

Justus Liebig- Universität Giessen

Syllabus

Course: Climate and Value Products

Date: Friday 13/09/2019

Lecturer: Prof. Konstadinos Mattas

Contact info: Aristotle University of Thessaloniki, P.O. Box 225, 541 24, Thessaloniki, Greece
Telephone: + 30 - 231 – 0998807; e-mail: mattas@auth.gr
Site: www.eng.auth.gr/mattas/

Aim of the course

Climate is the primary determinant of agricultural production. Concern over the potential impacts of climatic change on agriculture has motivated an essential range of research. This course aims to make students get familiar with the possible physical impacts of climatic change on agriculture, that can reverse or destroy food products for particular territories. Furthermore, it aims to provide an overview of the connection between agriculture and climate while paying some specific attention to the impact of climate in local, PDO and PGI products, describing particular cases.

Course outline

The course first underlines the significance of the agri-food sector, its characteristics and his multifunctional role. Then, is described the important role of climate and how climate change can be a determinant factor that affects agricultural production, following by stating how agriculture needs to be adapted to that changes by adopting the “smart-agriculture”. Also, the lecture emphasizes at the meaning of food waste, food loss and bioeconomy, but simultaneously emphasizes at the positive effects of climatic elements predominating in a region, that can give an extra motivation for the production of products such as local, PDO and PGI giving a value added on them. Finally, the lecture ends with familiarization of students with PDO cases as a way to add value to products and regions too and gives consumer's perspective in the subject.

Course material - and content delivered

a) Indicated literature

Albayram, Z., Mattas, K. and Tsakiridou, E., 2014. “Purchasing local and non-local products labeled with geographical indications (GIs)”, *Operational Research* 14(2), pp237-251.

Bindi, M. and Olesen, J., E., 2011, “The responses of agriculture in Europe to climate change”, *Regional Environmental Change*, Vol. 11 (1).

Bryant, C.R., Sarr A. S. and Delusca, K., 2016 “Agricultural Adaptation to Climate Change”, Book, Springer International Publishing Switzerland, 2016.

Campbell B. and Thornton P. (2014), “How many farmers in 2030 and how many will adopt climate resilient innovations?” CCAFS Info Note. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Copenhagen.

Georgopoulou, E., Mirasgedis, S., Sarafidis, Y., Vitaliotou, M., Lalas, D.P., Theloudis, I., Giannoulaki, K.D., Dimopoulos, D. and Zavras, V., 2017, “Climate change impacts and adaptation options for the Greek agriculture in 2021–2050: A monetary assessment”, Climate Risk Management Vol. 16.

Hilal, M., Leedon, G., de Labarre, M., Antonioli, F., Boehm, M., Péter, C., Donati, M., Drut, M., Ferrer- López, H., Gaurvit, L., Gil, M.J., Mattas, K., Gołaś, M., Hoang, V., Steinnes, K.K., Lilavanichakul, A., Malak-Rawlikowska, A., Gkatsikos, A., Napasintuwong, O., Nguyen, A., Ristic, B., Schaer, B., Tomić, M., Brečić, R., Török, Á., Veneziani, M., Vittersø, G. 2019. “Cross-country analysis of the educational and employment effects of organic and Geographical Indication certifications”, Sustainability of European Food Quality Schemes – PDO, PGI and Organic, Springer, (forthcoming).

Lizumi, T. and Rsmankutty, N., 2015, “How do weather and climate influence cropping area and intensity?”, Global Food Security Vol 4.

Mattas, K., Baourakis, G., Tsakiridou, E., Hedoui, A.M. and Hosni, H., 2019. “PDO olive oils product: a powerful tool for farmers and rural areas”, Journal of International Food & Agribusiness Marketing (forthcoming).

Mattas, K. and Loizou, E., 2017. “The CAP as a Job Stabilizer”. EuroChoices, Vol. 16(3), pp. 23-26.

Mattas, K. and Tsakiridou, E., 2010. “Shedding fresh light on food industry’s role: the recession’s aftermath”. Trends in Food Science & Technology, 21, pp. 212-216.

Porfirio, L., L., Newth D., Finnigan J., J. and Cail, Y., (2018), “Economic shifts in agricultural production and trade due to climate change”, Palgrave communications, Humanities, Social Sciences, Business, Vol 4. (111), DOI: 10.1057/s41599-018-0164-y

Wheeler T, von Braun J (2013) ‘Climate change impacts on global food security. Science 341(6145):508–13. <https://doi.org/10.1126/science.1239402>

b) Indicative websites

European Commission: https://ec.europa.eu/commission/index_en

European Environment Agency: <https://www.eea.europa.eu/>

Food and Agriculture Organization of the United Nations (FAO): <http://www.fao.org/home/en/>

United Nations Climate Change: <https://unfccc.int/>

c) Power point presentation and class discussions