



MIXED
EFFICIENT AND RESILIENT
MIXED FARMING & AGROFORESTRY



MIXED

GA no:	862357
Action full title:	Multi-actor and transdisciplinary development of efficient and resilient MIXED farming and agroforestry-systems
Call/Topic:	Climate-smart and resilient farming
Type of action:	Research and Innovation action (RIA)
Starting date of action:	1 October 2020
Project duration:	48 months
Project end date:	30 September 2024
Deliverable number:	D3.1
Deliverable title:	Literature study and review of relevant research projects*
Document version:	Ver1
WP number:	WP3
Lead beneficiary:	1-AU**
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Nature of deliverable:	Report
Dissemination level:	PU
Delivery date from Annex 1:	M12
Actual delivery date:	29/09/2021 (M12)

* Deliverable title to be requested changed via amendment from "Literature study and review of results from relevant research projects" to "Literature study and review of relevant research projects".

** Lead beneficiary to be requested changed via amendment from 6-INRAE to 1-AU.

Both changes have been agreed on at the MIXED General Assembly 15/9-21, and the PO has been informed.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 862357. Please note that this deliverable reflects only the authors' views and that the Commission is not responsible for any use that may be made of the information it contains.

Summary

The aim of deliverable D3.1 was to make an initial introductory review of research projects and the wider literature on the topic of mixed farming in Europe, to use as a go-to resource for the further work in the MIXED Project and parallel research projects. A literature review covering a large and broad topic such as 'mixed farming systems' is challenging, and the report makes recommendations towards a narrower discipline focused literature search approach. As a research field, mixed farming has increased significantly since 2015 and with a noteworthy leap since 2018. Most of the funding towards mixed farming research is provided by the European Commission and 80% of the research is carried out by 6 countries alone. The data obtained from the literature search shows that agroforestry and mixed farming approaches, which incorporate trees and bushes, hold most of the data. The projects identified within the report also show an overrepresentation of an agroforestry focus and especially research focusing on energy-crops is wanting. The project identification has, however, been supported by project partners and stakeholders, which may have caused a bias in the data. Twenty-two projects were discarded from the analysis, due to not disseminating their research in English. All were from France, which highlights a potential barrier for knowledgebase sharing.

Contents

1	Introduction	4
2	Materials and methods	5
2.1	Literature review	5
2.2	Project review	5
3	Results	6
3.1	Literature review	6
3.1	Project review	9
3.1.1	Project Matrix	10
4	Perspectives	17
5	Appendix	18
5.1	Literature search string	18
5.2	Citation-report	19
5.3	Project contact details	27
5.4	References	30

List of Figures

Figure 1.	Number of publications from 1984 to present	7
Figure 2.	Number of publications by country	7
Figure 3.	Publications by research area	8
Figure 4.	Proportional difference between research areas	9

List of Tables

Table 1.	Top 10 funding agencies	8
Table 2.	Project Matrix	10

1 Introduction

The agricultural sector in Europe is increasingly under consideration as a sector which provides not only cultivated resources but also many other vital landscape scale functions and services to society worldwide (OECD, 2001). Agricultural land now must increase its efficiency, whilst decreasing its impacts on natural resources and maximising contributions to climate change mitigation. At the same time, the agricultural sector needs to face challenges of environmental, economic, social, and institutional type (Meuwissen et al., 2019). Every food system, on many different levels and scales, therefore, must be managed for several purposes and become multifunctional.

Mixed farming, whereby crop-livestock integration occurs in many different approaches, is increasingly recognised as a potential agricultural management system that can overcome some of these challenges and provide multiple benefits regarding ecosystem service delivery (Martin et al., 2016; Kronberg and Ryschawy, 2019). Mixed farming practices have strong traditional, historic and cultural roots and precede modern farming approaches. However, as an object of scientific study and research it is still relatively young. Now, the scientific evidence base surrounding the sustainability, efficiency and resilience of mixed systems is relatively small, but significant and quickly expanding.

The MIXED (Efficient and Resilient Mixed Farming and Agroforestry) project supports the development of mixed farming and agroforestry systems (MiFAS). Different levels are considered within the definition: farm, landscape, value chain, country and Europe. This report is an initial review of research projects and the wider literature on the topic of mixed farming in Europe. The aim of this report is to use such review as background for the further work in the MIXED Project and other relevant research projects.

This report is delivered within the Work Package 3 structure of the 'MIXED Project. The project operates with mixed farming and agroforestry projects, which are referred to as MiFAS. Different levels are considered within the definition: farm, landscape, value chain, country and Europe. The main focus is agricultural outputs. One of the challenges of building up an evidence base regarding mixed farming systems is clarity surrounding defining these systems, as the term can be very broad. More info on defining MiFAS is found within the WP3, Deliverable 6.1.

The report provides 1. an introductory literature review of mixed farming and agroforestry and 2. an overview of relevant research projects having mixed systems as object, both with a Europe focus. We aim to deliver this in a user-friendly and clear approach, so that it can be used as a useful initial resource for guidance and future work within the MIXED project and by its project partners.

2 Methods & materials

The challenge for this report has been to obtain a balance between ensuring that the topic is covered in-depth within a bibliographic search but also creating an output that is relevant and usable. Mixed farming is a very broad concept and the complexity surrounding its definition can pose challenges on the selection between what is included and what is not. The report is therefore delivered with the acknowledgement that it may include cases that are within the periphery of what would be considered mixed farming and agroforestry. Additionally, literature reviews about mixed farming systems are already published in the literature (see e.g., Martin et al., 2016), and our analysis of the literature is therefore on a qualitative and descriptive level instead. The emphasis of our analysis is mostly on the review of mixed farming systems addressed in other projects, as this type of analysis has never been carried out in scientific papers. This is of much interest to the MIXED project, because it provides an inventory of methods and research questions already addressed in other projects, that could be of inspiration and, collecting information about other pertinent project was a way to connect to other project leaders and participants.

2.1 Literature review

A systematic literature search was carried out on the 6th of September 2021 using a search string of keywords developed around the concept term 'Mixed Farming Systems' (see appendix I). Firstly, a Topic¹ search was conducted in Web of Science, focusing on peer-reviewed articles (including reviews and research papers). We considered the timespan between 1900 and 2021, including only European focused research. This decision was made because mixed farming can be highly context-specific and can assume different forms in different continents. We restrict therefore our analysis to the European context which is the most relevant for the case studies of the MIXED project. Further qualitative refinement insured the regional focus and excluded non-related research. Full search string can be found in appendix I and a citation report in appendix IV.

A descriptive analysis was carried out to identify historic and geographic trends and funding sources behind the publications, within the data and proportional representation of sub-topics. A further focus was made on establishing the proportional difference between occurrence of organic and conventional farming systems in the literature, by carrying out an abstract search for keywords associated with each sub-topic. An attempt was made at linking and categorising with respect to the WP3 D6.1 'MIXED assessment framework report', but the result was not functional for this initial review, as many mixed systems operate at multiple levels. But synergy between this report at the D6.1 report will become apparent in more comprehensive analyses further in the project.

2.1 Project review

The project review aims to provide an insight into the landscape of MiFAS research projects in Europe, by identifying and cataloguing relevant current and past projects. As part of WP3, a milestone (M3.1) consisted in organizing a joint workshop with sister projects (i.e., projects funded with the same Horizon call in the same year or previous year); the project STARGATE (www.stargate-h2020.eu) and the project AGROMIX

1 TS (topic) search includes title, author, abstract and keywords.

(<https://agromixproject.eu>). This joint seminar was held on June 14th, 2021 and served for building collaborations among project members and for identifying future points for joint work and scientific debate. That meeting was a very good opportunity for identifying people that already worked on projects (European and national) related to mixed farming and for this reason, participants was contacted with an email enquiry to aid in the identification of relevant projects to include.

The data obtained from the two approaches was screened and catalogued in a matrix table, whereby each project was shortly introduced, and its focus areas identified using a 'tick-off' option in the categories of: 'organic', 'conventional', 'crop-livestock', 'crop-crop' 'energy-crops', 'agroforestry' and 'networking'. These categories were very broad themes and the rationale behind this is to provide an easily navigated go-to resource for information. Projects which were not disseminating their research in English were discarded.

3 Results

3.1 Literature review

The initial result from the literature search was 1,296 records. A further manual qualitative refinement was performed for ensuring topic relevance and for checking the geographic region (Europe). This reduced the dataset to 882 records. The number of publications per year is represented in figure 1. The data shows that the first European article which focused on mixed farming was published in 1984 and that the number of publications has steadily increased since. In 2018 the number of publications increased even more considerably. Six countries account for producing most of the data (80%), namely Spain, Germany, France, England, Italy and Portugal – figure 2. Table 1 show that the largest funding agency for studying mixed farming systems is the European Union, although the data behind the funding records are not complete. Organic farming is very underrepresented within the dataset with only 38 records of a total of 882. And the majority of these are from 2012 and onwards.

Figure 3 shows that the field of mixed farming systems is the subject of research in different disciplines, ranging from few contributions in disciplines such as entomology and urban studies to numerically strong contributors like forestry, which encompasses agroforestry-related publications. Figure 4 gives an example of how 5 broad diverse disciplines, such as forestry, water resources, energy fuels, biodiversity conservation and social science have developed since 1984, where the first mixed farming system publication occurred. The connection between MiFAS and biodiversity conservation has been explored consistently much earlier than other disciplines and the focus of social science and energy fuels is a relative new approach from 2007 onwards.

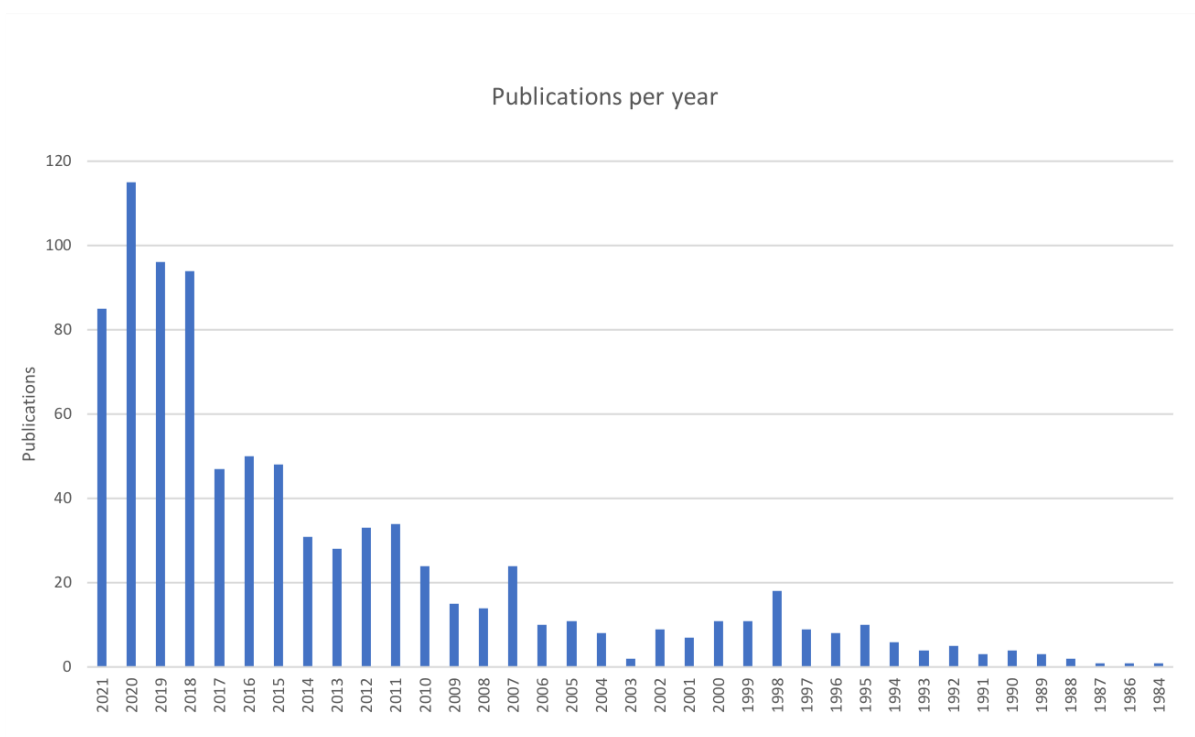


Figure 1 – Number of publications from 1984 to present

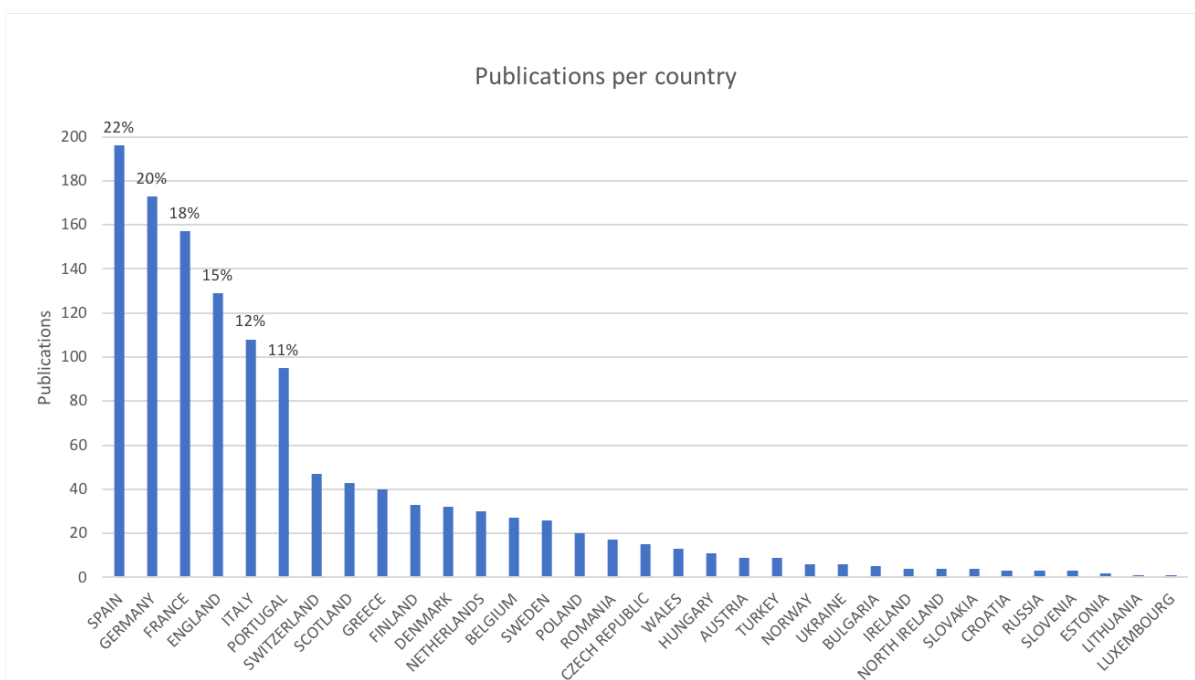


Figure 2 – Number of publications by country

Funding Agencies	Record Count	%
European Commission	101	11
Portuguese Foundation For Science And Technology	40	5
Federal Ministry Of Education Research	37	4
Spanish Government	25	3
Foundation De France	23	3
German Research Foundation	23	3
European Commission Joint Research Centre	20	2
UK Research Innovation	20	2
Natural Environment Research Council	19	2
French National Research Agency	15	2

Table 1 – top 10 funding agencies. Note that the percentage is calculated out of 684 (42%) entries and not the total dataset, as 336 (38%) records did not contain funding data.



Figure 3 – Publications by research area

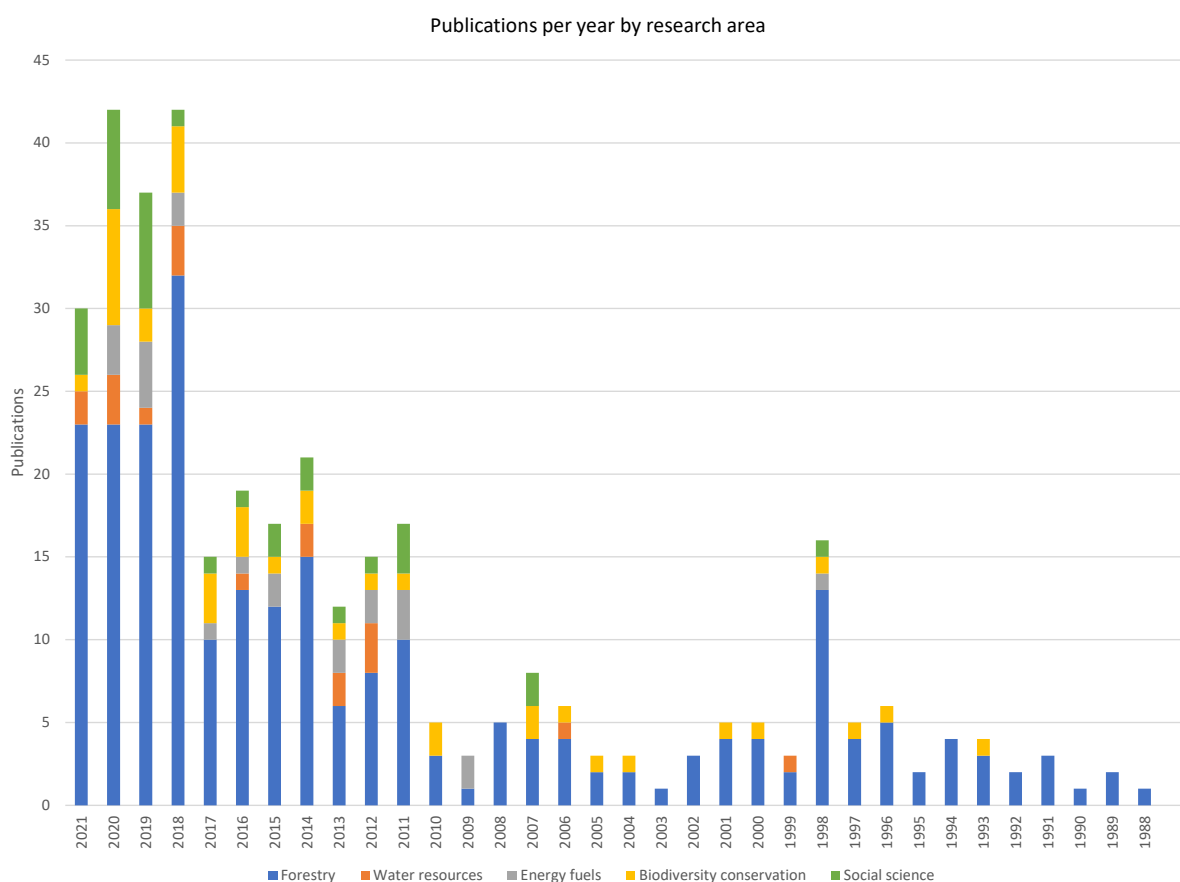


Figure 4 – Proportional differences between selected broader research areas per year within the data set

3.2 Project review

The initial project review resulted in the identification of 24 research projects related to mixed farming in Europe. In the follow-up email enquiry, a further 28 projects were identified, which totalled 52 projects. Projects which were not disseminating their research in English (all from France) were discarded (22). The projects were inserted in table 2, referred to as “Project Matrix” and catalogued the identified projects within the following focus areas: ‘organic’ (13), ‘conventional’ (3), ‘agroforestry’ (21) ‘crop-livestock’ (11), ‘crop-crop’ (12) ‘energy-crops’ (2), and ‘networking’ (17). There was often an overlap between focus areas and although all projects had an element of research, then some were related to practical farming, advocacy groups or professional organisations.

The results show that within the identified projects there is a tendency towards mixed systems that focus on organic as opposed to conventional farming approaches and, similarly to the literature search, agroforestry is well represented. Energy crop focused projects are not well represented, again a pattern similar to the literature study. Exchange of knowledge, networking and implementation features high and is an area that is given importance.

Table 2 – Project matrix, which introduces relevant mixed farming projects and certain focus areas. Contact details for each project in appendix III.

ID	Acronym	Description	Scale	Organic	Conventional	Agroforestry	Crop-livestock	Crop-crop	Energy crop	Network
1	AFINET	The project will build a forum aimed at fostering the exchanging of knowledge between scientists and practitioners in agroforestry.	EU			x				x
2	AGFORWARD	The overall aim of the project is to promote agroforestry practices in Europe to advance rural development i.e. improved competitiveness, and social and environmental enhancement	EU			x	x	x		x
3	Agricology	The ultimate aim is to become the 'go-to' resource for farmers and landowners who will be juggling demands of food production. The project provides a national network of agroforestry farms.	UK			x				
4	AgriLink	The project will link farmers, advisors and researchers to boost innovation on the wide variety of different farm types that exists in Europe.	EU							x
5	Agroforestry ELM	The aim is to design an environmental land management system for UK agroforestry. The project investigates two factors, payment incentives and advice and guidance, that are significant barriers to increased uptake of agroforestry by UK farmers.	UK			x				
6	AGROMIX	AGROMIX bring together farmers, researchers and policymakers to increase agricultural sustainability. They explore solutions and develop new tools for a more resilient land use in Europe.	EU			x				x
7	ALL-Ready	ALL-Ready aims to prepare a framework for a future European network of Living Labs (LL) and Research Infrastructures (IR) that will enable the transition towards agroecology throughout Europe.	EU							x

ID	Acronym	Description	Scale	Organic	Conventional	Agroforestry	Crop-livestock	Crop-crop	Energy crop	Network
8	ARBRATA-TOUILLE	The project aims at improving our knowledge on interactions between trees and vegetable production, and to propose new perspectives for agroforestry system conception and management.	F			x				
9	Bezdínek Farm	The project considers one farm where the aim is to optimise crop and animal production through a hi-tech hydroponic greenhouse for year-round vegetable growing.	CZ				x			
10	BIOEAST	The project seeksseek to develop knowledge and cooperation based circular bioeconomies, to enhance growth and create jobs especially in rural areas while maintaining or even strengthening environmental sustainability.	EU							(x)
11	BIOVINE	The project will develop natural solutions based on plant diversity to control pests.	EU	x				x		
12	BRANCHES	The project will facilitate sharing of information, new ideas and technologies among European agriculture and forestry – especially in rural areas.	EU			x				x
13	CanTogether	The project will design innovative sustainable mixed farming systems and define the best systems based on economy and environment.	EU				x			
14	Co-Free	The project aims to replace the use of copper in European organic and low input fruit, grapevine, potato, and tomato production systems. More specifically the agro-forestry based apple system will be investigated.	EU	x		x				
15	CONSOLE	The project focuses on developing the agri-environmental public goods that are delivered by agriculture and forestry by improving the relationship between the public administration and the farmers.	EU			x				x

ID	Acronym	Description	Scale	Organic	Conventional	Agroforestry	Crop-livestock	Crop-crop	Energy crop	Network
16	CORE Organic Cofund	CORE Organic is an ERA-NET - a network of European ministries and research councils funding research in organic food systems at national levels.	EU	x						
17	CropBooster-P	The aim is to increase crop production without compromise. The project will evaluate the most promising systems, evaluate economic, social and environmental impacts, and build international networks.	EU					x		x
18	DiverIMPACTS	The goal is to increase plant diversification through rotation and intercropping and arable/livestock interactions to increase sustainability. The project will focus on how to remove existing barriers to ensure implementation in rural areas.	EU				x	x		
19	DOMINO	The project seek to demonstrate that innovative orchard management can enhance soil fertility, biodiversity and economic sustainability of intensive organic fruit orchards by the use of e.g. secondary crops.	EU	x				x		
20	DSCATT	The focus of this project is aAgricultural intensification and soil carbon sequestration in tropical and temperate farming systems while increasing local food security.	F EAK ZW, SN			x	x	x		
21	EFFECT	The project aims to analyse, develop and test contract frameworks within environmental quality, economic sustainability, interdisciplinary research and stakeholder demands and needs.	EU							
22	EUdaphobase	The ultimate goal of EUdaphobase is to establish a pan- European soil-biological data and knowledge warehouse, which can be used for understanding, protecting and sustainably managing soils, their biodiversity and functions.	EU							x

ID	Acronym	Description	Scale	Organic	Conventional	Agroforestry	Crop-livestock	Crop-crop	Energy crop	Network
23	EUREKA	EUREKA brings together diverse partnerships through optimizing an open source e-platform (the FarmBook).	EU							x
24	FarmLife	The project contributes to a climate-resilient Europe by developing and demonstrating innovative adaptation technologies and approaches for the transition of conventional agriculture towards climate resilient agroforestry.	EU			x				
25	Fodder trees	The project aims at developing the outdoor environment of organic livestock through the introduction of trees (fodder trees).	B/N	x		x	x			
26	FRAMEwork	The main focus is on how to improve and sustain biodiversity and thereby benefit agriculture. They The project (?) seeksseek to strengthen local groups and sharing share of international research.	EU							x
27	GreenResilient	The main objective of the project is to demonstrate that an agroecological approach to greenhouse production is feasible and allows the establishment of robust agroecosystems in different European areas.	EU	x				x		
28	ICT-AGRI-FOOD	The project wants to underpin the transition towards more sustainable and resilient agri-food systems with digital technology. Data from the entire food chain is used for this purpose.	EU							
29	Legcombio	The project focuses on poultry and the use of space by the chickens, the impact on soil quality, the impact on crop yield (poultry in combination with berry), plant quality and health, economic feasibility / added value, management and the legislative framework. Poultry in combination with berry.	B/N				x			

ID	Acronym	Description	Scale	Organic	Conventional	Agroforestry	Crop-livestock	Crop-crop	Energy crop	Network
30	LIASON	The project aims to understand better what makes a successful partnership for innovation in business between agriculture, forestry and rural business.	EU							x
31	LIFE-MONTADO-ADAPT	The project aims at promoting the adaptation of the Montado/Dehesa system in Portugal and Spain.	P, E			x				
32	LIFT	The goal is to identify the potential benefits of the adoption of ecological farming in the European Union (EU) and to understand how socio-economic and policy factors impact the adoption, performance and sustainability of ecological farming at various scales, from the level of the single farm to that of a territory.	EU	x			x	x		
33	Mix-Enable	The project will explore the conditions of sustainability and robustness of organic mixed livestock farms in Europe. At farm scale and together with farmers, a more integrated, sustainable, and robust organic mixed livestock system is tested.	EU	x		x				
34	MIXED	The project explores the benefits of mixed farming and agroforestry systems to climate, environment and society and supports the further development of such systems.	EU	x	x	x	x	x	x	x
35	NEFERTITI	The overall objective is to establish an EU-wide highly connected network of demonstration and pilot farms designed to enhance knowledge exchanges through peer-to-peer demonstration of techniques on 10 major agricultural challenges in Europe.	EU							x
36	OPTAIN	The project aims to identify efficient and easy-to-implement techniques for the retention and reuse of water and nutrients in small agricultural catchments across Boreal, Continental, and Pannonian regions.	EU							

ID	Acronym	Description	Scale	Organic	Conventional	Agroforestry	Crop-livestock	Crop-crop	Energy crop	Network
37	P'Orchard	Pig farmers will work together and use agroforestry to set up an outdoor area for pigs. Knowledge, experience and innovative ideas from different pig farmers and other stakeholders will be brought together, exchanged and possible bottlenecks will be jointly identified.	B/N			x				x
38	PolyFarming	Demonstration project of an agro-silvo-pastoral integrated management system to lower land abandonment, improve environmental, social and economic sustainability in mediterranean mountain areas.	EU			x				
39	Prodehesa Montado	The project aims to promote actions to add value to the Spanish dehesas and Portuguese montados from a sustainable development perspective.	S/I			x				
40	Remix	The project will allow designing cropping systems based on agro-ecology for the benefit of farmers and the whole EU agricultural community using e.g. intercropping, species mixtures.	EU	x	x			x		
41	SAFE	The project is concerned with silvoarable agroforestry with including widely-spaced trees intercropped with arable crops.				x				
42	SHOWCASE	The project aims to achieve understanding of the integration of biodiversity into farming in the field of agroecology, socioeconomy, science networks, science communication specialists and nature conservation.	EU							x
43	SOLID	The project aim to evaluate competitiveness and environmental sustainability of organic and low-input systems (feeding of ruminants with forage-based diets and homegrown feeds).	EU	x			x			

ID	Acronym	Description	Scale	Organic	Conventional	Agroforestry	Crop-livestock	Crop-crop	Energy crop	Network
44	SPEAL	Participatory selection of annual or woody species adapted to agroecological practices				x				
45	STARGATE	The project is focused on integrating data on sustainable productivity and microclimate features to provide a better model for policymakers	EU				x	x		
46	SURE-FARM	The project aims at developing a framework to measure resilience, understanding farmers risk behaviour, assess farm demographics, and construct a roadmap for implementation.	EU		x					
47	SureVeg	The projects aim at making the vegetable production more sustainable. The systems are based on strip-cropping, and fertility strategies combined from recycling of waste and plant-based soil-improvers and fertilizers.	EU	x				x		
48	SustainFARM	The project focus is innovative and sustainable intensification of integrated food and non-food systems to develop climate-resilient agro-ecosystems in Europe.	EU							
49	TWECOM	The project embraces the economic potential of using biomass from landscape elements (such as hedges) for local energy or heat production with respect for the current ecological, cultural and social functions that these landscape elements fulfil.	EU						x	
50	WaterAGRI	The project focus is integrated water resource management of small agricultural catchments to improve both European agricultural production and the status of ecosystems	EU							
51	Weidescherm	The project aims at determining adequate planting as shelter for animals that are kept outside.	B/N			x				

52	WOOFS	The project investigating the benefits of linking woodchips to increased soil health and structure.		x							
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4 Perspectives

The literature and project review were carried out to provide an initial introduction and understanding for the European landscape of MiFAS research. This generated a database of literature bibliography of 882 records and a Project Matrix of 52 projects and their focus areas. The report has carried out a descriptive introduction to the dataset.

The data does, however, have limitations. Carrying out a broad literature search on the concept of MiFAS is challenging and further in-depth analysis of the data is required. Especially with a stronger focus on the sub-topics and connection to the WP3 D6.1 Framework deliverable (Accatino et al., submitted). MiFAS exist on many levels and this is not well defined both in the literature, but also there is confusion about what constitutes a MiFAS even within projects and academic departments. It would therefore be beneficial for further research that investigates transition to MiFAS and the performance (sustainability, efficiency, resilience etc.) of these systems to investigate the evidence-base on sub-topic level instead. Especially MiFAS that consists of crop-crop systems may not be identified in a general MiFAS search.

Another limitation of the literature search may be that farms and landscapes that would fall under the category of MiFAS have not been described as 'mixed system' until recently. Our method tries to mitigate this by several words in the search string. Organic farming may be particularly susceptible to this, as organic farming systems often are within the definition of a MiFAS system but may not identify themselves as such. This would explain organic farming being underrepresented within the data. Especially since organic MiFAS systems are well represented in the identified project matrix.

The results show that undoubtedly looking at farming systems with a MiFAS approach is a growing field of research. It is however interesting to note that within Europe, 80% of this is generated by 6 countries alone. Also, within the project matrix, 22 projects from France were discarded due to not disseminating their project outcomes in English. The outputs from these projects could have added to the evidence-base and the report recommends that this should be considered by project teams.

Agroforestry represents most of the data, both within the literature and the project matrix. This is noteworthy and the reason should be considered. Perhaps agroforestry as a concept is well defined, in comparison to for example crop-crop farming systems or energy crops? Overrepresentation within the project matrix may be explained by the fact that the data sampling was carried out in collaboration with project partners and participants from a recent joint event between the MIXED, AGROMIX and STAGATE projects.

Next steps forward from this initial review of literature and projects would be to contact all projects within the Project Matrix for data sampling of potential outputs from each project. This would aid the overall aim of WP3 to assess efficiency, sustainability and resilience, of landscapes from a bottom-up and from a top-down approach. A further step would be to gain an increased understanding for the evidence-base of MiFAS on the different levels (farm, landscape, value chain, country and Europe), identified in WP3 D6.1 framework.

5 Appendix

5.1 Appendix I – Literature search string

Query link:

<https://www.webofscience.com/wos/woscc/summary/26ff3d9a-21e1-4670-96ba-dee0fda559ad-070a1895/relevance/1>

(TS=("mixed farm* system*" OR "agricultural diversification*" OR "agricultural diversity" OR "crop-livestock integration" OR "integrated crop-livestock system" OR "mixed crop-livestock systems" OR agroforestry)) NOT (DT=("PROCEEDINGS PAPER" OR "EARLY ACCESS" OR "EDITORIAL MATERIAL" OR "BOOK REVIEW" OR "MEETING ABSTRACT" OR "CORRECTION" OR "BOOK CHAPTER" OR "NEWS ITEM" OR "NOTE" OR "LETTER" OR "DATA PAPER" OR "RETRACTED PUBLICATION" OR "DISCUSSION" OR "REPRINT") OR CU=("USA" OR "BRAZIL" OR "INDIA" OR "PEOPLES R CHINA") OR CU=("KENYA" OR "AUSTRALIA" OR "CANADA" OR "INDONESIA" OR "MEXICO" OR "ETHIOPIA" OR "COSTA RICA" OR "CAMEROON" OR "COLOMBIA" OR "NIGERIA" OR "SOUTH AFRICA" OR "JAPAN") OR CU=("GHANA" OR "THAILAND" OR "BENIN" OR "BURKINA FASO" OR "CHILE" OR "NEW ZEALAND" OR "PHILIPPINES" OR "UGANDA" OR "PERU" OR "MALI" OR "SENEGAL" OR "ARGENTINA" OR "MALAWI" OR "BANGLADESH" OR "ECUADOR" OR "CUBA" OR "PAKISTAN" OR "TANZANIA" OR "MALAYSIA" OR "ZAMBIA") OR CU=("MOROCCO" OR "IRAN" OR "ZIMBABWE" OR "VENEZUELA" OR "MADAGASCAR" OR "SRI LANKA" OR "EGYPT" OR "BOLIVIA" OR "ISRAEL" OR "NEPAL" OR "COTE D'IVOIRE" OR "SUDAN" OR "TUNISIA" OR "SOUTH KOREA" OR "RWANDA" OR "VIETNAM" OR "NIGER" OR "FED REP GER" OR "SYRIA" OR "DEM REP CONGO" OR "SAUDI ARABIA" OR "KYRGYZSTAN" OR "ALGERIA" OR "NICARAGUA" OR "TRINIDAD TOBAGO" OR "KAZAKHSTAN" OR "SIERRA LEONE" OR "SINGAPORE" OR "TAIWAN" OR "URUGUAY" OR "COMOROS" OR "FIJI" OR "GEORGIA" OR "GUINEA" OR "HAITI" OR "HONDURAS") OR CU=("W IND ASSOC ST" OR "UZBEKISTAN" OR "U ARAB EMIRATES" OR "SOMALIA" OR "SENEGAMBIA" OR "SAO TOME PRIN" OR "QATAR" OR "PAPUA N GUINEA" OR "OMAN" OR "NEW CALEDONIA" OR "PANAMA" OR "LESOTHO" OR "JORDAN" OR "GUYANA" OR "GABON" OR "EL SALVADOR" OR "CAMBODIA" OR "BOSNIA HERCEG" OR "ALBANIA" OR "SERBIA" OR "REP CONGO" OR "NAMIBIA" OR "MOZAMBIQUE" OR "MOLDOVA" OR "GUINEA BISSAU" OR "DOMINICAN REP" OR "BRUNEI" OR "BOTSWANA" OR "BELARUS" OR "VANUATU" OR "TOGO") OR TASCA=("VETERINARY SCIENCES" OR "METEOROLOGY ATMOSPHERIC SCIENCES" OR "CHEMISTRY ANALYTICAL" OR "IMAGING SCIENCE PHOTOGRAPHIC TECHNOLOGY" OR "TRANSPORTATION SCIENCE TECHNOLOGY" OR "ENGINEERING CHEMICAL" OR "CHEMISTRY MULTIDISCIPLINARY" OR "COMPUTER SCIENCE INTERDISCIPLINARY APPLICATIONS" OR "MATERIALS SCIENCE MULTIDISCIPLINARY" OR "CHEMISTRY APPLIED" OR "HISTORY PHILOSOPHY OF SCIENCE" OR "BIOCHEMISTRY MOLECULAR BIOLOGY" OR "COMPUTER SCIENCE INFORMATION SYSTEMS" OR "ENGINEERING MULTIDISCIPLINARY" OR "HOSPITALITY LEISURE SPORT TOURISM" OR "INSTRUMENTS INSTRUMENTATION" OR "PHARMACOLOGY PHARMACY" OR "PHYSICS APPLIED" OR "PUBLIC ENVIRONMENTAL OCCUPATIONAL HEALTH" OR "SPECTROSCOPY" OR "THERMODYNAMICS" OR "BIOCHEMICAL RESEARCH METHODS" OR "CHEMISTRY PHYSICAL" OR "CONSTRUCTION BUILDING TECHNOLOGY" OR "ENGINEERING ELECTRICAL ELECTRONIC" OR "LIMNOLOGY" OR "MATERIALS SCIENCE PAPER WOOD" OR "MATHEMATICAL COMPUTATIONAL BIOLOGY" OR "ARCHITECTURE" OR "BUSINESS" OR "CELL BIOLOGY" OR "CHEMISTRY ORGANIC" OR "COMPUTER SCIENCE ARTIFICIAL INTELLIGENCE" OR "ENDOCRINOLOGY METABOLISM" OR "ENGINEERING GEOLOGICAL" OR "GEOCHEMISTRY GEOPHYSICS" OR "HUMANITIES MULTIDISCIPLINARY" OR "INFORMATION SCIENCE LIBRARY SCIENCE" OR "MATERIALS SCIENCE COMPOSITES" OR "MATHEMATICS APPLIED" OR "METALLURGY METALLURGICAL ENGINEERING" OR "MYCOLOGY" OR "PALEONTOLOGY" OR "PHYSICS CONDENSED MATTER" OR "PSYCHOLOGY BIOLOGICAL" OR "PSYCHOLOGY MULTIDISCIPLINARY" OR "SOCIAL ISSUES" OR "SOCIAL SCIENCES MATHEMATICAL METHODS" OR "STATISTICS PROBABILITY" OR "TOXICOLOGY" OR "WOMEN S STUDIES") OR LA=("FRENCH" OR "GERMAN" OR "SPANISH" OR "RUSSIAN" OR "PORTUGUESE" OR "CZECH" OR "CROATIAN" OR "DUTCH" OR "POLISH" OR "TURKISH"))

5.2 Appendix II – Citation report

Timespan:1900-2021.	
Results found	882
Sum of the Times Cited	19011
Average Citations per Item	21.55
h-index	65

Title	Authors	Source Title	Pub. Year	Total Citations	Aver. Per Year	DOI
Biodiversity, disturbances, ecosystem function and management of European forests	Bengtsson, J et al.	FOREST ECOLOGY AND MANAGEMENT	2000	582	26.45	10.1016/S0378-1127(00)00378-9
Agroecological practices for sustainable agriculture. A review	Wezel, A. Et al.	AGRONOMY FOR SUSTAINABLE DEVELOPMENT	2014	362	45.25	10.1007/s13593-013-0180-7
Biodiversity impacts of some agricultural commodity production systems	Donald, PF	CONSERVATION BIOLOGY	2004	339	18.83	10.1111/j.1523-1739.2004.01803.x
The development of indigenous knowledge - A new applied anthropology	Sillitoe, P	CURRENT ANTHROPOLOGY	1998	337	14.04	10.1086/204722
Territory distribution and breeding success of skylarks <i>Alauda arvensis</i> on organic and intensive farmland in southern England	Wilson, JD et al	JOURNAL OF APPLIED ECOLOGY	1997	264	10.56	10.2307/2405262
Soil management in relation to sustainable agriculture and ecosystem services	Powlson, D. Et al	FOOD POLICY	2011	263	23.91	10.1016/j.foodpol.2010.11.025
The role of grasslands in food security and climate change	O'Mara, F. P.	ANNALS OF BOTANY	2012	252	25.2	10.1093/aob/mcs209
Silvoarable systems in europe - past, present and future prospects	Eichhorn, M et al	AGROFORESTRY SYSTEMS	2006	229	14.31	10.1007/s10457-005-1111-7
Geobotanical survey of wood-pasture habitats in Europe: diversity, threats and conservation	Bergmeier, E et al	BIODIVERSITY AND CONSERVATION	2010	186	15.5	10.1007/s10531-010-9872-3
Size structure and regeneration of Spanish holm oak <i>Quercus ilex</i> forests and dehesas: effects of agroforestry use on their long-term sustainability	Pulido, F et al	FOREST ECOLOGY AND MANAGEMENT	2001	174	8.29	10.1016/S0378-1127(00)00443-6

Do European agroforestry systems enhance biodiversity and ecosystem services? A meta-analysis	Torralba, M et al	AGRICULTURE ECOSYSTEMS & ENVIRONMENT	2016	166	27.67	10.1016/j.agee.2016.06.002
The role of saltbushes (atriplex-spp) in arid land rehabilitation in the mediterranean basin - a review	LEHOUEOU, H	AGROFORESTRY SYSTEMS	1992	160	5.33	10.1007/BF00115408
Combining solar photovoltaic panels and food crops for optimising land use: Towards new agrivoltaic schemes	Dupraz, C et al	RENEWABLE ENERGY	2011	152	13.82	10.1016/j.renene.2011.03.005
The central agroforestry hypothesis: The trees must acquire resources that the crop would not otherwise acquire	Cannell, M et al	AGROFORESTRY SYSTEMS	1996	152	5.85	10.1007/BF00129630
Spatial and temporal changes to the water regime of a Mediterranean vineyard due to the adoption of cover cropping	Celette, F et al	EUROPEAN JOURNAL OF AGRONOMY	2008	148	10.57	10.1016/j.eja.2008.04.007
Energy and the food system	Woods, J et al	PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES	2010	146	12.17	10.1098/rstb.2010.0172
Molecular diversity of a germplasm collection of squash (Cucurbita moschata) determined by SRAP and AFLP markers	Ferriol, M et al	CROP SCIENCE	2004	141	7.83	10.2135/cropsci2004.6530
Fine root distribution in Dehesas of Central-Western Spain	Moreno, G et al	PLANT AND SOIL	2005	127	7.47	10.1007/s11104-005-6805-0
Agroforestry systems for the production of woody biomass for energy transformation purposes	Gruenewald, H et al	ECOLOGICAL ENGINEERING	2007	122	8.13	10.1016/j.ecoleng.2006.09.012
Increasing Demand for Natural Rubber Necessitates a Robust Sustainability Initiative to Mitigate Impacts on Tropical Biodiversity	Warren-Thomas, E et al	CONSERVATION LETTERS	2015	120	17.14	10.1111/conl.12170
Designing cropping systems from nature	Malezieux, E	AGRONOMY FOR SUSTAINABLE DEVELOPMENT	2012	119	11.9	10.1007/s13593-011-0027-z
Restoration of Biodiversity and Ecosystem Services on Agricultural Land	Rey B et al	ECOSYSTEMS	2012	116	11.6	10.1007/s10021-012-9552-0
Multi-objective optimization and design of farming systems	Groot, J et al	AGRICULTURAL SYSTEMS	2012	115	11.5	10.1016/j.agsy.2012.03.012
Biodiversity and conservation of Turkish forests	Kaya, Z et al	BIOLOGICAL CONSERVATION	2001	114	5.43	10.1016/S0006-3207(00)00069-0

Introducing the montado, the cork and holm oak agroforestry system of Southern Portugal	Pinto-Correia, T et al	AGROFORESTRY SYSTEMS	2011	113	10.27	10.1007/s10457-011-9388-1
Biomass energy in industrialised countries - A view of the future	Hall, D	FOREST ECOLOGY AND MANAGEMENT	1997	113	4.52	10.1016/S0378-1127(96)03883-2
Cultivation techniques and medicinal properties of <i>Pleurotus</i> spp.	Gregori, A et al	FOOD TECHNOLOGY AND BIOTECHNOLOGY	2007	109	7.27	
Habitat loss, fragmentation, and alteration - Quantifying the impact of land-use changes on a Spanish dehesa landscape by use of aerial photography and GIS	Plieninger, T	LANDSCAPE ECOLOGY	2006	104	6.5	10.1007/s10980-005-8294-1
Impact of residue quality on the C and N mineralization of leaf and root residues of three agroforestry species	Vanlauwe, B et al	PLANT AND SOIL	1996	102	3.92	10.1007/BF00011437
Streuobst: a traditional agroforestry system as a model for agroforestry development in temperate Europe	Herzog, F	AGROFORESTRY SYSTEMS	1998	99	4.13	10.1023/A:1006152127824
A physiological production model for cocoa (<i>Theobroma cacao</i>): model presentation, validation and application	Zuidema, P et al	AGRICULTURAL SYSTEMS	2005	97	5.71	10.1016/j.agsy.2004.06.015
Effects of land-use and landscape structure on holm oak recruitment and regeneration at farm level in <i>Quercus ilex</i> L. Dehesas	Plieninger, T et al	JOURNAL OF ARID ENVIRONMENTS	2004	97	5.39	10.1016/S0140-1963(03)00103-4
Ecological benefits provided by alley cropping systems for production of woody biomass in the temperate region: a review	Tsonkova, P et al	AGROFORESTRY SYSTEMS	2012	96	9.6	10.1007/s10457-012-9494-8
Using modified foragers to harvest short-rotation poplar plantations	Spinelli, R et al	BIOMASS & BIOENERGY	2009	96	7.38	10.1016/j.biombioe.2009.01.001
Chemical composition, or quality, of agroforestry residues influences N ₂ O emissions after their addition to soil	Millar, N et al	SOIL BIOLOGY & BIOCHEMISTRY	2004	92	5.11	10.1016/j.soilbio.2004.02.008
Ecological benefits of the alley cropping agroforestry system in sensitive regions of Europe	Quinkenstein, A et al	ENVIRONMENTAL SCIENCE & POLICY	2009	89	6.85	10.1016/j.envsci.2009.08.008
Rain forest promotes trophic interactions and diversity of trap-nesting hymenoptera in adjacent agroforestry	Klein, A et al	JOURNAL OF ANIMAL ECOLOGY	2006	88	5.5	10.1111/j.1365-2656.2006.01042.x

Belowground interactions in a vine (<i>Vitis vinifera</i> L.)-tall fescue (<i>Festuca arundinacea</i> Shreb.) Intercropping system: Water relations and growth	Celette, F et al	PLANT AND SOIL	2005	86	5.06	10.1007/s11104-005-4415-5
Introducing urban food forestry: a multifunctional approach to increase food security and provide ecosystem services	Clark, K et al	LANDSCAPE ECOLOGY	2013	82	9.11	10.1007/s10980-013-9903-z
Reconciling productivity with protection of the environment: Is temperate agroforestry the answer?	Smith, J et al.	RENEWABLE AGRICULTURE AND FOOD SYSTEMS	2013	82	9.11	10.1017/S1742170511000585
Modeling environmental benefits of silvoarable agroforestry in Europe	Palma, J et al	AGRICULTURE ECOSYSTEMS & ENVIRONMENT	2007	82	5.47	10.1016/j.agee.2006.07.021
Effects of chemical-composition on n, ca, and mg release during incubation of leaves from selected agroforestry and fallow plant-species	TIAN, G et al	BIOGEOCHEMISTRY	1992	82	2.73	
Understanding the value and limits of nature-based solutions to climate change and other global challenges	Seddon, N et al	PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES	2020	81	40.5	10.1098/rstb.2019.0120
Current extent and stratification of agroforestry in the European Union	Den Herder, M et al	AGRICULTURE ECOSYSTEMS & ENVIRONMENT	2017	81	16.2	10.1016/j.agee.2017.03.005
Increased soil organic carbon stocks under agroforestry: A survey of six different sites in France	Cardinael, R et al	AGRICULTURE ECOSYSTEMS & ENVIRONMENT	2017	80	16	10.1016/j.agee.2016.12.011
Yield-SAFE: A parameter-sparse, process-based dynamic model for predicting resource capture, growth, and production in agroforestry systems	Van der Werf, W et al	ECOLOGICAL ENGINEERING	2007	80	5.33	10.1016/j.ecoleng.2006.09.017
Development and application of bio-economic modelling to compare silvoarable, arable, and forestry systems in three European countries	Graves, A et al	ECOLOGICAL ENGINEERING	2007	79	5.27	10.1016/j.ecoleng.2006.09.018
Robinia pseudoacacia L.: A Lesser Known Tree Species for Biomass Production	Gruenewald, H et al	BIOENERGY RESEARCH	2009	78	6	10.1007/s12155-009-9038-x
Moving towards the second generation of lignocellulosic biorefineries in the EU: Drivers, challenges, and opportunities	Hassan, S et al	RENEWABLE & SUSTAINABLE ENERGY REVIEWS	2019	77	25.67	10.1016/j.rser.2018.11.041
Impact of alley cropping agroforestry on stocks, forms and spatial distribution of soil organic carbon - A case study in a Mediterranean context	Cardinael, R et al	GEODERMA	2015	77	11	10.1016/j.geoderma.2015.06.015

Competition with winter crops induces deeper rooting of walnut trees in a Mediterranean alley cropping agroforestry system	Cardinael, R et al	PLANT AND SOIL	2015	77	11	10.1007/s11104-015-2422-8
A comparison of environmental, soil fertility, yield, and economical effects in six cropping systems based on an 8-year experiment in Norway	Eltun, R et al	AGRICULTURE ECOSYSTEMS & ENVIRONMENT	2002	75	3.75	10.1016/S0167-8809(01)00198-0
Testing the safety-net role of hedgerow tree roots by N-15 placement at different soil depths	Rowe, E et al	AGROFORESTRY SYSTEMS	1998	75	3.13	10.1023/A:1022123020738
Do combined applications of crop residues and inorganic fertilizer lower emission of N ₂ O from soil?	Frimpong, K et al	SOIL USE AND MANAGEMENT	2010	74	6.17	10.1111/j.1475-2743.2010.00293.x
Organic matter management for soil conservation and productivity restoration in Africa: a contribution from Francophone research	Roose, E et al	NUTRIENT CYCLING IN AGROECOSYSTEMS	2001	74	3.52	10.1023/A:1013349731671
Regional Farm Diversity Can Reduce Vulnerability of Food Production to Climate Change	Reidsma, P et al	ECOLOGY AND SOCIETY	2008	73	5.21	
LAND DEGRADATION IN MEDITERRANEAN EUROPE - CAN AGROFORESTRY BE A PART OF THE SOLUTION - A PROSPECTIVE REVIEW	LEHOUEOU, H et al	AGROFORESTRY SYSTEMS	1993	72	2.48	10.1007/BF00704925
Aspects of nitrogen-fixing Actinobacteria, in particular free-living and symbiotic Frankia	Sellstedt, A et al	FEMS MICROBIOLOGY LETTERS	2013	71	7.89	10.1111/1574-6968.12116
Comparing hybrid Populus clones for SRF across northern Italy after two biennial rotations: Survival, growth and yield	Paris, P et al	BIOMASS & BIOENERGY	2011	70	6.36	10.1016/j.biombioe.2010.12.050
N ₂ O emission from soil following combined application of fertiliser-N and ground weed residues	Garcia-Ruiz, R et al	PLANT AND SOIL	2007	70	4.67	10.1007/s11104-007-9382-6
A general classification of agroforestry practice	Sinclair, FL	AGROFORESTRY SYSTEMS	1999	70	3.04	10.1023/A:1006278928088
Compatibility of livestock grazing with stand regeneration in Mediterranean holm oak parklands	Plieninger, T	JOURNAL FOR NATURE CONSERVATION	2007	69	4.6	10.1016/j.jnc.2005.09.002
Potential benefits of commercial willow Short Rotation Coppice (SRC) for farm-scale plant and invertebrate communities in the agri-environment	Rowe, R et al	BIOMASS & BIOENERGY	2011	68	6.18	10.1016/j.biombioe.2010.08.046

A systematic map of ecosystem services assessments around European agroforestry	Fagerholm, N et al	ECOLOGICAL INDICATORS	2016	67	11.17	10.1016/j.ecolind.2015.11.016
Fractal analysis of the root architecture of <i>Gliricidia sepium</i> for the spatial prediction of root branching, size and mass: model development and evaluation in agroforestry	Ozier-Lafontaine, H et al	PLANT AND SOIL	1999	66	2.87	10.1023/A:1004461130561
Agricultural land-use and the spatial distribution of granivorous lowland farmland birds	Siriwardena, G et al	ECOGRAPHY	2000	65	2.95	10.1034/j.1600-0587.2000.230608.x
Assessing Light Competition for Cereal Production in Temperate Agroforestry Systems using Experimentation and Crop Modelling	Dufour, L et al	JOURNAL OF AGRONOMY AND CROP SCIENCE	2013	64	7.11	10.1111/jac.12008
Foraging trip duration and density of megachilid bees, eumenid wasps and pompilid wasps in tropical agroforestry systems	Klein, A et al	JOURNAL OF ANIMAL ECOLOGY	2004	64	3.56	10.1111/j.0021-8790.2004.00826.x
Agroecosystem restoration through strategic integration of perennials	Schulte, L et al	JOURNAL OF SOIL AND WATER CONSERVATION	2006	63	3.94	
Managing water resources for crop production	Wallace, J et al	PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES	1997	63	2.52	10.1098/rstb.1997.0073
Assessing linkages between ecosystem services, land-use and well-being in an agroforestry landscape using public participation GIS	Fagerholm, N et al	APPLIED GEOGRAPHY	2016	62	10.33	10.1016/j.apgeog.2016.06.007
Soil organic carbon and root distribution in a temperate arable agroforestry system	Upson, M et al	PLANT AND SOIL	2013	62	6.89	10.1007/s11104-013-1733-x
Morphological and molecular diversity of a collection of <i>Cucurbita maxima</i> landraces	Ferriol, M et al	JOURNAL OF THE AMERICAN SOCIETY FOR HORTICULTURAL SCIENCE	2004	62	3.44	10.21273/JASHS.129.1.0060
Land-use legacies in the forest structure of silvopastoral oak woodlands in the Eastern Mediterranean	Plieninger, T et al	REGIONAL ENVIRONMENTAL CHANGE	2011	61	5.55	10.1007/s10113-010-0192-7
Transfer of nitrogen from a tropical legume tree to an associated fodder grass via root exudation and common mycelial networks	Jalonen, R et al	PLANT CELL AND ENVIRONMENT	2009	61	4.69	10.1111/j.1365-3040.2009.02004.x
Conversion of a tropical forest into agroforest alters the fine root-related carbon flux to the soil	Hertel, D et al	SOIL BIOLOGY & BIOCHEMISTRY	2009	61	4.69	10.1016/j.soilbio.2008.11.020
Economic and management characterization of dehesa farms: implications for their sustainability	Gaspar, P et al	AGROFORESTRY SYSTEMS	2007	61	4.07	10.1007/s10457-007-9081-6

Mapping traditional cultural landscapes in the Mediterranean area using a combined multidisciplinary approach: Method and application to Mount Etna (Sicily; Italy)	Cullotta, S et al	LANDSCAPE AND URBAN PLANNING	2011	59	5.36	10.1016/j.landurbplan.2010.11.012
Experimental evidence for stronger cacao yield limitation by pollination than by plant resources	Groeneveld, J et al	PERSPECTIVES IN PLANT ECOLOGY EVOLUTION AND SYSTEMATICS	2010	59	4.92	10.1016/j.ppees.2010.02.005
The contribution of cacao agroforests to the conservation of lower canopy ant and beetle diversity in Indonesia	Bos, M et al	BIODIVERSITY AND CONSERVATION	2007	58	3.87	10.1007/s10531-007-9196-0
Target regions for silvoarable agroforestry in Europe	Reisner, Y et al	ECOLOGICAL ENGINEERING	2007	58	3.87	10.1016/j.ecoleng.2006.09.020
Nitrogen fixation by trees in relation to soil nitrogen economy	Dommergues, Y	FERTILIZER RESEARCH	1995	57	2.11	10.1007/BF00750516
Inca agroforestry: Lessons from the past	Chepstow-Lusty, A	AMBIO	2000	56	2.55	10.1639/0044-7447(2000)029[0322:IALFTP]2.0.CO;2
Combining livestock and tree crops to improve sustainability in agriculture: a case study using the Life Cycle Assessment (LCA) approach	Paolotti, L	JOURNAL OF CLEANER PRODUCTION	2016	54	9	10.1016/j.jclepro.2016.05.024
Mitigating the impacts of agriculture on biodiversity: bats and their potential role as bioindicators	Park, K	MAMMALIAN BIOLOGY	2015	54	7.71	10.1016/j.mambio.2014.10.004
Accelerating the Domestication of New Crops: Feasibility and Approaches	Osterberg, J et al	TRENDS IN PLANT SCIENCE	2017	53	10.6	10.1016/j.tplants.2017.01.004
Stratification ratio of soil organic C, N and C:N in Mediterranean evergreen oak woodland with conventional and organic tillage	Corral-Fernandez, R et al	AGRICULTURE ECOSYSTEMS & ENVIRONMENT	2013	53	5.89	10.1016/j.agee.2012.11.002
MICROLEIS - A MICROCOMPUTER-BASED MEDITERRANEAN LAND EVALUATION INFORMATION-SYSTEM	DELAROSA, D et al	SOIL USE AND MANAGEMENT	1992	53	1.77	
Which agroforestry options give the greatest soil and above ground carbon benefits in different world regions?	Feliciano, D et al	AGRICULTURE ECOSYSTEMS & ENVIRONMENT	2018	52	13	10.1016/j.agee.2017.11.032
Is farming enough in mountain areas? Farm diversification in the Pyrenees	Lopez-i-Gelats, F et al	LAND USE POLICY	2011	52	4.73	10.1016/j.landusepol.2011.01.005

Two-year evaluation of fuelbreaks grazed by livestock in the wildfire prevention program in Andalusia (Spain)	Ruiz-Mirazo, J et al	AGRICULTURE ECOSYSTEMS & ENVIRONMENT	2011	51	4.64	10.1016/j.agee.2011.02.002
Analysis of spatial patterns of oak decline in cork oak woodlands in Mediterranean conditions	Costa, A et al	ANNALS OF FOREST SCIENCE	2010	51	4.25	10.1051/forest/2009097
A renewed perspective on agroforestry concepts and classification	Torquebiau, E	COMPTES RENDUS DE L ACADEMIE DES SCIENCES SERIE III-SCIENCES DE LA VIE-LIFE SCIENCES	2000	51	2.32	10.1016/S0764-4469(00)01239-7
Agroforestry systems of high nature and cultural value in Europe: provision of commercial goods and other ecosystem services	Moreno, G et al	AGROFORESTRY SYSTEMS	2018	50	12.5	10.1007/s10457-017-0126-1
Yy Trees increase soil organic carbon and nutrient availability in temperate agroforestry systems	Pardon, P et al	AGRICULTURE ECOSYSTEMS & ENVIRONMENT	2017	50	10	10.1016/j.agee.2017.06.018
Valuing the carbon sequestration potential for European agriculture	Aertsens, J et al	LAND USE POLICY	2013	50	5.56	10.1016/j.landusepol.2012.09.003
Response of understorey forage to multiple tree effects in Iberian dehesas	Moreno, G	AGRICULTURE ECOSYSTEMS & ENVIRONMENT	2008	50	3.57	10.1016/j.agee.2007.04.006
Ziziphus spina-christi (L.) Willd.: a multipurpose fruit tree	Saied, A et al	GENETIC RESOURCES AND CROP EVOLUTION	2008	49	3.5	10.1007/s10722-007-9299-1
Relationships between N2O emissions and water-soluble C and N contents of agroforestry residues after their addition to soil	Millar, N et al	SOIL BIOLOGY & BIOCHEMISTRY	2005	49	2.88	10.1016/j.soilbio.2004.08.016
Ecological-economic trade-offs of Diversified Farming Systems - A review	Rosa-Schleich, J et al	ECOLOGICAL ECONOMICS	2019	48	16	10.1016/j.ecolecon.2019.03.002

5.3 Appendix III – Project contact details

1	AFINET	https://agroforestrynet.eu/afinet/ rettet link til
2	AGFORWARD	www.agforward.eu/
3	Agricology	www.agricology.co.uk/national-network-agroforestry-farms
4	AgriLink	www.agrilink2020.eu/
5	Agroforestry ELM	www.organicresearchcentre.com/our-research/research-project-library/agroforestry-elm-test-designing-an-environmental-land-management-system-for-uk-agroforestry/
6	AGROMIX	https://agromixproject.eu/
7	ALL-Ready	www.all-ready-project.eu/
8	ARBRATATOUILLE	https://arbratatouille.projet-agroforesterie.net/
9	Bezďínek Farm	https://enrd.ec.europa.eu/projects-practice/modernisation-farma-bezdinek-sro-agricultural-holding_en
10	BIOEAST	https://bioeast.eu/vision-objectives/
11	BIOVINE	https://projects.au.dk/coreorganiccofund/core-organic-cofund-projects/biovine/
12	BRANCHES	www.branchesproject.eu
13	CanTogether	www.wur.nl/en/show/canttogether.htm
14	Co-Free	https://www.organicresearchcentre.com/our-research/research-project-library/innovative-strategies-for-copper-free-low-input-and-organic-farming-systems/
15	CONSOLE	https://console-project.eu/about/
16	CORE Organic Cofund	https://projects.au.dk/coreorganiccofund/
17	CropBooster-P	www.cropbooster-p.eu/
18	DiverIMPACTS	www.diverimpacts.net/about.html
19	DOMINO	www.domino-coreorganic.eu
20	DSCATT	https://dscatt.net/
21	EFFECT	http://project-effect.eu/
22	Eudaphobase	www.eudaphobase.eu/
23	EUREKA	www.h2020eureka.eu/
24	FarmLife	www.farm-life.eu

25	Fodder trees	www.agroforestryvlaanderen.be/en/projects/voederbomen
26	FRAMEwork	www.framework-biodiversity.eu
27	GreenResilient	www.greenresilient.net
28	ICT-AGRI-FOOD	www.ictagrifood.eu/
29	Legcombio	www.agroforestryvlaanderen.be/en/projects/legcombio
30	LIASON	https://liaison2020.eu/
31	LIFE-MONTADO-ADAPT	www.lifemontadoadapt.com/?l=EN
32	LIFT	www.lift-h2020.eu
33	Mix-Enable	https://projects.au.dk/coreorganiccofund/core-organic-cofund-projects/mix-enable/
34	MIXED	https://projects.au.dk/mixed/
35	NEFERTITI	https://nefertiti-h2020.eu/
36	OPTAIN	www.optain.eu/
37	P'Orchard	www.agroforestryvlaanderen.be/en/projects/porchard
38	PolyFarming	https://polyfarming.eu/objective-and-actions/?lang=en
39	Prodehesa Montado	https://prodehesamontado.eu/en/objetive
40	ReMix	www.remix-intercrops.eu/
41	SAFE	www1.montpellier.inra.fr/safe/
42	SHOWCASE	https://showcase-project.eu
43	SOLID	www.solidairy.eu
44	SPEAL	www6.val-de-loire.inra.fr/biofora/Projets/SPEAL
45	STARGATE	www.stargate-h2020.eu/
46	SURE-FARM	www.surefarmproject.eu/
47	SureVeg	https://projects.au.dk/coreorganiccofund/core-organic-cofund-projects/sureveg/
48	SustainFARM	www.sustainfarm.eu/en/
49	TWECOM	www.twecom.eu
50	WaterAGRI	https://wateragri.eu/#
51	Weidescherm	www.agroforestryvlaanderen.be/en/projects/weidescherm

52	WOOFS	www.organicresearchcentre.com/our-research/research-project-library/woofs-woodchip-for-fertile-soils/
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