. Influence of gibberellic acid and boric acid foliar application on physicochemical properties and quality of pomegranate fruit. --- هفتمین کنگره ملی گیاهان دارویی. ۲۲ تا ۲۴ اردیبهشت-شیراز.

• زینب عارف نژاد، مهدى خياط، مينا محمدیان مقدم، علی ناصری مقدم. ۱۳۹۷. Effect of different girdling times on fruit retention and quality, total chlorophyll and carotenoid in barberry plants. --- هفتمین کنگره ملی گیاهان دارویی. ۲۲ تا ۲۴ اردیبهشت-شیراز.

• فرید مرادی نژاد، افسانه حسینی، مهدى خياط. ۱۳۹۷. Impact of calcium nitrate and potassium nitrate foliar application on postharvest quality of seedless barberry fruit. --- هفتمین کنگره ملی گیاهان دارویی. ۲۲ تا ۲۴ اردیبهشت-شیراز.

- فرید مرادی نژاد، مینا محمدیان مقدم، **مهدی خیاط**. ۱۳۹۶. تاثیر محلولپاشی برگ‌ی اسید بوریک و اسید جیبرلیک بر عملکرد میوه انار. پوستر. اولین همایش ملی فرصت‌های نوین، تولید و اشتغال بخش کشاورزی در شرق کشور (در راستای تحقق اقتصاد مقاومتی).
- فرید مرادی نژاد، **مهدی خیاط**، فاطمه رنجبری، زهرا مرکی. ۱۳۹۶. تاثیر پاکت گذاری قبل از برداشت بر کیفیت و کلسیم میوه انار پس از دوره انبار سرد. پوستر. اولین همایش ملی فرصت‌های نوین، تولید و اشتغال بخش کشاورزی در شرق کشور (در راستای تحقق اقتصاد مقاومتی).
- فلاحی، حمیدرضا، مرتضی قربانی، مهسا اقحوانی شجری، علیرضا صمدزاده، **مهدی خیاط**، زهرا مرکی، امیرحسین اسعدیان. ۱۳۹۶. ارزیابی خصوصیات رنگ کاسبرگ در گیاه دارویی چای ترش (*Hibiscus sabdariffa* L.) تحت تاثیر مدیریت آبیاری، تلقیح با دوگونه قارچ میکوریزا و مصرف اسید هیومیک. تنش‌های محیطی در علوم زراعی. ۱۰ (۴): ۵۷۱-۵۸۲.
- مهدی قسمتی، فرید مرادی نژاد، **مهدی خیاط**. ۱۳۹۷. اثر محلولپاشی برگ‌ی نمک‌های کلسیم بر خصوصیات فیزیکی و بیوشیمیایی میوه عناب رقم چینی. تولیدات گیاهی (مجله علمی کشاورزی). ۴۱ (۳): ۳۷-۲۵.
- فرزانه حامدی سرکمی، فرید مرادی نژاد، **مهدی خیاط**. ۱۳۹۷. اثر پوشاندن میوه قبل از برداشت بر برخی از خصوصیات فیزیکی-شیمیایی و کیفیت انار رقم شیشه‌کپ. نشریه پژوهش‌های تولید گیاهی. ۲۵ (۲): ۱۵۲-۱۳۹.

2017

- Ahmadi, F., M.H. Aminifard, **M. Khayyat** and A.R. Samadzade. 2017. Evaluation of humic acid and planting density on flower yield and vegetative characteristics of saffron (*Crocus sativus* L.). Iranian Journal of Medicinal and Aromatic Plants. 33 (2): 293-303.
- Jabbari, M., **Mehdi Khayyat**, Hamid Reza Fallahi and Alireza Samadzadeh. 2017. Influence of saffron corm soaking in salicylic acid and potassium nitrate on vegetative and reproductive growth and its chlorophyll fluorescence indices. Saffron Agronomy & Technology. 5 (1): 21-35.
- Ahmadi, F., Mohammad Hossein Aminifard, **Mehdi Khayyat** and Ali Reza Samadzade. 2017. Effects of different humic acid levels and planting density on antioxidant activities and active ingredients of saffron (*Crocus sativus* L.). Saffron Agronomy & Technology. 5 (1): 61-71.
- Qesmati, M., F. Moradinezhad, **M. Khayyat**. 2017. Evaluation of some physical characteristics of jujube fruits under application of different

calcium salts. International Conference on Agriculture, Environment and Natural Resources in The Third Millennium. Rasht, Iran.

- Qesmati, M., F. Moradinezhad, **M. Khayyat**. 2017. Postharvest application of calcium salts on some qualitative and quantitative characteristics of jujube fruits. International Conference on Agriculture, Environment and Natural Resources in The Third Millennium. Rasht, Iran.
- Moradinezhad, F., M. Qesmati, **M. Khayyat**. 2017. Effect of hot water, CO₂ and high nitrogen treatments on physico-chemical and quality characteristics of jujube. 1st International Conference and 10th National Horticultural Science Congress of Iran. Tehran, Iran.
- Ghesmati, M., F. Moradinezhad, **M. Khayyat**. 2017. Effects of foliar application of calcium nitrate and calcium chloride on antioxidant properties and quality of Ziziphus jujube Mill. Iranian Journal of Medicinal and aromatic Plants. 33 (5): 871-881.

- فرید مرادی نژاد، مهدی قسمتی، **مهدی خیاط**. ۱۳۹۶. اثر تیمارهای آب گرم، شوک دی اکسید کربن و نیتروژن بالا بر خصوصیات فیزیولوژیکی و کیفی میوه تازه عنب. پوستر، نخستین کنفرانس بین المللی و دهمین کنگره ملی علوم باغبانی ایران (IrHC2017). دانشگاه تربیت مدرس.
- فلاحی ح، قربانی م، اقحوانی شجری م، صمدزاده ع، خیاط م، مرکی ز، اسعدیان ا. ۱۳۹۶. ارزیابی خصوصیات رنگ کاسبرگ در گیاه دارویی چای ترش تحت تاثیر مدیریت آبیاری، تلقیح بادوگونه قارچ مایکوریزا و مصرف اسید هیومیک. تنش های محیطی در علوم زراعی. ۱۰ (۴): ۵۷۱-۵۸۲.
- مهدی قسمتی، فرید مرادی نژاد، **مهدی خیاط**. ۱۳۹۶. اثر کاربرد پس از برداشت املاح کلسیم بر خصوصیات کمی و کیفی میوه عنب. پوستر. کنفرانس بین المللی کشاورزی، محیط زیست و منابع طبیعی در هزاره سوم. رشت، ۱ خرداد.
- مهدی قسمتی، فرید مرادی نژاد، **مهدی خیاط**. ۱۳۹۶. ارزیابی برخی خصوصیات فیزیکی میوه عنب تحت تاثیر کاربرد نمک های مختلف کلسیمی. پوستر. کنفرانس بین المللی کشاورزی، محیط زیست و منابع طبیعی در هزاره سوم. رشت، ۱ خرداد.
- فرید مرادی نژاد، مینا محمدیان مقدم، **مهدی خیاط**. ۱۳۹۶. تاثیر محلول پاشی برگی اسید بوریک و اسید جیبرلیک بر عملکرد میوه انار. اولین همایش ملی فرصت های نوین، تولید اشتغال بخش کشاورزی در شرق کشور. ۲۵ بهمن ماه ۱۳۹۶، دانشگاه بیرجند.
- فرید مرادی نژاد، مهدی خیاط، فاطمه رنجبری، زهرا مرکی. ۱۳۹۶. تاثیر شوک دی اکسید کربن بالا و نوع بسته بندی بر فیزیولوژی پس از برداشت میوه انار رقم شیشه کب. طرح تحقیقاتی.
- فرید مرادی نژاد، مهدی خیاط، فرزانه حامدی سرکمی. ۱۳۹۶. تاثیر کیسه کردن پیش از برداشت بر میزان برخی عناصر و فیزیولوژی پس از برداشت میوه انار در انبار سرد. طرح تحقیقاتی.

2016

- **Khayyat, M.,** A. Tehranifar, GH. Davarinejad, MH. Sayyari Zahan. 2016. Effects of NaCl salinity on some leaf nutrient concentrations, non-photochemical quenching and the efficiency of the PSII photochemistry of two Iranian pomegranate varieties under greenhouse and field conditions: Preliminary results. *Journal of Plant Nutrition*. 39 (12): 1752–1765.
- Moradinizhad, F., Fatemeh Setayesh, Sohrab Mahmoodi, **Mehdi Khayyat**. 2016. Physiological properties and nutritional value of jujube (*Ziziphus jujube* Mill.) fruit at different maturity and ripening stages. *International Journal of Horticultural Science and Technology*. 3 (1): 43-50.
- Mohammad Hossein Aminifard and **Mahdi Khayyat** and Hassan Bayat. 2016. Estimation of Leaf Area in Coneflower (*Echinacea purpurea* L.) Using Independent Variables. *Journal of Ornamental Plants*, Volume 6, Number 4: 245-251.
- Moradinezhad, F., F. Ranjbari, **M. Khayyat**. 2016. Increasing the antioxidant activity and improvement of pomegranate aril color after application of nitric oxide. The 1st National and International Conference of Environmental Science, Agriculture and Natural Resources. Hamadan, Iran.
- Ranjbari, F. F. Moradinezhad, **M. Khayyat**. 2016. Effect of nitric oxide on biochemical and antioxidant properties of pomegranate fruit cv. Shishe Kab during cold storage. *International Journal of Horticultural Science and Technology*. 3 (2): 211-219.

2015

- Saadati Moghadam, R., **M. Khayyat**, M. Jahani, S. Parsa, F. Moradinezhad. 2015. Evaluating the effects of potassium nitrate and moist chilling on seed germination of *Teucrium polium*. The 3rd National Conference of IRANs Environmental and Agricultural Research. Hamadan, Iran.

2014

- **Khayyat, M.,** A. TEHRANIFAR, G.H. DAVARYNEJAD, M.H. SAYYARI-ZAHAN. 2014. Vegetative growth, compatible solute accumulation, ion partitioning and chlorophyll fluorescence of ‘Malas-e-Saveh’ and ‘Shishe-Kab’ pomegranates in response to salinity stress. *PHOTOSYNTHETICA*. 52 (2): 301-312.

- **Khayyat, M.**, F. Moradinezhad, N. Safari, S. F. Nazari, H. Saeb, and A. Samadzadeh 2014. SEED GERMINATION OF BASIL AND CRESS UNDER NACL AND BORON STRESS. *Journal of Plant Nutrition*. 37:2281–2290.
- Farid Moradinezhad, **Mehdi Khayyat**. 2014. Effects of Intermittent Warming and Prestorage Treatments (Hot Water, Salicylic Acid, Calcium Chloride) on Postharvest Life of Pomegranate Fruit cv. ‘Shishe-Kab’ during Long-Term Cold Storage. *International Journal of Horticultural Science and Technology*. 1 (1): 43-51.
- Hajizadehgan Soheila, Moradinezhad Farid, Sayyari Mohammad Hassan, **Khayyat Mehdi**. 2014. Germination Response of Savory (*satureja hortensis*) Seeds to Boron Stress Condition. The 1st International Congress on Agronomy and Plant Breeding. Karaj. Iran.
- Hajizadehgan Soheila, Moradinezhad Farid, Sayyari Mohammad Hassan, **Khayyat Mehdi**. 2014. Evaluating some physiological traits of Savory (*satureja hortensis*) plants to Boron Stress Condition. The 1st International Congress on Agronomy and Plant Breeding. Karaj. Iran.
- Moradinezhad, F., **M. Khayyat**, A.R. Sajjadinia. 2014. Evaluation of nutrient solution pH on chlorophyll index, chlorophyll fluorescence and photosynthetic efficiency of *Tanacetum balsamita*. The 3rd National Congress on Hydroponic and Greenhouse Production. Isfahan, Iran.
- Moradinezhad, F., **M. Khayyat**, A.R. Sajjadinia. 2014. Effect of humic acid spraying on vegetative and physiological characteristics of *Tanacetum balsamita*. The 3rd National Congress on Hydroponic and Greenhouse Production. Isfahan, Iran.

2013

- Farid Moradinezhad, **Mehdi Khayyat**, Hoda Saeb .2013. Combination effects of postharvest treatments and modified atmosphere packaging on shelf life and quality of Iranian pomegranate fruit cv. Sheshi-kab. *International Journal of Postharvest Technology and Innovation*. 3 (3): 244-256.
- H.Saeb, **M.Khayyat**, A.Zarezadeh, F.Moradinezhad, A.Samadzadeh, M.Safaei 2013. Effects of NaCl stress on seed germination attributes of periwinkle (*Catharanthus roseus* L.) and corn poppy (*Papaver rhoeas* L.) Plants. *Plant Breeding and Seed Science*. 67: 115-123.
- Moradinezhad, F., **Mehdi Khayyat**, Davood Ataee. 2013. QUALITY IMPROVEMENT AND SHELF LIFE EXTENSION OF FRESH

SEEDLESS BARBERRY: A MEDICINAL FRUIT. 2nd National Congress on Medicinal Plants. 15, 16 May 2013. Tehran- Iran.

2012

- Aminifard, M. H., H. Aroiee, H. Nemati, M. Azizi, and **M. Khayyat** 2012. Effect Of Nitrogen Fertilizer On Vegetative And Reproductive Growth Of Pepper Plants Under Field Conditions. *Journal of Plant Nutrition*. 35: 235-242.
- Zahra NEMATI, Ali TEHRANIFAR, Mohammad FARSI, Amin MIRSHAMSI KAKHKI, Hossein NEMATI, **Mehdi Khayat**. 2012. Evaluation of Genetic Diversity of Iranian Pomegranate Cultivars Using Fruit Morphological Characteristics and AFLP Markers. *Not Bot Horti Agrobo*. 40 (1): 261-268.
- **Khayyat, M.**, A. Tehranifar, M. Zaree, Z. Karimian, M.H. Aminifard, M.R. Vazifeshenas, S. Amini, Y. Noori, M. Shakeri 2012. Effects of Potassium Nitrate Spraying on Fruit Characteristics of 'Malas Yazdi' Pomegranate. *Journal of Plant Nutrition*. 35: 1387-1393.
- Ali Shahi-Gharahlar, Ali Reza Yavari, **Mehdi Khayyat**, Neda Jalali, Rozbeh Farhodi. 2012. Effects Of Soaking Temperature, Stratification, Potassium Nitrate And Gibberellic Acid On Seed. *Journal of Plant Nutrition*. 35: 1735-1746.
- Moradinezhad, F., **Mehdi Khayyat**, Davood Ataee. 2012. Combination effect of hot water, salicylic acid and vacuum packaging on shelf life and control of postharvest diseases of fresh seedless barberry. Abstracts of 7th International Postharvest Symposium 2012 (IPS2012). 25-29 June, 2012. Putra World Trade Centre (PWTC), Kuala Lumpur, Malaysia. 238 pages.
- Moradinezhad, F., **Mehdi Khayyat**, Davood Ataee. 2012. Effect of blanching, 1-MCP and controlled atmosphere storage on quality and postharvest life of fresh seedless barberry. Abstracts of 7th International Postharvest Symposium 2012 (IPS2012). 25-29 June, 2012. Putra World Trade Centre (PWTC), Kuala Lumpur, Malaysia. 238 pages.
- Farid Moradinezhad , Davoud Ataii, Mehdi khayyat and Mehdi Jahani. Combination effect of hot water, salicylic acid and vacuum packaging on shelf life and control of postharvest diseases of fresh seedless Barberry. In the 7th International Postharvest Symposium. Malaysia, Kuala Lumpur. 25-29 June 2012.
- Farid Moradinezhad , Nasim Safari and Mehdi Khayyat. Effect of chemical preservatives on enhancing vase life and quality of Narcissus cut flowers. In

the 7th International Postharvest Symposium. Malaysia, Kuala Lumpur. 25-29 June 2012.

- Farid Moradinezhad, Davoud Ataii, Mehdi khayyat and Mehdi Jahani. Effect of blanching, 1-MCP and controlled atmosphere storage on quality and postharvest life of fresh seedless Barberry In the 7 th International Postharvest Symposium. Malaysia, Kuala Lumpur. 25-29 June 2012.
- Farid Moradinezhad, Mehdi khayyat, Hoda Saeb, Marzieh Mohammadrezai and Ali Tehranifar. Effect of intermittent warming, hot water and chemical treatments on reducing chilling injury and quality improvement in Shishe-Kab Pomegranate fruits stored at chilling temperature. In the 7th International Postharvest Symposium. Malaysia, Kuala Lumpur. 25-29 June 2012.
- Farid Moradinezhad, Seedeheh Fatemeh Nazari, Nasim Safari and Mehdi Khayyat. Effect of chemical treatments on shelf life and quality of fresh mushrooms. In the 7th International Postharvest Symposium. Malaysia, Kuala Lumpur. 25-29 June 2012.
- Farid Moradinezhad, Mehdi khayyat, Hoda Saeb, Marzieh Mohammadrezai and Mehdi Jahani. Shelf life extension and quality improvement of pomegranate fruits using combination of chemicals, hot water and packaging. In the 7th International Postharvest Symposium. Malaysia, Kuala Lumpur. 25-29 June 2012.

2011

- **Khayyat**, M., S. Khanizadeh, E. Tafazoli, S. Rajaei, B. Kholdebarin, Y. Emam 2011. Effects of Different Calcium Forms on Gas Exchange Activities, Water Usage and Macronutrient Uptake by Strawberry Plants under NaCl Stress. Journal of Plant Nutrition. 34: 427-435.
- Mahmoodabadi, M.R., A.M. Ronaghi, **M. Khayyat**, Z. Amirabadi 2011. Effects of Sheep Manure on Vegetative and Reproductive Growth and Nutrient Concentrations of Soybean (*Glycine max* L.) Plants under Leaching and Non-Leaching Conditions. Journal of Plant Nutrition. 34: 1593-1601.
- Sajjadinia, A., **M. Khayyat**, H.R. Karimi 2011. Effect of organic and inorganic substrates on vegetative and ecophysiological characteristics of coleus (*Coleus blumei*). Journal of Science and Technology of Greenhouse Culture. 2 (5): 55-61.
- Sajjadiia, A., A. Ershadi, H. Hokmabadi, **M. Khayyat**, S. Rajaei. 2011. Investigation of RWC and WUE between six Iranian commercial pistachio (*P. vera* L.) cultivars. Acta Horticulturae. 912: 151-153

- خیاط مهدی، علی تهرانی فر، محمدرضا وظیفه شناس. ۱۳۹۰. اثرات محلولپاشی نیترات پتاسیم بر خصوصیات انار ملس یزدی. پوستر. همایش ملی انار. ۱۳ و ۱۴ مهرماه فردوس.

2010

- Sajjadinia, A., A. Ershadi, H. Hokmabadi, **M. Khayyat**, M. Gholami..2010. Gas Exchange Activities and Relative Water Content at Different Fruit Growth and Developmental Stages of ON and OFF Cultivated Pistachio Trees- Australian Journal of Agricultural Engineering. 1 (1): 1-6.
- **Khayyat, M.**, S. Rajaei, M. Shayesteh, A. Sajjadinia, F. Moradinezhad 2010. Effect of potassium nitrate on breaking bud dormancy in strawberry (*Fragaria ananassa* Duch.) plants. Journal of Plant Nutrition. 33: 1605-1611.

2009

- **Khayyat, M.**, S. Rajaei, A. Sajjadinia, S. Eshghi, E. Tafazoli. 2009. Calcium Effects on Changes in Chlorophyll Contents, Dry Weight and Micronutrients of Strawberry (*Fragaria × ananassa* Duch.) Plants Under Salt-stress Conditions. Fruits, 64 (1): 53-59
- Vazifeshenas, M. R., **M. Khayyat**, S. Jamalnia and A. R. Samadzadeh. 2009. Effects of Different Scion-Rootstock Combinations on Vigor, Tree Size, Yield and Fruit Quality of Three Iranian Cultivars of Pomegranate. Fruits. 64 (6): 343-349.
- **Khayyat, M.**, M. R. Vazifeshenas, S. Rajaei and S. Jamalnia 2009. Potassium Effect on Ion Leakage, Water Usage, Fruit Yield and Biomass Production By Strawberry Plants Grown Under NaCl Stress. Journal of Fruit and Ornamental Plant Research. 17 (1): 79-88.
- **Khayyat, M.**, E. Tafazoli, S. Rajaei, M. Vazifeshenas, M. R. Mahmoodabadi, A. Sajjadinia 2009. Effects of NaCl and Supplementary Potassium on Gas Exchange, Ionic Content, and Growth of Salt-Stressed Strawberry Plants. Journal of Plant Nutrition. 32: 907-918
- Mahmoodabadi, M. R. A. Ronaghi, **M. Khayyat**, and Gh. Hadarbadi. 2009. Effects Of Zeolite And Cadmium On Growth And Chemical Composition Of Soybean (*Glycine max* L.). Tropical and Subtropical Agroecosystems. 10: 515-521.
- Vazifeshenas, M. R., Rad, H., **Khayyat, M.**, 2009. Identification and introduction of frost tolerant pomegranate varieties. 1st National Abiotic Stress in Agricultural Science. Birjand, Iran.

2008

- **Khayyat Mehdi**, Mahmoodabadi Mohammad Reza, Khayyat Ali Reza, and Rajaei Soheila. 2008. Evaluation of Manganese, Boron, Potassium, Calcium

and Zinc Effects on Yield and Fruit Quality of Barberry (*Berberis vulgaris* L.) Plants. Hort. Environ. Biotechnol. 49(5): 293-297.

2007

- **Khayyat, M.,** E. Tafazoli, S. Eshghi and S. Rajaei. 2007. Effect of Nitrogen, Boron, Potassium and Zinc Sprays on Yield and Fruit Quality of Date Palm. American-Eurasian Journal of Agriculture. & Environmental Science. 2 (3): 289-296.
- **Khayyat, M.,** F. Nazari and H. Salehi 2007. Effects of Different Pot Mixtures on Pothos (*Epipremnum aureum* Lindl. and Andre 'Golden Pothos') Growth and Development. American-Eurasian Journal of Agriculture. & Environmental Science. 2007, 2 (4): 341-348.
- **Khayyat, M.,** E. Tafazoli, S. Eshghi, M. Rahemi and S. Rajaei. 2007. Salinity, Supplementary Calcium and Potassium Effects on Fruit Yield and Quality of Strawberry (*Fragaria ananassa* Duch.). American-Eurasian Journal of Agriculture. & Environmental Science. 2 (5): 539-544