



CURRICULUM VITAE

Name: Mohammad Zamanian

Member of Scientific board, Department of Maize and Forage Crops, Seed and Plant Improvement Institute, Karaj, Iran.

Research Grade: Associate Professor

Current address: Department of Maize and Forage Crops, Seed and Plant Improvement Institute, Karaj, Iran.

Email: M_Zamaniyan@yahoo.com / M.Zamanian@areeo.ac.ir

Education

- Doctor of Philosophy in Agronomy-Crop Physiology (2009-2013) from Khuzestan Agricultural Sciences and Natural Resources University , Mollasani , Khuzestan, Iran.
- Master of Science in Agronomy (1995-1998) from Trabiati Modaress university, Thran, Iran.
- B Sc in Agronomy and breeding (1988-1990) from Zanzan university, Zanzan, Iran.

Publications

1. Zamanian, M., and Yamada, T. 2017. *Selecting of Clover Germless in Cold Stress Condition: A review . International Journal of Advanced life Science (IJALS)*. 10(4): 393-407.
2. Zamanian, M., Shahverdi, M. 2017. *Stability of forage yield of promising lines of Persian clover. Seed and Plant Improvement Journal*. 33(1): 177-194.
3. Alizadeh, B., Mostavafi, Kh., and Zamanian, M. 2017 . *Study of drought tolerance of Berseem and Persian clover cultivars. Journal of Agronomy and Plant Breeding*. 12(4): 67-76.
4. Dodangheh, M., Zamanian, M., and Foorozesh, P. 2017 . *The effect of planting date on forage quality of different cultivars of clover. Journal of Agronomy and Plant Breeding*. 13(1): 1-10.
5. Zamanian, M. 2017. *Mix cropping of multiy and one cut Persian clover, suitable method for quantity and qulity forage clover increase. Research Achievements for Field and Horticulture Crops Journal*. Vol. 5(1): In press
6. Zamanian, M. 2017. *The relation among low temperature with chlorophyll fluorescence and leaf chlorophyll contents of clover spp. Journal of plant process and function. Isfahan University*. Vol. 6(17): In press.
7. Danajoo, H.R., Zamanian, M., and Amine, Z. 2017. *Study of Planting date effect on quality and quantity seed yield of clover promising cultivars. Iran Journal of Seed Science and technology*. Vol. 6(1): In press
8. Zamanian, M. 2017. *Investigation the effect of intercropping of Persian clover cultivars on quantitative and qualitative forage yield. Journal of Agroecology. Shahid-e-Behshiti University*. 6(2): In press

9. Zamanian, M., Rezai, M. 2016. Investigation of yield and forage quality of Persian clover lines (*Trifolium resupinatum* L.) under Karaj climatic condition. *Iranian Journal of Crop Science*. 36(4): 179 -193.
6. Zamanian, M. 2016. Evaluation of Forage Yield and Morphological Characteristics of Imported Berseem Clover Cultivars. *Seed and Plant Improvement Journal*. 32(1): 1-13.
7. Zamanian, M. 2016. The relation among low temperature with chlorophyll fluorescence and leaf chlorophyll contents of clover spp. *Journal of plant process and function*. Isfahan University.
8. Zamanian, M. 2016. Investigation the effect of intercropping of Persian clover cultivars on quantitative and qualitative forage yield. *Journal of Agroecology*. Shahid-e-Behshti University.
9. Zamanian, M. 2014. Role of Persian clover early lines and Crimson clover in forage production in water deficiency regions. *Research Journal of Crop Science in Arid Area*. Zabol University. 1(1): 36-46.
10. Zamanian, M. 2014. Delay Cropping Effect on Forage Yield of Clover Cultivars in Karaj area. *Seed and Plant Improvement Journal*, Zabol University. 30(2): 375-385.
11. Mosavi, A.A. R.Chokan², M.Zamanian, M.J.Mirhadi. 2014. An investigation and comparison of quantitative yield and morphological properties of Persian clover (*Trifolium resupinatum*) lines in Karaj. *Research – Scientific Quarterly Plant and Ecosystem*, Number 37 . 69-79.
12. Zamanian, M., Syadaat, Ata., Fahti, Gh., Choukan, R., Jafari, A.A., Bakhshandeh, Ab., and Moghadam, A. 2013. Study of chlorophyll fluorescence attributes use in selection of cold tolerated cultivars in species clover. *Seed and Plant Improvement Journal*. 29(2): 251-267.
13. Zamanian, M., Syadaat, Ata., Fahti, Gh., Choukan, R., Jafari, A.A., Bakhshandeh, Ab., and Moghadam, A. 2013. Assessment of Required Growing Degree Days for Phenological Stages of Four Clover Species in Different Planting Dates. *Seed and Plant Improvement Journal*. 29(2): 139-167.
14. Zamanian, M., Akbari-Rad, M., Abbasi, M.R., Mehrani, A., Moghadam, A., Zarifian, N., Chabok, KH., Talebnejad, A.R., and Torabi. 2013. *Alborz1* ,a new Crimson clover cultivar suitable of cropping systems based on clover planting. *Research Achievements for Field and Horticulture Crops Journal*. 1(2): 107-116.
15. Zamanian, M., Akbari-Rad, M., Rahjoo, V., Abbasi, M.R., Mehrani, A., Moghadam, A., Yaghmouri, S., Talebnejad, A.R., Nourbakhshian, J., Mokhtarpour, H., and Solimanpoor, Sh. 2013. *Nassim* ,a new cultivar of Red clover for enhancement of forage production in cropping systems in Iran. *Research Achievements for Field and Horticulture Crops Journal*. 1(1): 75-82 .
16. Abbasi, M.R., Mirakhorli, A., Mahdipur, A., Hasanzadeh, A., Kanani, R., Alitabar, R.A., Mokhatarpur, H., Safaei, H., Fathi, A., Khakizad, Gh.R., Nadali, F., Nakhaei, A., Kamaledin Abbasi, M., Dadfar, S., Hajgholizadeh, Gh., Taheriun, Gh.R., Safari, S., Hamzenejad, A., Abaduz, Gh.R., Zamanian, M., Jahanbani, F., Samani, M., and Darkhal, H. 2013. Seed collection and centers of diversity of *Trifolium* genetic resources in Iran. *Electronic Journal Crop Production (EJCP)*. 5(4): 191-204.
17. Zamanian, M., Akbari-Rad, M., Abbasi, M.R., Zarifian, N., Chabok, KH., Alavi, V., Talebnejad, A.R., and Torabi, M. 2012. *Alborz1* ,a new Crimson clover cultivar. *Seed and Plant Improvement Journal*. 28(3): 377-380.
18. Zamanian, M., Akbari-Rad, M., Abbasi, M.R., Rahjoo, V., Yaghmouri, S., Talebnejad, A.R., Nourbakhshian, J., Mokhtarpour, H., and Solimanpoor, Sh. 2012. *Nassim* ,a new Red clover cultivar. *Seed and Plant Improvement Journal*. 28(3): 377-380.

19. Abbasi, M.R., Zamanian, M., Nadali, F. 2010. New pre-breeding genetic resources of Iranian wild clover for using in agronomic systems. *Iranian Journal of Rangelands and Forests Plant Breeding and Genetic Research*. 18(2): 305-317.
20. Abbasi, M.R., Zamanian, M., and Nadali, F. 2009. New pre-breeding genetic resources of Iranian wild clovers for using in agronomic systems. *Iranian Journal of Rangelands and Forests Plant Breeding and Genetic Research* Vol. 18, No. 2. 305-317.
21. Mohammad Javad Zareaa, , Amir Ghalavanda, Ebrahim Mohammadi Goltapehb, Farhad Rejalic, Mohammad Zamaniand. 2009. Effect of mixed cropping ,earthworms (*Pheretima* sp.) and arbuscular mycorrhiza fungi(*Glomus mosseae*) on plant yield, mycorrhiza colonization rate ,soil microbial biomass, and nitrogenase activity of free-living rhizosphere bacteria. *Pedobiologia*. 52 (2009), pp 233 -235.
22. Zamanian, M . 2009. Assessment and comparison of potential forage yield of red clover cultivars. *Seed and Plant Improvement Journal*. 25(1): 95-108.
23. Zamanian, M . 2005. Effect of planting dates and harvesting pattern on forage and seed yields of Berseem clover (*Trifolium alexandrinum*) in Karaj region. *Iranian Journal of Range & Desert Research*, Vol. 11, No. 4, PP. 315-364.
24. Zamanian, M . 2005. The effects of planting season on forage production clover species. *Seed & plant (Journal of Agricultural Research)*, Vol. 21, No. 2, PP.
25. Zamanian, M . 2005. Determination of growth degree days (GDDs) for growth stages and forage and seed production Berseem clover. *Seed & plant (Journal of Agricultural Research)*, Vol. 21, No. 1, PP. 23-26.
26. Zamanian, M . 2004. Comparison of forage yield of five Alfalfa cultivars under saline condition. *Iranian Journal of Soil & Water Sciesnces*, Vol. 18, No. 1, PP. 80-90.
27. Zamanian, M . 2004. Comparison of forage yield of clover species and cultivars in furrow condition of climatolog of Karaj. *Iranian Journal of Range & Desert Research*. Vol. 11, No. 2, PP. 213-227.
28. Zamanian, M . 2003. Evaluation of quantitive and qualitive forage yield of alfalfa varieties in different cuts. *Agricultural Science and Natural Resources journal*, Vol. 10, No. 1, PP. 73-82.
29. Zamanian, M . 2003. Comparison of forage yield and morphological characters of clover cultivars. *Iranian Journal of Crops Sciences*, Vol. 6, No. 3, PP.
30. Zamanian, M . 2002. Assessment of row spacing and plant density effects on silage yield and morphological characters of corn (SC 704). *Seed and Plant Journal*, Vol. 18, No. 2, PP. 200-214.
31. Zamanian, M . 2000. Morphological and agronomic characters of seven alfalfa cultivars affecting forage yield. *Seed and Plant Journal*, Vol. 16, No. 2, PP: 1-19.
32. Zamanian, M. 1999. Study of potential yield of sorghum cultivars in cold condition of Hamadan. *Seed and Plant journal*, Vol. 15, No. 2, PP: 121-131.
33. Zamanian, M . 1999. Physiological indices affecting growth and forage yield of seven alfalfa cultivars. *Iranian Journal of Crop Science*, Vol. 1, No. 4, PP: 13-

Conferences attended

1. Assessment morphological and agronomic characters affecting on forage yield of seven alfalfa cultivars in Karaj region. **The 5th Iranian congress of crop production and plant breeding.** Aug. 31- Sep. 4., 1998, Karaj- Iran.

2. *Introduction of one forage sorghum cultivar in Hamadan region.* **The 5th Iranina congress of crop production and plant breeding. Aug. 31- Sep. 4., 1998, Karaj- Iran.**
3. *Assessment and comparison quntitive and qualitive yield of five forage sorghum cultivars in three Iran region.* **The 5th Iranina congress of crop production and plant breeding. Aug. 31- Sep. 4., 1998, Karaj- Iran.**
4. *Assessment and comparison yield and determination ecological adaptation of cultivars and exotic germplasms of clover.* **The 6th Iranian congress of crop production and plant breeding. 3-6 Sep. 2000, Babolsar, University of Mazandaran, Iran.**
5. *Assessment and evaluation agronomic, technical and economic of silage corn (SC 704) and harvest chaper in different density and space row.* **The 6th Iranian congress of crop production and plant breeding. 3-6 Sep. 2000, Babolsar, University of Mazandaran, Iran.**
6. *Evaluation quantitive and qualitive forage yield of alfalfa cultivars in different cuts.* **The 6th Iranian congress of crop production and plant breeding. 3-6 Sep. 2000, Babolsar, University of Mazandaran, Iran.**
7. *Assessment planting date and harvesting time method effecting on seed yield of Berseem clover.* **The 6th Iranian congress of crop production and plant breeding. 3-6 Sep. 2000, Babolsar, University of Mazandaran, Iran.**
8. *Assessment quantitive and qualitive forage yield and morphological characters of alfalfa cultivars in salinity farms of Qom province.* **The 7th Iranina congress of crop production and plant breeding. Aug. 24-26, 2002, Karaj, Iran.**
9. *Assessment and comparison forage yield of lines persian clover.* **The 7th Iranian congress of crop production and plant breeding. Aug. 24-26, 2002, Karaj, Iran.**
10. *Assessment forage yield and morphological characters of Red clover cultivars in condition of Karaj.* **The 7th Iranina congress of crop production and plant breeding. Aug. 24-26, 2002, Karaj, Iran.**
11. *Assessment and determination the best cut for seed production of Berseem clover in region Karaj.* **The 7th Iranian congress of crop production and plant breeding. Aug. 24-26, 2002, Karaj, Iran.**
12. *Assessment and comparison regrowth rate of clover cultivars.* **The 7th Iranian congress of crop production and plant breeding. Aug. 24-26, 2002, Karaj, Iran.**
13. *Determination of growth degree days of phenological stage Berseem clover.* **The 8th Iranian Congress of Crop Production and Plant breeding. 25-27 Aug. 2004, University Guilan, Iran.**
14. *The best model of agrothetical for seed and forage production in Berseem clover.* **The 8th Iranian Congress of Crop Production and Plant breeding. 25-27 Aug. 2004, University Guilan, Iran.**
15. *Assessment and determination forage prosuct potenial of clover cultivars.* **The 8th Iranian Congress of Crop Production and Plant breeding. 25-27 Aug. 2004, University Guilan, Iran.**

16. Allelopathic potential of *Trifolium resupinatum* and *Trifolium alexandrinum* on seed germination of four weed species. **Proceeding of the 16th Iranian Plant protection Congress. Volume 2; Plant Diseases and Weed.**
17. Agronomy and economical study of planting date, seeding rate and planting method effects on forage yield in persian clover. **First National Forage Crops Congress of Iran, (proceeding).**
18. Comparison of forage yield of selected lines of persian clover. **First National Forage Crops Congress of Iran, (proceeding).**
19. Yield Potential, major traits in yield and grouping of multi-cut persian Clover. **First National Forage Crops Congress of Iran, (proceeding).**
20. Effect of summer planting on Quality and quantity forage of clover cultivars in Karaj region.
- 1st International Congress on the development of Agriculture Science and Natural Resources Poland, Monday 7 Dec. 2015.**
21. Effect of season on quality and quantity forage of clover cultivars in Karaj region. **2nd International conference on sustainable development, strategies and challenges With a focus on Agriculture, Natural Resources, Environment and Tourism 23-25 Feb 2016, Tabriz , Iran.**
22. Effect of Persian clover and Berseem clover intercropping on quality and quantity forage yield in Karaj. **2ndInternational and 14th National Iranian Crop Science Congress. 30 Aug.-1 Sep. 2016. Guilan University Rasht, Iran**
23. Quality and quantity yield evaluation of Crimsom clover and Berseem clover in intercropping. **2ndInternational and 14th National Iranian Crop Science Congress. 30 Aug.-1 Sep. 2016. Guilan University Rasht, Iran**
24. Effects of mixed cropping ratio of legume - cereal on quantity hay yield in paddy fields of Rasht area. **2ndInternational and 14th National Iranian Crop Science Congress. 30 Aug.-1 Sep. 2016. Guilan University Rasht, Iran**
25. The amount of seed and seed ratios on yield and forage quality in the Persian clover and crimson clover. **2ndInternational and 14th National Iranian Crop Science Congress. 30 Aug.-1 Sep. 2016. Guilan University Rasht, Iran**
26. Evaluation of land equivalent ratio in intercropping of Berseem and Persian clover. **National Conference on Research and Technology Finding in Natural and Agricultural of Ecosystems.19 Oct. 2016. Tehran University.**
27. Evaluation of quality forage in intercropping of Berseem and Crimson clover. **National Conference on Research and Technology Finding in Natural and Agricultural of Ecosystems.19 Oct. 2016. Tehran University.**
28. Evaluation of yield forage and physiological characters of Persian clover ecotypes in drought stress conditions. **5th National Confereance of Iranian Society of Plant Physiology.30-31 Aug. 2017. Zanzan University**
29. Evaluation of physiological characters of Persian clover ecotypes in drought stress conditions. **5th National Confereance of Iranian Society of Plant Physiology.30-31 Aug. 2017. Zanzan University.**

- 30. Effect of summer planting on Quality and quantity forage of clover cultivars in Karaj region. 1st International Congress on the development of Agriculture Science and Natural Resources Poland, Monday 7 Des. 2015.**
- 31. Effect of season on quality and quantity forage of clover cultivars in Karaj region. 2nd International conference on sustainable development, strategies and challenges With a focus on Agriculture, Natural Resources, Environment and Tourism. 23-25 Feb 2016, Tabriz, Iran.**
- 32. Effect of Persian clover and Berseem clover intercropping on quality and quantity forage yield in Karaj. 2nd International and 14th National Iranian Crop Science Congress. 30 Aug.-1 Sep. 2016. Guilan University Rasht, Iran.**
- 33. Quality and quantity yield evaluation of Crimsom clover and Berseem clover in intercropping. 2nd International and 14th National Iranian Crop Science Congress. 30 Aug.-1 Sep. 2016. Guilan University Rasht, Iran**
- 34. Effects of mixed cropping ratio of legume - cereal on quantity hay yield in paddy fields of Rasht area. 2nd International and 14th National Iranian Crop Science Congress. 30 Aug.-1 Sep. 2016. Guilan University Rasht, Iran**
- 35. The amount of seed and seed ratios on yield and forage quality in the Persian clover and crimson clover. 2nd International and 14th National Iranian Crop Science Congress. 30 Aug.-1 Sep. 2016. Guilan University Rasht, Iran**
- 36. Evaluation of land equivalent ratio in intercropping of Berseem and Persian clover. National Conference on Research and Technology Finding in Natural and Agricultural of Ecosystems. 19 Oct. 2016. Tehran University.**
- 37. Evaluation of quality forage in intercropping of Berseem and Crimson clover. National Conference on Research and Technology Finding in Natural and Agricultural of Ecosystems. 19 Oct. 2016. Tehran University.**
- 38. Important Indicators in Selection of Persian clover Germplasm under Cold Stress Conditions (A review). 11th ASIJ conference, 2-3 Des. 2017 Tokyo- Japan. Zamanian, M., and Yamada, T. 2017.**

Teaching and workshop

1. The teaching and workshop in education center of Mazandaran province, 2006
2. The teaching and workshop for experts of IRAQ country, 2006
3. The teaching of food legume crops in Ahwaz University, 2009
4. The teaching and workshop for experts of lebnan country, 2010
5. The teaching and workshop in education center of Boosheher province, 2010
6. The teaching and workshop in education center of Qhazveen province, 2011

Supervisor of Thesis M.Sc

- **Study of planting dates on quantity and quality forage yield of different clover cultivars. 2104. Thesis of M.Sc. Islamic Azad University Islam-e- Shahr Branch Faculty of Agriculture Department of Agronomy. 149Pp.**
- **Effect study of planting date on quantity and quality seed of different clover cultivars. 2014. Thesis of M.Sc. Islamic Azad University Islam-e- Shahr Branch Faculty of Agriculture Department of Agronomy. 109Pp.**

- **Mix cropping effects study of early and lately cultivars Persian clover on quantity and quality forage production. 2014.** Thesis of M.Sc. Islamic Azad University Islam-e-Shahr Branch Faculty of Agriculture Department of Agronomy.96Pp.
- **Paraquaet effect on increasing of quantity and quality seed production of Crimson clover. 2014.** Thesis of M.Sc. Islamic Azad University Islam-e- Shahr Branch Faculty of Agriculture Department of Agronomy.101Pp.
- **Agro ecological Investigation of the two varieties of Persian clover intercropping.2015.** Thesis of M.Sc. Jifoft University Branch Faculty of Agriculture Department of Agronomy.75Pp.
- **Assessment of different seed rates on quantitative and quantitative forage in mix cropping of Crimson clover and Persian clover. 2016.** Thesis of M.Sc. Pajama Noor University (PNU), Department of Agricultural science. 145 Pp.
- **Evaluation of Crimson clover cv. Alborz1 quantity and quality forage in mix cropping to other clover cultivars. 2016.** Thesis of M.Sc. Islamic Azad University Karaj Branch Faculty of Agriculture Department of Agronomy.204Pp.
- **Tolerance to drought stress ecotypes of Iranian clover (*T.resupinatum*) in different levels of growth. 2016.** Thesis of M.Sc. Pajama Noor University (PNU), Department of Agricultural science. 123Pp.

Extensive- Research Bultten

- 1. Forage Sorghum Jumbo suitable cold region.** Publication: Agricultural extension organization, 2000.
- 2. Certification and control Principal of forage plant seed (alfalfa and clover).** Publication: Agricultural extension organization, 2002.
- 3. Crimson clover.** Publication: Agricultural extension organization
- 4. Agronomy of Berseem clover.** Publication: Agricultural extension organization, 2003
- 5. Seed production of Berseem clover.** Publication: Agricultural extension organization, 2003
- 6. Persian clover.** Publication: AEO, 2000

List of research project

- 1. Mass selection in population of seed Hamadani alfalfa.Code: 100-12-69425*
- 2. Assessment and comparison of yield of ten alfalfa cultivars on dryland region.*
Code: 100-12-71158
- 3. Assessment and define the best time of nonirrigation for seed production in Hamadani alfalfa.Code: 123-12-72521*
- 4. Assessment and comparison production and protein percentage new hybrids and varieties forage Sorghum.Code: 100-12-71438*
- 5. Assessment and define the best density and spaces rows for seed production Hamadani alfalfa.Code: 123-12-71629*
- 6. Assessment potential use water in alfalfa.Code: 123-15-73047*
- 7. Comparison forage yield of five alfalfa cultivars in salinity condition.Code: 107-15-77109*

- 8. Study of planting date and harvesting time succession effecting on seed yield of Berseem clover.**Code: 107-12-78355
- 9. Study of yielding ability and ecological adaptation of some exotic germplasms of clover cultivars.**Code: 107-12-78304
- 10. Evaluation and individual selection of persian clover populations (in Karaj).**Code: 107-12-78303
- 11. Evaluation and individual selection on Iranian clover population in Markazi province.**
Code: 121-12-78307
- 12. Identification, regeneration and evaluation of accessions of clover collection.**Code: 107-12-79205
- 13. Collection, indentificate and evaluation of Trifolium spp. Genetic resources for conservation and utilization.**Code: 100-12-79233
- 14. Evaluation and study agronomic, technical and economic of cultivation silage corn (SC 704) and harvest chaper in different desity and space row.**Code: 107-20-12-790061
- 15. Comparison of allelopathic potential of Berseem and persian clover in view of weed control.**Code: 107-11-82003
- 16. Survy of planting date and seed rate effecting on quantitative and qualitative forage yield of persian clover in traditional vs. ridge farming.**Code: 107-12-79384
- 17. Assessment and comparison forage tiel and cold tolerance of Berseem clover genotypes in cold region.**Code: 100-12-81171
- 18. Assessment and comparison of preliminary yield of selected lines of persian clover.**Code: 107-12-81143
- 19. Assessment and determination of adapation and production potential of Red clover cultivars in different envirmental conditions.**Code: 100-12-81170
- 20. Assessment and potential of adaptation and forage production potential of Crimson clover in climatology condition.**Code: 100-12-82139
- 21. Evaluation of smei-final yield lines of persian clover.**Code: 0-100-120000-02-0000-83118
- 22. Individual selection in persian clover populations in order to line product.**Code: 2-011-120000-02-0000-83090
- 23. Mass selection in ecotypes of Berseem clover.**Code: 0-100-120000-02-0000-83092
- 24. Effect of wheat residue management in wheat/corn vs. wheat/clover cropping systems on yield and quality of crops & soil fertillity and structure.**Code: 4-011-121800-00-8301-83032
- 25. Evaluation of regrowth , quantity and quality forage production of clover genotypes in relay cropping .**Code:2-03-03-89150
- 26. Forage yield evaluation of grouped Persian clover germplasms.**Code:2-03-03-87022
- 27. Quantity and quality evaluation of superior Persian clover lines. Code:**3-03-0313-87095

28. Final evaluation of forage yield Persian clover lines. Code:0-59- 03- 87089

29 . Mix cropping effects of one cut and multi cut Persian clover on forage production and resource uselity increase . Code:2-03-03-91146

30. Assessment and comparison of wild clovers for using in agronomic systems .Code:2-03-03-91146

31.Survey of chemical driers on losing decrease of quantity and quality seed production of Crimson clover .Code:2-03-03-9114

32. Evaluation of Crimson clover cv. Alborz1 quantity and quality forage in mix cropping to other clover cultivars. Code:2-03-03-93123

33. Study of summer planting effect on increase of anuually forage productivity potential clover cultivars.Code:2-03-03-93124

34.Affect assessment of harvesting time on Quantity and Quality forage yield of clover cultivars.Code:2-03-03-94132

35.Effect assessment of water deficiency on regrowth rate, quality and quantity forage yield of Berseem and Persian clover.Code:2-03-03-94144

36.Evaluation of clover species genetically resources of IPK received for planting in farming systems.Code:2-03-03-95

37.Technical and Economical Evaluation of Sorghum/Berseem Clover Intercropping.Code:2-03-03-95118

38. Reproduction and purity of primary nucleolus seed of current cultivars.Code:2-03-03-95

Inventions, discoveries and Innovation

1. **KPC/Eqlid-e-Fars/ 78-4**, a new line of Persian clover.
2. **Atar**, a new variety of Persian clover.
3. **Alborz1**, a new variety of Crimson clover.
4. **Nassim**, a new variety of Red clover.

Selective top researcher

1. Top researcher in Agricultural Research, Education and Extension Organization (AREEO) in 2005.
2. Top researcher in Tehran province in 2009.

Appreciations and awarded By

1. Deputy Minister and Head of Agricultural Research, Education and Extension Organization (AREEO) in 2015
2. Deputy Minister and Head of Agricultural Research, Education and Extension Organization in 2016 (AREEO)

3. Deputy Minister and Head of Agricultural Research, Education and Extension Organization in 2017 (AREEO)
4. Deputy Minister and Head of Agricultural Research, Education and Extension Organization in 2018 (AREEO)