Bordeaux 2016 Abstract Submission

Title
Cost effects of environmental legislation for wine grape production in European and non-European countries

I want to submit an abstract for:
Conference Presentation

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Keywords
competitiveness, wine grape production, environmental legislation, EU legislation

Research Question
Farm level cost of compliance with environmental legislation in EU and non-EU countries for the case of wine grapes are compared.

Methods
Based on typical farms, total costs of production are estimated and compared for scenarios with and without selected legislation. In focus groups with farmers, the without legislation scenario was specified.

Results
The overall cost effect of complying with environmental legislation varied between 0.2 to 4 % of total costs. Costs of compliance in EU countries were slightly higher than in non-EU-countries.

Abstract
Concerns about the environmental effects of intensive agricultural and horticultural production have led to increasing restrictions for producers. In many countries worldwide, legal requirements were defined concerning different aspects of production aiming to protect natural resources from overuse and contamination. In most countries, the use of inputs such as pesticides and fertilizers is subject to regulation. Other regulations refer to the use of irrigation water or the protection of specific landscape elements such as surface water bodies or hedgerows. In the European Union, agricultural activities and their environmental impact are regulated by a
Compliance with environmental regulations may add to production costs at farm level, EU-wide implementation should ensure fair competition between farmers in the member states. However, if environmental legislation in non-EU countries was less restrictive, EU farmers might lose competitiveness. Therefore, in this paper, farm level costs of compliance with environmental legislation in EU and non-EU countries for the case of wine grapes are compared. The results presented here are part of a larger study, commissioned by the European Commission DG Agri, where other crops such as wheat, apples and different animal production systems were analysed as well. Also, the costs of food safety legislation were assessed at the farm level. However, in case of wine grapes, this legislation was not found to have a cost effect at farm level, therefore, the paper focuses on the environmental regulations.

In a first step, the most relevant EU legislation and resulting constraints in crop management were identified and compared with corresponding regulation in major competing non-EU countries. In some cases, producers in non-EU countries might have to comply with the same or very similar environmental standards, if these are a condition for market access in the EU. In a second step, costs of compliance for selected regulations were estimated using the typical farm approach. Typical farms, models representing the prevailing farm size and production system for a specific region and year, are used to calculate production costs. As reference year, 2010 was chosen. Only those regulations and corresponding non-EU laws were analysed, which were in place in 2010. Production costs for the typical farms in the reference year, defined as the base scenario, hence include the compliance with all legislation. In order to quantify compliance costs, the question was whether such costs would be saved if the legislation were not implemented. In focus group discussions, farmers and farm advisors identified how their production systems and processes would be, if they were not obliged to meet certain environmental standards. As a result of the group discussions, a scenario “without legislation” was defined for the respective typical farm and the production costs calculated. The difference of costs between the base scenario and the without legislation scenario represents the costs of compliance for the specific typical farm.

Six countries were included in the analysis. Seven typical farms in different producing regions of four EU member states, Bulgaria, France, Italy and Spain, were established. Additionally, two producing regions and typical farms in each, South Africa and Australia were selected for the comparison. Since wine grape production systems can vary hugely even within defined producing regions, the assessment was conducted with a focus on wine grape production for still quality bulk wine. The costs of compliance were assessed for legislation with direct implications for crop management, including the nitrate directive, the regulation on plant protection products and the directive on sustainable use of pesticides. These regulations require farmers to establish infrastructure for safe storage of fertilizers and pesticides, document the use of plant protection products, define standards for application technique and limit the choice of pesticides. Also, the compliance with GAECs was assessed: establishment of buffer stripes along water courses, avoiding encroachment of unwanted vegetation, retention of landscape features, and the minimum land management. In the non-European countries, similar legislation exists and costs were assessed accordingly. For Australia, an additional constraint was identified with respect to irrigation water. The reference year was characterized by exceptional drought conditions and use of irrigation water was extremely limited, leading to extra costs for purchasing additional water rights.

Results show that the overall cost effect of complying with environmental legislation was rather small, ranging between 0.2 to 4% of total costs. Major cost items were specific pesticide storage rooms, expensive features of pesticide sprayers or washing areas for application equipment. Also, farmers perceived special requirements for record keeping as extra work and thus as a cost. However, most of the requirements are regarded as useful and would be implemented even without obligation. Also, a number of requirements are also part of certification schemes and hence farmers' compliance is part of their marketing strategy. Therefore, costs involved cannot be considered as costs of environmental legislation. Overall, wine grape farmers in EU countries face higher costs of compliance than Australian or South African growers. While for the EU countries the cost increase ranges between about 2 to 4% of total costs, in the non-EU countries this difference is below one percent. There are two exceptions: Bulgaria, the cost effect was very low with only 0.13 percent, and the Australian Riverland region, where the costs of the regulations due to the drought accounted for 41% of total costs. Given the importance of private standards and certification schemes, with often stricter restrictions in crop management, the costs of compliance with environmental legislation are probably only a very small factor in the overall competitiveness.
affecting wine grape growers in EU member states, as compared to non-EU countries.