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EDUCATION

Ph.D. 2001	**University of Massachusetts, Amherst**, Plant and Soil
Ph.D. 1988	**Higher Institute of Agriculture**, Plovdiv, Bulgaria, Agronomy
B.S. 1983	**Higher Institute of Agriculture**, Plovdiv, Bulgaria, Agronomy

PROFESSIONAL EXPERIENCE

Dec/2014 – present	-**Tenured Associate Professor,** Oregon State University
Dec 2010-Nov/2014	-**Tenured Associate Professor,** University of Wyoming
Oct/200505-Dec/10	-**Assistant &Associate Professor** at Mississippi State University
2000-2005	-**Research Professor and Chair in Cropping Systems**, Nova Scotia Agric. College, Truro, Dalhousie University, Halifax, NS, Canada
1988-2000	-**Assistant** (1988-95) and **Associate Professor** (1995-2000), Dep. Crop Sciences, Agricultural University Plovdiv, Bulgaria

PROFESSIONAL ACTIVITIES

- American Chemical Society, American Society of Agronomy, American Society for Horticultural Science, American Council for Medicinally Active Plants, Can. Soc. Agronomy, served as Eastern director
- Co-Editor of Herbs Spices & Med. Plants journal, Consulting editor for HortScience

HONORS & AWARDS

1996-1997: Fulbright Scholar, Department of Plant, Soil, and Insect Sci, Univ. of Massachusetts, Amherst, MA
1995: Individual competitive grant from the British Council. Visiting scientist (11 months), Harper-Adams University College, Newport, England.
1994: Individual competitive grant from Denmark. Visiting scientist (6 months), The Royal Veterinary & Agricultural University in Copenhagen, Denmark.
1992: Individual Competitive Mobility Grant from the European TEMPUS program. Visiting scientist (6 months) in Plant Sciences Laboratories, University of Reading, UK.

PUBLICATIONS (2014-2015)

1. **Zheljazkov**, V.D., A. Gawde, C.L. Cantrell, T. Astatkie, and V. Schlegel. 2015. Distillation time as tool for improved antimalarial activity and differential oil composition of cumin seed oil. PLoS ONE 10(12): e0144120. doi: 10.1371/journal.pone.0144120
2. Sintim, H.Y. V.D. **Zheljazkov***, A. Obour, A. Garcia y Garcia. 2015. Managing harvest time to control pod shattering in oilseed camelina. Agronomy J. doi: 10.2134/agronj2015.0300;
3. Sintim. H.Y., V.D. **Zheljazkov***, A.K. Obour, A. Garcia y Garcia, and T.K. Foulke. 2016. Evaluating agronomic responses of camelina to seeding date under rain-fed conditions. Agronomy Journal. 108:349-357.
4. Poudyal, S., V.D. **Zheljazkov***, C.L. Cantrell, T. Kelleners. 2015. Coal-bed methane water effects on dill and its essential oil. J. Environ. Qual. doi: 10.2134/jeq2015.05.0215; Date posted: November 10, 2015
5. Burkhardt, A., A. Gawde, C.L. Cantrell, H.L. Baxter, B.L. Joyce, C. Neal Stewart Jr., and V.D. **Zheljazkov***. 2015. Effects of produced water on soil characteristics, plant biomass, and secondary metabolites. Journal of Environmental Quality. 44:1938–1947. doi:10.2134/jeq2015.06.0299

1. Burkhardt, A., A. Gawde, C.L. Cantrell, V.D. **Zheljazkov***. 2015. Effect of varying ratios of produced water and municipal water on soil characteristics, plant biomass, and secondary metabolites of *Artemisia annua* and *Panicum virgatum*. Industrial Crops and Products. 76:987-994.

2. Sintim. H.Y., A.T. Adjesiwor, V.D. **Zheljazkov**, M.A. Islam, and A.K. Obour. 2016. Nitrogen application in sainfoin under rain-fed conditions in Wyoming: Productivity and cost implications. Agronomy Journal. 108:294–300. doi:10.2134/agronj2015.0317
3. Joyce, B.L., V.D. **Zheljazkov**, R. Sykes, C.L. Cantrell, C. Hamilton, D.G.J. Mann, M. Rodriguez, J.R. Mielenz, T. Astatkie, C.N. Stewart Jr. 2015. Ethanol and high-value terpene co-production from lignocellulosic biomass of *Cymbopogon flexuosus* and *C. martini*. PLOS ONE. 10 (10), e0139195. DOI: 10.1371/journal.pone.0139195
4. **Zheljazkov**, D., S. Shiwakoti, T. Astatkie, I. Salamon, D. Grul'ová, S. Mudroncekova, V. Schlegel. 2015. Yield, composition, and antioxidant capacity of ground cumin seed oil fractions obtained at different time points during the hydrodistillation. HortScience. 50(8):1213-1217.
5. Bufalo, J., C.L. Cantrell, T. Astatkie, V.D. **Zheljazkov**, A. Gawde, C.S.F. Boaro. 2015. Organic versus conventional fertilization effects on sweet basil (*Ocimum basilicum* L.) growth in a greenhouse system. Industrial Crops and Products 74:249-254
6. Burkhardt, A., H.Y. Sintim, A. Gawde, C.L. Cantrell, T. Astatkie, V.D. **Zheljazkov**, V. Schlegel. 2015. Method for attaining fennel (*Foeniculum vulgare* Mill.) seed oil fractions with different composition and antioxidant capacity. J. Applied Res. Med. Arom. Plants. 2(3):87–91. doi:10.1016/j.jarmap.2015.04.003
7. Obour, A.K., H.Y. Sintim, E. Obeng, and V.D. **Zheljazkov**. 2015. Oilseed camelina (*Camelina sativa* L. Grantz): Production systems, prospects and challenges in the USA Great Plains. Adv Plants Agric Res 2(2): 00043. DOI: 10.15406/apar.2015.02.00043
8. **Zheljazkov**, V.D., T Astatkie, I Zhalnov, T.D. Georgieva. 2015. Method for attaining rosemary essential oil with differential composition from dried or fresh material. Journal of Oleo Science. 64(5):485-496.
9. Sintim, H.Y., V.D. **Zheljazkov**, A.K. Obour, A.G. y Garcia, T.K. Foulke. 2015. Influence of nitrogen and sulfur application on camelina performance under dryland conditions. Ind. Crop Prod. 70:253-259.
10. Shiwakoti, S., H.Y. Sintim, S. Poudyal, J. Bufalo, C.L. Cantrell, T. Astatkie, E. Jeliazkova, L. Ciampa, V.D. **Zheljazkov**. 2015. Diurnal effects on *Mentha canadensis* oil concentration and composition at two different harvests. HortScience 50 (1): 85-89.
11. Bufalo, J., V.D. **Zheljazkov**, C.L. Cantreell, T. Astatkie, L. Ciampa, and E.A. Jeliazkova. 2015. Diurnal effects on spearmint oil yields and composition. Scientia Horticulturae. 182:73-76.
12. Sintim, H.Y., A. Burkhardt, A. Gawde, C.L. Cantrell, T. Astatkie, A.E. Obour, V.D. **Zheljazkov**, V. Schlegel. 2015. Hydrodistillation time affects dill seed essential oil yield, composition, and bioactivity. Industrial Crops and Products. 63:190-196. doi:10.1016/j.indcrop.2014.09.058
13. Cantrell, C.L., **Zheljazkov**, V.D., Carvalho, C.R., Astatkie, T., Jeliazkova, E.A., Rosa, L.H. 2014. Dual extraction of essential oil and podophyllotoxin from creeping juniper (*Juniperus horizontalis*). PLoS ONE 9(9): e106057. doi:10.1371/journal.pone.0106057
14. Moser, B.R., V.D. **Zheljazkov**, E.L. Bakota, R.L. Evangelista, A. Gawde, C.L. Cantrell, J.K. Winkler-Moser, A.N. Hristov, T. Astatkie, E. Jeliazkova. 2014. Method for obtaining three products with different properties from fennel (*Foeniculum vulgare*) seed. Industrial Crops and Products. 60:335–342.
15. **Zheljazkov**, V.D., T. Astatkie, and V. Schlegel. 2014. Hydrodistillation extraction time effect on essential oil yield, composition, and bioactivity of coriander oil. Journal of Oleo Science. 60, 335-342.
16. **Zheljazkov**, V.D., T. Astatkie, S. Shiwakoti, S. Poudyal, T. Horgan, N. Kovatcheva, and A. Dobreva. 2014. Essential oil yield and composition of garden sage as a function of different steam distillation times. HortScience. 49:785-790.
17. Gawde, A., C.L. Cantrell, **V.D. Zheljazkov,** T. Astatkie, and V. Schlegel. 2014. Steam distillation extraction kinetics regression models to predictessential oil yield, composition, and bioactivity of chamomile oil. Industrial Crops and Products 58:61–67. http://dx.doi.org/10.1016/j.indcrop.2014.04.001
18. **Zheljazkov,** V.D., T. Astatkie, and E.A. Jeliazkova. 2014. Drying and shade effects on spearmint oil yields and composition. HortScience. 49(3):306–310.
19. **Zheljazkov** VD, Vick B, Ebelhar W, Buehring N, Astatkie T.. 2013. Effect of N on yield and chemical profile of winter canola in Mississippi. Journal of Oleo Science. 62(7):453-8.
20. **Zheljazkov**, V.D., C.L. Cantrell, T. Astatkie, V. Schlegel, E. Jeliazkova and D. Lowe. 2013. Effect of coal-bed methane water on spearmint and peppermint. J. Environ. Qual. 42(6):1815-1821. doi:10.2134/jeq2013.05.0211.
21. **Zheljazkov,** V.D., T. Astatkie, Barry O'Brocki, and E. Jeliazkova. 2013. Essential oil composition and yield of anise from different distillation times. HortScience 48(11):1393-1396.
22. **Zheljazkov**, V.D., C.L. Cantrell, T. Astatkie, and E. Jeliazkova. 2013. *Mentha canadensis* L., a subtropical plant, can withstand first few fall frosts when grown in northern climate. Industrial Crops and Products. 49:521-525.

23. **Zheljazkov**, V.D., T. Astatkie, T. Horgan, V. Schlegel, and X. Simonnet. 2013. Distillation time effect on essential oil yield, composition, and antioxidant capacity of sweet sagewort (*Artemisia annua* L.) Oil. HortScience 48(10):1288-1292.
24. **Zheljazkov**, V.D., T. Horgan, T. Astatkie, and V. Schlegel. 2013. Distillation time modifies essential oil yield, composition, and antioxidant capacity of fennel (*Foeniculum vulgare* Mill). Journal of Oleo Science. 62(9):665-672.
25. **Zheljazkov**, V.D., T. Astatkie, and E. Jeliazkova. 2013. Year-round variations in essential oil content and composition of male and female juniper. HortScience. 48(7):883–886.
26. **Zheljazkov**, V.D., T. Astatkie, and E. Jeliazkova. 2013. Effect of foliar application of methyl jasmonate and extracts of juniper and sagebrush on essential oil yield and composition of 'Native' spearmint. HortScience. 48(4): 462-465.
27. **Zheljazkov**, V.D., T. Astatkie, E. Jeliazkova, A.O. Tatman, and V. Schlegel. 2013. Distillation time alters essential oil yield, composition and antioxidant activity of female *Juniperus scopulorum* trees. Journal of Essential Oil Research. 25(1): 62-69.
28. **Zheljazkov**, V.D., C.L. Cantrell, T. Astatkie, E. Jeliazkova. 2013. Distillation time effect on lavender essential oil yield and composition. Journal of Oleo Science. 4:159-199.
29. **Zheljazkov**, V.D., C.L. Cantrell, M.A. Donega, T. Astatkie, and B. Heidel. 2012. Podophyllotoxin concentration in junipers in the big horn mountains in Wyoming. HortScience 47(12):1696-1697.
30. **Zheljazkov**, V.D., C.L. Cantrell, T. Astatkie, and E. Jeliazkova. 2012. Fall frosts effects on the essential oil of "Native" spearmint in Wyoming. HortScience 47(11):1603-1606.
31. **Zheljazkov**, V.D., B.A. Vick, B.S. Baldwin, N. Buehring, T. Astatkie, and B. Johnson. 2012. Effect of plant date, introgen rate, and hybrid on sunflower. Journal of Plant Nutrition. 35(14):2198-2210.
32. **Zheljazkov**, V.D., T. Astatkie, E.A. Jeliazkova, and V. Schlegel. 2012. Distillation time alters essential oil yield, composition, and antioxidant activity of male *Juniperus scopulorum* trees. Journal of Oleo Science. 61(10):537-546.
33. **Zheljazkov**, V.D., C.L. Cantrell, M.A. Donega, and T. Astatkie. 2013. Bioprospecting for podophyllotoxin in the Big Horn Mountains, Wyoming. Industrial Crops and Products 43:787-790.
34. Munroe, M., V. **Zheljazkov**, T. Astatkie, and G. Stratton. 2012. Comparison of lead extraction and detection procedures for six Canadian soils. Communications in Soil Science and Plant Analysis. 43(17):2303-2313.
35. Cantrell, C.L., V.D. **Zheljazkov**, W.A. Osbrink, A. Castro, V. Maddox, L.E. Craker, T. Astatkie. 2013. Podophyllotoxin and essential oil profile of Juniperus and related species. Industrial Crops and Products. 43:668-676.
36. Tekippe, J.A., A.N. Hristov, K.S. Heyler, V.D. **Zheljazkov**, J.F.S. Ferreira, C.L. Cantrell, G.A. Varga. 2012. Effects of plants and essential oils on ruminal in vitro batch culture methane production and fermentation. Canadian Journal of Animal Science 92(3):395-408.
37. **Zheljazkov**, V.D., T. Astatkie, and V. Schlegel. 2012. Distillation time changes oregano essential oil yields and composition but not the antioxidant or antimicrobial activities. HortScience 47(6):777-784.
38. **Zheljazkov**, V.D., T. Astatkie, and V. Schlegel. 2012. Effects of distillation time on the *Pinus ponderosa* essential oil Yield, composition, and antioxidant activity. HortScience 47(6):785-789.
39. Ferreira, J.F.S., V.D. **Zheljazkov**, and J.M. Gonzales. 2013. Artemisinin concentration and antioxidant capacity of *Artemisia annua* distillation byproduct. Industrial Crops and Products. 41:294-298.
40. Cannon, J.B., C.L. Cantrella, T. Astatkie, and V.D. **Zheljazkov**. 2013. Modification of yield and composition of essential oils by distillation time. Industrial Crops and Products. 41:214-220.
41. **Zheljazkov**, V.D., and T. Astatkie. 2012. Effect of distillation time on *Mentha canadensis* essential oil yield and composition. HortScience. 47(5):643-647.
42. **Zheljazkov**, V.D. and T. Astatkie. 2012. Distillation waste water can modify peppermint (*Mentha ×piperita* L.) oil composition. Industrial Crops and Products. 36:420– 426.
43. **Zheljazkov**, V.D., B. Vick, M.W. Ebelhar, N. Buehring, and T. Astatkie. 2012. Nitrogen applications modify seed and oil yields and fatty acid composition of winter mustard. Industrial Crops and Products. 36:28-32.
44. **Zheljazkov**, V.D., T. Astatkie, A.N. Hristov. 2012. Lavender and hyssop productivity, oil content, and bioactivity as a function of harvest time and drying. Industrial Crops and Products. 36(1):222-228.

Relevant selected publications

Bufalo, J., C.L. Cantrell, T. Astatkie, V.D. Zheljazkov, A. Gawde, C.S.F. Boaro. 2015. Organic versus conventional fertilization effects on sweet basil (*Ocimum basilicum* L.) growth in a greenhouse system. Industrial Crops and Products 74:249-254.

Zheljazkov, V.D. 2005. Assessment of wool-waste and hair-waste as soil amendment and nutrient source. Journal of Environmental Quality. 34:2310-2317.

Zheljazkov, V.D., J.L. Silva, M. Patel, J. Stojanovic, Y. Lu, T. Kim, and T. Horgan. 2008. Human Hair as Nutrient Source for Horticultural Crops. HortTechnology. 18(4):592-596.

Zheljazkov, V.D., G.W. Stratton, and T. Sturz. 2008. Uncomposted wool and hair-wastes as soil amendments for high-value crops. Agronomy Journal. 100:1605–1614.

Zheljazkov, V.D., G.W. Stratton, J. Pincock, S. Butler, E.A. Jeliazkova, N.K. Nedkov, and P.D. Gerard. 2009. Wool waste as organic source for container grown plants. Waste Management. 29:2160-2164.