

Self evaluation for fruit growers: a cooperation project among growers, extension and research

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Abstract

Within the Interreg Project “Management of fruit-growing” (original German title “Betriebsmanagement im Obstbau”) we developed an instrument for the self evaluation on the social and economic situation for organic and IP fruit growers. Two studies about controlling instruments for fruit growers published by Görgens (2003) and Mouron und Carint (2001¹) served as a foundation for the self evaluation instrument. Sessions and interviews with chosen organic and IP growers, consultants and other experts from the region of Lake Constance (from both sides of the Swiss and German border) provided necessary information to further develop the already existing and used tools. Criteria for the new developed instrument were defined by experts: the new self evaluation instrument should be useful and user-friendly and help organic and IP growers on plot, farm and family level to address managerial issues. The self evaluation instrument allows fruit organic and IP growers to compare their own situation with benchmarks (quantitative part) and to evaluate the individual perspective of their situation (qualitative part). The self evaluation tool intends to provide benchmark based guidance to fruit growers that address important decisions – which otherwise they would decide based only on gut instincts. With the instrument fruit organic and IP fruit growers can make important decisions for the future of their orchard, farm and family based on validated industry benchmarks. The instrument is called ArboPlus and is available online.

Keywords: Self evaluation instrument, fruit grower, management, social and economic situation.

Introduction

The economic pressure on fruit growers increased over the last years. Within countries of the European Union production increased and consequently the price decreased (Schwartau, 2010). From 2007 the organic apple production area in Western Europe increased. 200 ha in Italy (ZMP, 2008), 200 ha in Austria (Wilhelm, 2008), 200 ha in Germany (ZMP, 2008) and 90 ha in France (Agence Bio, 2009). The offer of organic apples increased and the pressure on organic prices rises. In Switzerland, prices for IP and organic production were stable (AGRIDEA, 2007-2010). But with a possible liberalisation of the fruit market, due to the trade agreements for agriculture between Switzerland and the European Union, Swiss growers could experience more price-pressure (Büchele, 2007). The price paid to growers is a key factor that influences the family income above-average. The consequence of a price decrease is an income decrease (Mouron und Carint, 2001²). With lower prices for organic and IP apples farm income will also drop.

To change the difficult situation, fruit growers can follow different strategies: enlarge the production-area, switch to organic farming, specialize, and increase productivity and so on. Management skills are essential for strategic change. Higher productivity needs an individual analysis of deficits in the production (Büchele, 2007).

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The objective of the Interreg Project “Management of fruit-growing” is to improve the managerial competence of fruit growers in the region of Lake Constance. Thus the project encompasses an exchange of information about management.

Strategic change is a very important decision. This decision can only be taken with useful information about the situation on the orchard, farm and family. To analyze the situation we developed the self evaluation instrument ArboPlus for organic and IP fruit growers.

Method

Self evaluation instrument

Görgens (2003) describes a control system for fruit growers with different levels on the plot- and fruit production level with the evaluation of:

- numbers of the cultivars
- pest management / fertilizer
- thinning recommendation
- evaluation of the yield
- information to storage
- turnover (month/cultivar/plot)
- output of the plot/cultivar
- price of the cultivar
- harvest, grading and stock costs
- key indicator data about the farm

Mouron und Carint (2001¹) developed a full cost calculation model for the economic evaluation of the plot for fruit growers and consultants. The instrument is called ArboKost and exist for organic and IP fruit growers. With this interactive tool growers can calculate the cash flow, the labor income, the gross margin and data about productivity, time and cost distribution.

To improve the situation of the organic and IP fruit growers in Switzerland and Germany in the region of Lake Constance we developed a user-friendly self evaluation instrument: a synthesis from Görgens (2003) and Mouron's (2001¹) work. The objective was to identify the key factors and to integrate them in a single tool.

In the quantitative part of the instrument organic and IP fruit growers can interactively evaluate their situation – on a traffic-light signalization system for each key factor: red – yellow – green (quantitative section on plot level).

In the qualitative section growers can evaluate possibilities for cooperation, performance of employees or division of work. The evaluation of the qualitative section is about contentment with the individual situation. This part of the evaluation is more suitable for the farm and family level.

ArboPlus is programmed on Excel 2007 (Visual Basic).

Experts

To choose the information in the check up instrument we used expert's know-how. The criteria to choose the experts were their experience and contact with fruit growers. We asked six fruit production consultant for the organic and IP production, two farm management consultant, and two accounting analyst to participate in five evaluation sessions for the construction and evaluation of the tool. These experts were asked in sessions and/or interviews to evaluate different versions of the instrument – levels (plot, farm and family) and issues. Within explorative interviews expert have been asked if tools

with the same objectives already existed and if important issues were neglected. The feedback of experts has been integrated in the self evaluation instrument for the next expert round. For the second evaluation, we hold two different types of experts' rounds. In one type of expert round the main objective was to test if the instrument was really user-friendly and if the information asked were easy to find for the growers. The other type of expert round was more based on the integration of expert inputs and important practical information to improve the quality of the self evaluation instrument.

To guarantee a user-friendly system and useful information the self evaluation instrument ArboPlus has been checked on a third evaluation level. 25 organic and IP fruit growers in Switzerland and Germany tested the instrument. Participating growers were selected by consultants from each region.

Results

We defined three levels of the self evaluation instrument (called ArboPlus) using information collected from literature research (Görgens 2003, Mouron und Carint, 2001¹) and with expert interviews and sessions:

- ArboPlus plot
- ArboPlus farm
- ArboPlus family

Additionally we developed the following tools that could assist fruit growers in managerial decision taking:

- planning of harvest employees
- decision tool for clearing the plot
- decision tool to choose a cultivar

ArboPlus plot

Plot level users (growers) can evaluate their apple plot using the self evaluation instrument. We chose the evaluation for apple growing because in Switzerland the apple orchard surface is 66% of the fruit surface (BLW, 2010). With the instrument users (growers) can evaluate the key factors of their orchard (apple) for different cultivars (Gala, Golden Delicious, Jonagold, Braeburn, Idared, other new cultivars, other traditional cultivars). The key factors of the apple production are the price (of the best class), the quality (grading results) and the yield (Mouron und Carint, 2001²). In the instrument more important factors (interview with experts) have been included: yield/harvest time, labour hours, productivity and revenues.

To set the traffic-light system on plot level up we defined the corresponding trigger points by using the average of on-farm results of a network of twenty professional IP and organic Swiss farmers (year 2004-2009) participating in the project Support Obst Arbo (SOA, 2011). As such a database does not exist for growers in the German part of the Lake Constance region the Swiss data for IP apples was adjusted by experts (consulters and growers of the region). With a sensibility analysis using a full cost model account we evaluated the colors of the traffic-light system by measuring the consequence on farm income.

- consequence on farm income $\leq -10\%$ → green
- consequence on farm income $\geq -10\%$, $\leq -20\%$ → orange
- consequence on farm income $\geq -20\%$ → red

ArboPlus farm

With the self evaluation instrument factors for accounting (gross margin, cash flow ...) can be evaluated. Growers will have to collect the data themselves and then introduce it into the instrument. The results are also on this level defined by the traffic-light system. The value for green, yellow and red is determined by standards rates of accounting.

With ArboPlus farm it's also possible to evaluate the performance of employees, cooperation with other farmers, or possible cooperation, suppliers and distance to plots.

ArboPlus family

With the check-up instrument on family level apple growers can evaluate their situation in the family. In interviews with experts they often point out, the importance of such an instrument also on the family level. The family is very important for the success of the farm. The instrument addresses the following issues: living together of generations, division of work, family time together, competence & education and evaluation of external employment. The evaluation is based on the individual contentment of the family members. In addition, the instrument point to potential conflicts or future problems.

Objectives and strategies with ArboPlus

With the fulfilling of the self evaluation instrument fruit growers can consider their objectives and strategies to achieve their objectives. In the summary of the instrument the results of ArboPlus plot, ArboPlus farm and ArboPlus level are showed. This general view helps growers to watch forward out of the situation and set realistic objectives for the plot, farm and family. The most important results of the self evaluation instrument are then thematic arranged:

- Work-Life-Balance
- Finance
- Sale
- Work

For those important issues is than possible for the grower to choose their objectives and to find the strategies for their own objectives. After a year growers should control their objectives. If the objectives are not achieved, they should find new strategies or change the objectives. The analysis will so be fulfilled: choose the objective, find the strategy, and control the objectives.

Discussion

It is very important for organic and IP growers to be able to analyze their situation. With better awareness they are in a better position to take the right decision. With this self evaluation instrument ArboPlus growers can analyse their situation, set objectives and control them. The can also find information on important issues such as check lists that help them to improve the farm situation. By involving organic and IP growers and consultants from the IP and organic fruit production, trust consulting, home economy we tried to interest growers in less common fields for real economic controlling instruments. The success of such instruments is only guaranteed if organic and IP growers really use it. The results will be even more promising if the self evaluation instrument is used on a regular basis. The implementation of the instrument in the Lake Constance region on Swiss and German side remains one of the most important tasks of the project.

The work in this research does not finish with the completion of the ArboPlus. The knowledge-transfer to growers is crucial. The percentage of use will increase with the implementation of the instrument in the education of fruit growers and in seminars for growers.

References

- Agence Bio, 2009: L'agriculture biologique française: les chiffres clés 2009, Paris.
- AGRIDEA, 2007-2010: Preiskatalog, Lindau - Switzerland.
- Bundesamt für Landwirtschaft (BLW), 2010: Flächenstatistik 2010, www.blw.admin.ch
- Büchele M., 2007. Spannende Ergebnisse beim Interreg IIIa-Projekt Bogo. Obst 5, 14-17.
- Görgens M., 2003: Erfolgsfaktoren in der Produktion als Grundlage für die Entwicklung einer Controlling-Konzeption für Obstbaubetriebe, – Gärtnerische Fakultät der Humboldt–Universität zu Berlin. Berlin.
- Mouron P. und Carint D., 2001¹: Arbokost - www.arbokost.info-acw.ch, Wädenswil. Schweiz.
- Mouron P. und Carint D., 2001². Rendite-Risiko-Profil von Tafelobstanlagen. Teil I: Renditepotential. Obst- und Weinbau 137 (5), 106-110.
- Wilhelm, R. (2008). Bio-Äpfel: 105 heimische Obstbauern heben das bisher größte Bio-Projekt aus der Taufe. Pressemitteilung Landwirtschaftskammer Steiermark. Graz.
- Schwartau H., 2010: Zu viele Äpfel, Preisdruck hält an, Besseres Obst 1/2010, Wien.
- ZMP Zentrale Markt- und Preisberichtsstelle (2008), Bio Obst, pp. 27, Bonn.
- Support Obst Arbo (SOA), 2011: SOA: Betriebswirtschaft im Obstbau, URL: <http://www.asaagrar.ch/>.