



EIP-AGRI Focus Group

Robust & Resilient Dairy Production Systems

Mini-paper - Skills for the future robust and resilient dairy farming - curriculum for farmers and farm advisor

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1. Introduction

This summarizes the need for skills, attitude and support for the future European dairy farmer and farm advisors related to robust and resilient farming towards more sustainable dairy farming systems. The important part of advising are also dairy veterinarians. Farmer already has and will have to cope with volatile prices, climate change, societal and regulatory demands, and animal health challenges. This will be emphasized even more in the future. A dairy farmer will need to be a multi-disciplinary expert, but do not have to be left alone.

We have noted that the implementation of the good practices is sometimes insufficient at farm level. In fact, most of the farmers need more or less support to help 'translate' the actual knowledge to their own farm situation into practice.

Specific independent dairy farm advise exists rarely, sometimes fragmentary, and not well available along EU. The farmers that are in the need of support, do not necessary have the possibility to use advisory services, if any available. The availability and quality of dairy advisors differs greatly between the member states in EU.

In this mini-paper we suggest the measures to be taken how to organize education, advisory services and other support to ensure the future dairy farmer's curriculum development and to support robust and resilient dairy implementation, generate environment to think more broadly, and help he/she to survive in the dairy market field

2. Organizing curriculum for farmers and farm advisors - personal, dynamic and in time.

Different stakeholders have important roles in the process.

School provides a base layer. It should be responsible for dynamic and adaptive programs and specific courses for students to generate the motivation and interest for dairy farming in robust and resilient way. Interest for farming should be supported by school. Students should be introduced to the robust and resilient practical dairy farming by farm visits and excursions.

Universities are the forum for future scenarios. Research institutes and universities for applied sciences provide research results that can be fairly easily taken into practice. Farmers, researchers and advisers should be brought together. Knowledge development and new innovations in sector regarding robust and resilient farming should be drained more quickly from academic level to the practice. Specific needs for robust and resilient dairy cattle breeding and production system research should be analysed by universities. The graduate schools should be established for robust and resilient dairy farming research and earmarked funding addressed for subject.

Farmers individually or in smaller groups, but also in national/regional union level, should express the needs of farmers towards robust and resilient dairy system. Group learning, peer groups and peer support are the key points when planning and providing learning courses towards robust and resilient dairy farming. Operational groups are best platforms in developing the measures.

Advisory service is part of the learning system as a feeding the curriculum but also as a target group. Cattle veterinarians are essential part of advisory service and they should be included already from first step. Dynamic, adaptive and adjustable learning is the aim. The advisory service has to be addressed to deepening current skills and supporting out-of-the-box-thinking. Advisors' role as a coach will be emphasized.

Government, at local, national and Union level, are the facilitators of providing funding and ensure the quality of education. If possible, the incentive for learning could be given by authorities by introducing certification or specific "licence". This could be linked to basic payments or rural development program as a measure towards robust and resilient dairy farming.

Industry and financial institutions have important role of developing the curriculum by providing courses, implementing quality schemes and funding. This is part of their business and it support the future scenario.

The aim should be the added value or premium from the product to the farmer.

NGOs, consumers and rural society should have their input for farmers' curriculum. The public debate is essential part of development.

3. What are the success factors?

To achieve the best results of introducing the new skills and attitudes to the dairy farmers is to be open, scientific and objective in education. Evidence-based methods and analytical approach are the key elements. Different options should be on the table, but with argumentation for and against. There is not right or wrong system, but robust and resilient dairy production system means the right type of cow for the right type of farming system. Future dairy farmer should be adaptive towards coming global stressor like climate change and urbanization.

Time is generally the limited resource. Time table should be kept adaptive. New methods and possibilities can be taken in practice like e-learning and large possibilities of smartphones. Smartphones are widely used by modern farmers and often conveniently close and achievable.

New technology and applications at the farm yield more data. The key to success is to learn to analyze data and transform the findings in to practice. Advisory service has to offer tools to use data for strategic planning and decision-making.

Group and peer learning in smaller groups is a good way of learning for farmers but also for advisors. Benchmarking one's own way of doing to other colleagues' way, widens often perspective and fining of better or new approaches

International excursions, visits and peer groups give other perspective as well as, and the cost of international visits can be nowadays reasonably low.

Apprenticeship and training programs for advisors and farmers, but also dairy veterinarians and agriculture students, are important information and learning channels. Role of operational groups is important and essential.

4. What are the fail factors?

Concerning the skills of farmers and advisors It was found that there are several points where more effort should be put on. The big question is how to reach the farmers? It was estimated that only 20% participate courses and education campaigns. Challenging are the unreached 80%. The special incentive system could be an answer, but incentives are problematic to define. Learning could be linked to basic payments or be part of the rural development programs. It is essential that rural development program measures will include in future CAP.

How to organize the binding farm work done 24/7 in dairy farms and still find some time for education? This is found very challenging in many farms and the solutions depend on several issues and personal situation. Paper work and writing is not typically the strongest skill of dairy farmers, other approaches are preferable. Language barrier still exists in many rural areas. Time will preferably

help in this problem when younger farmers and advisors replace the older, but international connections are difficult to maintain without common language. Also in rural areas, the problem could be an attitude, certain fear for the unknown. It could be easier to stay in old methods and consider the new ones too laborious or even dangerous for own way of doing.

Rewarding and encouraging system has been lacking as now. These possibilities should be profoundly analyzed.

5. Conclusions

To address these factors it was concluded that the agricultural education system has the biggest and most important role when implementing robust and resilient dairy farming systems. In EU-countries the national systems differ from each other, but their content and structure need to examine and reforms made if needed. Modern curriculum should be analyzed and find out the good examples for farmers', advisors' and veterinarians' curriculum. Also, national and regional level government should be pushed by farming lobby to implement appropriate curriculum and education.

Dairy farmers, advisors and vets should have an open mind and willingness to deepen their knowledge and seek for further education, which is necessary to stimulate and support dairy farming towards more robust and resilient production systems.