



Initial Stakeholder Meeting Report Agroforestry for Arable Farmers in Northern France

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Contents

1. Context.....	2
2. Description of system and current agroforestry development	2
3. Meeting emerging needs	5
4. Perceptions of agroforestry	6
5. Potential research themes and proposals	9
6. Stakeholder involvement.....	9
7. Acknowledgements.....	10



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1. Context

The AGFORWARD research project (January 2014-December 2017), funded by the European Commission, is promoting agroforestry practices in Europe that will advance sustainable rural development. The project has four objectives:

1. to understand the context and extent of agroforestry in Europe,
2. to identify, develop and field-test innovations (through participatory research) to improve the benefits and viability of agroforestry systems in Europe,
3. to evaluate innovative agroforestry designs and practices at a field-, farm- and landscape scale, and
4. to promote the wider adoption of appropriate agroforestry systems in Europe through policy development and dissemination.

This report describes one of about 40 initial stakeholder workshops to address objective 2. Further details of the project can be found on the AGFORWARD website: www.agforward.eu

2. Description of system and current agroforestry development

The Chamber of Agriculture in Picardy has been involved in the development of agroforestry for a significant time. In the late 1980s, this included work with CRPF (the regional centre for forest owners) on the relocation of rural hedgerows. From 2006 to 2008, there was a project (funded by the French government) called "From research to field: organising the development of agroforestry". From 2009 to 2011, there was another project, led by the Chamber of Agriculture of Deux Sèvres (Poutou-Charentes) called "Improving the efficiency of agroforestry systems in large cultures".

At present the Chamber of Agriculture is involved in two national projects (2014-2016) which is described as a "Joint technological network". The first is about agroforestry and the second about functional biodiversity. The Chamber of Agriculture in Picardy is an associate member of these projects.



Figure 1. Picardy is in Northern France.

Since 2006, seven experimental projects have started in Picardy. The oldest has been monitored since its implementation seven years ago. Among the seven plots, four are located in Somme department (North of Picardy) and three in Oise department (south west). In these projects, the objectives and motivations of the farmers were different. For some, agroforestry offers hunting benefits; for others it offers biodiversity, environmental, and landscape benefits.



Figure 2. Agroforestry images from Picardy (Credit: R.Wartelle/CRAP, CRPF)

Two of the plots have organic production systems with long rotations. In these two plots, the trees were planted during the winter of 2013-2014. The trees in other plots were planted between 2007 and 2008 and they practice conventional agriculture using either short or long rotations, and with or without legumes. Only two out of the seven plots are ploughed. The plot sizes range from 5 ha to 30 ha. The sites are mainly located on loamy soils and the tree density is between 28 trees per hectare and 110 trees per hectare.

Each plot in the Picardy agroforestry network has a wide range of tree species. The least diverse system has six different species while the more diversified has twelve species. The distance between the tree rows is 30 m for most plots, although one has an inter-row width of 26 m, and one has an inter-row width of 50 m. Only four out of seven plots have a woodland control area (from Pastureau, 2014).

Table 1. Description of the agroforestry plots in the Picardy agroforestry network

Age of plots	1 to 7 years
Size	5 ha to 30 ha
Motivations of farmers	Hunting, environmental, landscape, agronomic
Plot management	Organic or conventional
Rotations	Short or long with and without legume
Tillage	Ploughing and minimum tillage
Density of trees	28 to 110 trees per hectare
Number of tree species on the plot	Between 6 and 12 species maximum per plot
Spacing between tree rows	26 to 50 m
Presence of a blank sample in forest	4 plots out of 7

Since the establishment of the experimental plots from 2007, the Chamber of Agriculture in Picardy has had a regional program for agroforestry development in partnership with the Regional Council. This development comes as an accompaniment before the 222 PDRH measure (second pillar of the CAP) activated in the region since 2011. From 2007 to 2013, seven projects were implemented with a total area of 100 ha. Some projects are being studied at different ripening stages and are waiting the new modalities of the Picardy Rural Development Program (second pillar of the new CAP).



Figure 3. Agroforestry images from Picardy (Credit: R.Wartelle/CRAP, CRPF)



Figure 3. Agroforestry image from Picardy (Credit: R.Wartelle/CRAP, CRPF)

Communication on the region

Meetings, visits and training have been organised since 2007. The communication tools have included panels, videos, updated sheets and articles in the agricultural and regional press. Since 2007, the Chamber of Agriculture has provided co-ordination with the support of the CRPF (regional centre for forest owners). Since 2012, the Organic Farming Association in Picardy has also become involved with the project, as several organic farmers are interested in agroforestry. The organisations involved have also helped to group the skills of all support operators in order to help the development and promotion of agroforestry in the region.

3. Meeting emerging needs

The meeting on 15 September 2014 was attended by 15 stakeholders. Because of the level of awareness of Picardy actors about agroforestry, it was decided to couple AGFORWARD meeting, with the annual monitoring assessment meeting. The meeting included three farmers (1 over 65 years) involved in agroforestry, and 12 advisors with interests in agriculture, forestry or organic farming. The stakeholders' meeting was held in a room and there was no field visit.

In order to determine the needs of current and potential practitioners of agroforestry, agroforestry groups were asked to:

- Reflect on the challenges and issues of current systems and practices.
- List the personal experiences, key concerns, and best practices, and
- Identify who would be willing to participate in further on-farm research.



Figure 4. AGFORWARD meeting (Credit: R.Wartelle/CRAP, CRPF)

Oral comments

The three farmers gave verbal responses to the question “To your mind, what problems might discourage or prevent an agroforestry project?” The first farmer highlighted the long-term issues of increasing machinery size, whether the system would be funded or not, and the orientation of the plots in relation to the light.

The second farmer commented on the success of planting, the young plants being browsed by game and the risks associated with payments within the common agricultural policy (CAP). The third farmer focused on the lack of subsidies, the lack of environmental motivation, and his/her age and financial health.

4. Perceptions of agroforestry

Positive issues

Based on the questionnaire, the most positive aspects of agroforestry was the positive effect on biodiversity and habitats, and originality and interest (Table 2). The issues where more than three people gave a ranking of 3 or higher were all focused on the environment: landscape aesthetics, carbon sequestration, soil conservation and water quality. Most of the participants had a pretty good knowledge of agroforestry issues and were already convinced of the benefits of agroforestry for agroecology.

The diversification of production and income was also cited as a positive issue. In terms of production, the need to consider more than the timber output, but also woodfuel and carbon was also highlighted.

Negative issues

The most negative aspects of agroforestry, or at least the obstacles to its development, were seen to be the complexity of work and issues related to mechanisation (Table 3). Other issues were the relationship between the farmer and the owner (more than 50% of the agricultural land in Picardy is rented), cash flow, crops losses due to predation (disease management and "weeds"), market risk and regulatory concerns regarding CAP threshold changes and the evolution of farm single payments.

The negative issues were mainly related to the management or the socio-economic aspects of agroforestry. It is clear that due to the innovative nature of agroforestry, successful schemes need to develop, in part, by trial and error, and there remains a crucial need for technical references and routes to secure the process. There remain important issues concerning the competition between crops and shaft (water, electricity), the management of the grass strip (weeds), and lower yields.

Those from administrative structures and councils emphasized the need for support and proper management of the first projects to be a showcase of what is possible and not to be a demonstration of the negative issues. There was also a concern that administrative and regulatory constraints change over a shorter cycle than a tree rotation. This led to projects which were sometimes to the detriment of the ideas of the farmer. The attitude of the neighboring farmers, family and the owners were also seen as obstacles to farmers wishing to develop agroforestry.

Table 3. The number of respondents giving different rankings (1st to 10th) of the **negative** effects of silvoarable agroforestry.

	Aspect	Negative ranking									
		1	2	3	4	5	6	7	8	9	10
Production effects	Animal health and welfare										
	Animal production										
	Losses by predation	1	1		2	1			1		
	Crop or pasture production	1			1	1		1			
	Crop or pasture quality/food safety	1									
	Disease and weed control	1		1			1	2	2	2	2
	Diversity of products										
	Timber, fruit and nut production										
	Timber, fruit and nut quality										1
Management effects	Complexity of work	3	3	1	1	4			1		
	Inspection of animals					1				1	1
	Labour	1		2	1	2		1	1		
	Management costs		1			1	1				1
	Mechanisation	1	3	4	1		3	1		1	1
	Originality and interest										
	Project feasibility	1			2		1			2	
	Tree regeneration/survival				1				1		1
Environmental effects	Biodiversity and habitat									1	
	Carbon sequestration										
	Change in fire risk								1		
	Climate moderation										
	Control of manure/noise/odour							1			
	General environment										
	Landscape aesthetics										
	Reduced groundwater recharge										
	Runoff and flood control										1
	Soil conservation										
Water quality											
Socio-economic effects	Administrative burden			1	1		2	1		1	
	Business opportunities								1	1	
	Cash flow		3		2	1	1		1		
	Farmer image								1		
	Income diversity										
	Inheritance and tax									1	2
	Regulation		3		1			2			
	Local food supply										
	Marketing premium										
	Market risk	1		2		2	2		2	1	
	Opportunity for hunting										
	Profit					1		2			1
	Farmer/hunter relationship							1			
	Farmer/owner relationship	2	2	1		1	1	1	1	2	1
	Rural employment						1	1			
Subsidy and grant eligibility	1						1				
Tourism											

5. Potential research themes and proposals

Proposals for future work could focus on three complementary areas:

Research - development of technical and economic routes

In terms of research and development, the consensus of the participants was on a need for technical and economic reference agroforestry farms. There was a need to seek safe technical routes for agroforestry development that could persuade currently hesitant farmers.

Much of the existing monitoring work in Picardy has focused on environmental amenities in response to the requirements of policy makers and funders. However it was explained that these issues were "obvious" to those already committed to agroforestry. In contrast, there has been minimal monitoring in Picardy of the management and socio-economic aspects. Three possible issues to explore were:

- labour and mechanization
- crop yield including the competition for light, and water
- management of grass strips

Establishment of a network of "index farms"

All the stakeholders agreed on the need to "see" agroforestry. They want to continue and develop showcase farms. It provides references for agroforestry and opportunities for monitoring and communication to different agricultural sectors.

This could help to reach the majority of farmers (who have little interest in agroforestry). By creating a network of agroforestry projects, it would be possible to develop concrete messages and to provide technical and economic responses to perceived constraints.

Simplification and sustainability of aid to support the establishment of agroforestry

Aid for the establishment appears to be necessary for farmers to develop agroforestry. Current support systems were perceived to be complex and participants highlighted the need for simpler mechanisms to administer and monitor agroforestry projects. Current eligibility criteria limited the choice of species, placed a high priority on timber value, and restricted the size of the eligible areas. There was also a perceived need to clarify the aid to support agroforestry projects (many measures of PDRH: mae, PvE, 216, 222) and ensure that it creates a sustainable vision over the long term.

6. Stakeholder involvement

Overall the farmers within the Picardy agroforestry network were open to participate in trials associated with the AGFORWARD project. The limits given are those of the availability of the necessary resources and monitoring plots. The farmers have already opened their farms to the Chamber of Agriculture and the CRPF and some are already engaged in monitoring programmes. However it is noted that the agroforestry projects in Picardy are relatively young compared to 20-30 year old systems observed in other parts of France. The research, development and training organisations work with the Chambers of Agriculture of Picardy were also interested to continue the work.

It was agreed that the AGFORWARD project creates an opportunity to expand the ongoing agroforestry activities in Picardy. However, any additional stakeholder meetings would ideally be embedded alongside their existing commitments. The involvement of AGFORWARD provides a European dimension to the ongoing regional and national (including RMT) development of agroforestry.

7. Acknowledgements

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