

## Appendix 1

Supplemental information for: **Fostering creativity to design biodiversity-based cropping systems that consider the long term: a participation framework**

**Table A1.1:** Inventory of the 97 plant functional traits utilized for preliminary crop choice in the perspective of co-designed workshop, detailing ecosystem services influenced by each trait

Plant Traits	Plant part	Services enhanced by the traits	Sources
Ability to fix atmospheric N	Belowground	Supply of nutrients for agroecosystem functioning	Freschet and al., 2021
Ability to mycorrhizal symbiosis	Belowground	Supply of nutrients for agroecosystem functioning	Freschet and al., 2021
Ability to mycorrhizal symbiosis	Belowground	Regulation of water balance for crop development	Freschet and al., 2021
Ability to mycorrhizal symbiosis	Belowground	Pest control	Freschet and al., 2021
Ability to produce secondary metabolite (such as alkaloids etc.)	Aboveground	Pest control	Freschet and al., 2021
Ability to produce secondary metabolite (such as alkaloids etc.)	Aboveground	Pest control	Freschet and al., 2021
Ability to produce secondary metabolite (such as alkaloids etc.)	Belowground	Pest control	Freschet and al., 2021
Ability to produce secondary metabolite (such as alkaloids etc.)	Belowground	Pest control	Freschet and al., 2021
Ability to produce storage structure	Belowground	Food provision	Freschet and al., 2021
Biomass	Belowground	Regulation of greenhouse gases	Freschet and al., 2021
Biomass	Aboveground	Regulation of greenhouse gases	Miedema Brown and Anand, 2022
Biomass	Belowground	Supply of nutrients for agroecosystem functioning	Freschet and al., 2021
Biomass	Aboveground	Supply of nutrients for agroecosystem functioning	Miedema Brown and Anand, 2022
Coverage rate	Aboveground	Supply of nutrients for agroecosystem functioning	Miedema Brown and Anand, 2022
Fine roots %	Belowground	Erosion control	Freschet and al., 2021
Flower color	Aboveground	Maintenance of associated biodiversity	Miedema Brown and Anand, 2022
Flower size	Aboveground	Maintenance of associated biodiversity	Miedema Brown and Anand, 2022
Flower type	Aboveground	Maintenance of associated biodiversity	Miedema Brown and Anand, 2022
Fruit/seed C content	Aboveground	Food provision	Miedema Brown and Anand, 2022
Fruit/seed C:N content	Aboveground	Food provision	Miedema Brown and Anand, 2022
Fruit/seed composition	Aboveground	Food provision	Miedema Brown and Anand, 2023
Fruit/seed mass	Aboveground	Food provision	Miedema Brown and Anand, 2022
Fruit/seed N content	Aboveground	Food provision	Miedema Brown and Anand, 2022
Horizontal and vertical root distribution	Belowground	Supply of nutrients for agroecosystem functioning	Freschet and al., 2021
Leaf area	Aboveground	Supply of nutrients for agroecosystem functioning	Miedema Brown and Anand, 2022
Leaf area	Aboveground	Regulation of greenhouse gases	Miedema Brown and Anand, 2022
Leaf area	Aboveground	Regulation of water balance for crop development	Miedema Brown and Anand, 2022

Leaf area index	Aboveground	Supply of nutrients for agroecosystem functioning	Miedema Brown and Anand, 2022
Leaf area index	Aboveground	Regulation of water balance for crop development	Miedema Brown and Anand, 2022
Leaf C content	Aboveground	Supply of nutrients for agroecosystem functioning	Miedema Brown and Anand, 2022
Leaf C content	Aboveground	Food provision	Miedema Brown and Anand, 2022
Leaf C:N ratio	Aboveground	Supply of nutrients for agroecosystem functioning	Miedema Brown and Anand, 2022
Leaf C:N ratio	Aboveground	Regulation of water balance for crop development	Miedema Brown and Anand, 2022
Leaf cover/Foliage architecture	Aboveground	Regulation of water balance for crop development	Miedema Brown and Anand, 2022
Leaf cover/Foliage architecture	Aboveground	Maintenance of associated biodiversity	Miedema Brown and Anand, 2022
Leaf cover/Foliage architecture	Aboveground	Food provision	Miedema Brown and Anand, 2022
Leaf cover/Foliage architecture	Aboveground	Weed control	Miedema Brown and Anand, 2022
Leaf density	Aboveground	Regulation of water balance for crop development	Miedema Brown and Anand, 2022
Leaf density	Aboveground	Supply of nutrients for agroecosystem functioning	Miedema Brown and Anand, 2022
Leaf density	Aboveground	Erosion control	Miedema Brown and Anand, 2022
Leaf density	Aboveground	Weed control	Miedema Brown and Anand, 2022
Leaf dry matter content	Aboveground	Food provision	Miedema Brown and Anand, 2022
Leaf dry matter content	Aboveground	Supply of nutrients for agroecosystem functioning	Miedema Brown and Anand, 2022
Leaf dry matter content	Aboveground	Regulation of water balance for crop development	Miedema Brown and Anand, 2022
Leaf N content	Aboveground	Supply of nutrients for agroecosystem functioning	Miedema Brown and Anand, 2022
Leaf N content	Aboveground	Food provision	Miedema Brown and Anand, 2022
Leaf P content	Aboveground	Supply of nutrients for agroecosystem functioning	Miedema Brown and Anand, 2022
Leaf pubescence	Aboveground	Pest control	Miedema Brown and Anand, 2022
Leaf thickness	Aboveground	Pest control	Miedema Brown and Anand, 2022
Leaf thickness	Aboveground	Regulation of water balance for crop development	Miedema Brown and Anand, 2022
Leaf thickness	Aboveground	Supply of nutrients for agroecosystem functioning	Miedema Brown and Anand, 2022
Leaf toughness	Aboveground	Pest control	Miedema Brown and Anand, 2022
Lignin content	Aboveground	Supply of nutrients for agroecosystem functioning	Miedema Brown and Anand, 2022
Lignin content	Aboveground	Pest control	Miedema Brown and Anand, 2022
Lignin content	Belowground	Supply of nutrients for agroecosystem functioning	Freschet and al., 2021
Lignin content	Belowground	Pest control	Freschet and al., 2021
Lignin content	Belowground	Supply of nutrients for agroecosystem functioning	Freschet and al., 2021
Lignin content	Belowground	Pest control	Freschet and al., 2021
Nitrogen fixation rate	Belowground	Supply of nutrients for agroecosystem functioning	Freschet and al., 2021
Nitrophilicity	Belowground	Supply of nutrients for agroecosystem functioning	Freschet and al., 2021
Plant height	Aboveground	Weed control	Miedema Brown and Anand, 2022
Plant height	Aboveground	Supply of nutrients for agroecosystem functioning	Miedema Brown and Anand, 2022
Plant height	Aboveground	Food provision	Miedema Brown and Anand, 2022
Plant height	Aboveground	Regulation of greenhouse gases	Miedema Brown and Anand, 2022

Ration shoot:root	Belowground	Supply of nutrients for agroecosystem functioning	Freschet and al., 2021
Root branching density	Belowground	Regulation of water balance for crop development	Freschet and al., 2021
Root C content	Belowground	Supply of nutrients for agroecosystem functioning	Freschet and al., 2021
Root C content	Belowground	Food provision	Freschet and al., 2021
Root C:N	Belowground	Supply of nutrients for agroecosystem functioning	Freschet and al., 2021
Root C:N ratio	Belowground	Supply of nutrients for agroecosystem functioning	Freschet and al., 2021
Root C:N ratio	Belowground	Regulation of water balance for crop development	Freschet and al., 2021
Root distribution (horizontal and verticale)	Belowground	Supply of nutrients for agroecosystem functioning	Freschet and al., 2021
Root distribution (horizontal and verticale)	Belowground	Regulation of water balance for crop development	Freschet and al., 2021
Root growth	Belowground	Weed control	Freschet and al., 2021
Root hair density	Belowground	Regulation of water balance for crop development	Freschet and al., 2021
Root hair density	Belowground	Supply of nutrients for agroecosystem functioning	Freschet and al., 2021
Root hair density	Belowground	Maintenance of associated biodiversity	Freschet and al., 2021
Root length/depth (maximum)	Belowground	Supply of nutrients for agroecosystem functioning	Freschet and al., 2021
Root length/depth (maximum)	Belowground	Erosion control	Freschet and al., 2021
Root length/depth (maximum)	Belowground	Weed control	Freschet and al., 2021
Root length/depth (maximum)	Belowground	Regulation of greenhouse gases	Freschet and al., 2021
Root length/depth (maximum)	Belowground	Regulation of water balance for crop development	Freschet and al., 2021
Root mass	Belowground	Erosion control	Freschet and al., 2021
Root mass	Belowground	Regulation of greenhouse gases	Freschet and al., 2021
Root mass	Belowground	Supply of nutrients for agroecosystem functioning	Freschet and al., 2021
Root N content	Belowground	Supply of nutrients for agroecosystem functioning	Freschet and al., 2021
Root N content	Belowground	Food provision	Freschet and al., 2021
Root P content	Belowground	Supply of nutrients for agroecosystem functioning	Freschet and al., 2021
Root P content	Belowground	Supply of nutrients for agroecosystem functioning	Freschet and al., 2021
Root thickness	Belowground	Pest control	Freschet and al., 2021
Root thickness	Belowground	Regulation of water balance for crop development	Freschet and al., 2021
Root thickness	Belowground	Supply of nutrients for agroecosystem functioning	Freschet and al., 2021
Root toughness	Belowground	Pest control	Freschet and al., 2021
Rooting system lifespan	Belowground	Supply of nutrients for agroecosystem functioning	Freschet and al., 2021
Shoot mass	Belowground	Erosion control	Freschet and al., 2021
Specific root respiration	Belowground	Regulation of greenhouse gases	Freschet and al., 2021
Type of mycorrhizal symbiosis	Belowground	Regulation of greenhouse gases	Freschet and al., 2021

**Table A1.2:** Total detail of crop choice by participants during the workshop

Crop name	Latin name	Family	Functional groups	Duration	P1	P2	P3	P4	P5	Total crop choice occurrence
Alfalfa	Medicago sativa	Fabaceae	Legumes	perennial	0	1	0	1	0	2
Bean	Phaseolus vulgaris	Fabaceae	Legumes	annual	0	0	0	0	0	0
Bristle oat	Avena sativa	Poaceae	Ley species	annual	0	0	0	1	0	1
Bromegrass	Bromus spp.	Poaceae	Ley species	perennial	0	0	0	0	0	0
Buckwheat	Fagopyrum esculentum	Polygonaceae	Broadleave	annual	1	1	1	1	0	4
Camelina	Camelina sativa	Brassicaceae	Broadleave	annual	0	0	0	0	0	0
Carrot	Daucus carota	Apiaceae	Broadleave	annual	0	0	1	0	0	1
Chickpea	Cicer arietinum	Fabaceae	Legumes	annual	0	0	0	0	0	0
Chinese radish*	Raphanus sativus var. longipinnatus	Brassicaceae	Broadleave	annual	0	0	1	0	0	1
Cock's foot	Dactylis spp.	Poaceae	Ley species	perennial	0	0	0	1	0	1
Corn	Zea mays	Poaceae	Cereal	annual	0	0	0	1	0	1
Crimson clover	Trifolium incarnatum	Fabaceae	Legumes	annual	0	0	0	1	0	1
Egyptian clover*	Trifolium alexandrinum	Fabaceae	Legumes	annual	0	1	0	0	0	1
English ryegrass	Lolium perenne	Poaceae	Ley species	perennial	0	0	0	1	0	1
Faba bean	Vicia faba	Fabaceae	Legumes	annual	0	0	0	0	0	0
Fenugreek	Trigonella foenum-graecum	Fabaceae	Legumes	annual	0	0	0	0	0	0
Fescues	Festuca spp.	Poaceae	Ley species	perennial	0	0	0	0	0	0
Fodder beet	Beta vulgaris	Chenopodiaceae	Broadleave	annual	1	0	0	0	0	1
Fodder radish	Raphanus sativus	Brassicaceae	Broadleave	annual	0	0	0	1	0	1
Hemp	Cannabis sativa	Cannabaceae	Broadleave	annual	1	0	0	0	0	1
Italian ryegrass	Lolium multiflorum	Poaceae	Ley species	perennial	0	0	0	0	0	0
Leek	Allium porum	Aliaceae	Broadleave	annual	0	0	0	1	0	1
Lentil	Lens culinaris	Fabaceae	Legumes	annual	1	1	0	0	1	3
Millet	Panicum miliaceum	Poaceae	Cereal	annual	0	0	0	0	0	0
Miscanthus	Miscanthus spp.	Poaceae	Ley species	perennial	0	0	0	0	0	0
Onion	Allium cepa	Aliaceae	Broadleave	annual	0	0	1	0	1	2
Orchardgrass	Dactylis glomerata	Poaceae	Ley species	perennial	0	0	0	0	0	0
Phacelia	Phacelia tanacetifolia	Boraginaceae	Broadleave	annual	0	1	1	0	1	3
Potato	Solanum tuberosum	Solanaceae	Broadleave	annual	1	0	1	0	1	3
Quinoa	Chenopodium quinoa	Chenopodiaceae	Broadleave	annual	0	0	0	1	0	1

Rapeseed	Brassica napus	Brassicaceae	Broadleave	annual	1	1	1	0	0	3
Red clover	Trifolium pratense	Fabaceae	Legumes	perennial	0	0	0	1	0	1
Rye	Secale cereale	Poaceae	Cereal	annual	0	0	0	0	0	0
Sainfoin	Onobrychis viciifolia	Fabaceae	Ley species	annual	0	0	0	0	1	1
Sorghum	Sorghum bicolor	Poaceae	Cereal	annual	1	0	0	0	0	1
Soybean	Glycine max	Fabaceae	Legumes	annual	0	0	0	0	0	0
Spelt	Triticum spelta	Poaceae	Cereal	annual	0	0	1	0	1	2
Spring barley	Hordeum vulgare	Poaceae	Cereal	annual	0	0	0	1	0	1
Spring faba bean	Vicia faba	Fabaceae	Legumes	annual	0	1	1	1	0	3
Spring field pea	Pisum sativum	Fabaceae	Legumes	annual	0	0	0	1	0	1
Spring flax	Linum usitatissimum	Lineaceae	Broadleave	annual	0	0	0	0	0	0
Spring lupin	Lupinus spp.	Fabaceae	Legumes	annual	0	0	0	0	0	0
Spring oat	Avena sativa	Poaceae	Cereal	annual	0	1	0	1	0	2
Spring spinach	Spinacia oleracea	Chenopodiaceae	Broadleave	annual	0	0	0	0	0	0
Spring wheat	Triticum aestivum	Poaceae	Cereal	annual	0	0	0	0	1	1
Sunflower	Helianthus annuus	Asteraceae	Broadleave	annual	0	1	0	0	0	1
Timothy grass	Phleum pratense	Poaceae	Ley species	perennial	0	0	0	1	0	1
Trefoil	Lotus corniculatus L.	Fabaceae	Legumes	perennial	0	0	0	1	0	1
Triticale	× Triticosecale	Poaceae	Cereal	annual	0	0	0	1	0	1
Turnip rape	Brassica rapa	Brassicaceae	Broadleave	annual	0	0	0	0	0	0
Vetch	Vicia spp.	Fabaceae	Legumes	annual	0	0	0	1	0	1
Vetchling	Lathyrus spp.	Fabaceae	Ley species	annual	0	0	0	0	0	0
White clover	Trifolium repens	Fabaceae	Legumes	perennial	0	1	1	1	0	3
White mustard	Sinapis alba	Brassicaceae	Broadleave	annual	0	0	1	1	1	3
Winter barley	Hordeum vulgare	Poaceae	Cereal	annual	0	0	0	0	0	0
Winter faba bean	Vicia faba	Fabaceae	Legumes	annual	0	0	0	1	0	1
Winter field pea	Pisum sativum	Fabaceae	Legumes	annual	1	0	0	0	0	1
Winter flax	Linum usitatissimum	Lineaceae	Broadleave	annual	0	0	0	0	0	0
Winter lupin	Lupinus spp.	Fabaceae	Legumes	annual	0	0	0	0	0	0
Winter oat	Avena sativa	Poaceae	Cereal	annual	0	0	0	0	0	0
Winter spinach	Spinacia oleracea	Chenopodiaceae	Broadleave	annual	0	0	0	0	0	0
Winter wheat	Triticum aestivum	Poaceae	Cereal	annual	1	1	1	1	0	4

**Table A1.3:** Details of the characteristics given by participants as rationale for their crop choice during workshop.

<b>Crop species</b>	<b>Raw characteristics given by participants during the crop choice</b>	<b>Knowledge origin</b>	<b>Ecosystem service targeted</b>
Spring oats	Food	T	Food provision
Spring oats	Food	T	Food provision
Spring oats	Good association with lentils*	T	Supply of nutrients for agroecosystem functioning
Spring oats	Good association with lentils*	T	Supply of nutrients for agroecosystem functioning
Spring oats	Good association with lentils*	T	Supply of nutrients for agroecosystem functioning
Winter oats	Food supply	T	Food provision
Fodder beet	Forage potential	T	Food provision
Fodder beet	Forage potential	T	Food provision
Spring wheat	Food	T	Food provision
Winter wheat	Food	T	Food provision
Winter wheat	Food	T	Food provision
Winter wheat	Food	T	Food provision
Winter wheat	Food	T	Food provision
Winter wheat	Good association with faba bean*	E	Supply of nutrients for agroecosystem functioning
Winter wheat	Good association with faba bean*	E	Pest control
Winter wheat	Good association with faba bean*	E	Weed control
Carrot	Food supply	T	Food provision
Carrot	Organoleptic quality - vitamins	Sp	Food provision
Hemp	Limitation of GHG emissions	E	Regulation of greenhouse gases
Hemp	Pollination	Sp	Maintenance of associated biodiversity
Hemp	Food	T	Food provision
Rapeseed	Weed control	T	Weed control
Rapeseed	Soil fertility maintenance	T	Supply of nutrients for agroecosystem functioning
Rapeseed	Soil fertility maintenance	T	Supply of nutrients for agroecosystem functioning
Rapeseed	Soil structuring	E	Supply of nutrients for agroecosystem functioning
Rapeseed	Soil structuring	E	Regulation of water balance for crop development
Rapeseed	Soil structuring	E	Erosion control
Rapeseed	Food	T	Food provision
Rapeseed	Food	T	Food provision
Rapeseed	Low sensitivity to bioaggressors	Sp	Regulation of greenhouse gases

Rapeseed	Forage potential	E	Food provision
Cocksfoot	Drought resistance	E	Regulation of water balance for crop development
Cocksfoot	Forage supply	T	Food provision
Spelt	Disease resistance	T	Pest control
Spelt	Disease resistance	T	Pest control
Spelt	Drought resistance	E	Regulation of water balance for crop development
Spelt	Food	T	Supply of nutrients for agroecosystem functioning
Spelt	Food	T	Supply of nutrients for agroecosystem functioning
Spinach	Food supply	T	Food provision
Spinach	Valorization of nitrogen residues	Sp	Supply of nutrients for agroecosystem functioning
Fescue	Deep root system	T	Regulation of water balance for crop development
Fescue	Deep root system	T	Supply of nutrients for agroecosystem functioning
Fescue	Forage supply	T	Food provision
Winter faba bean	Forage potential	T	Food provision
Winter faba bean	Nitrogen supply to the soil	T	Supply of nutrients for agroecosystem functioning
Spring faba bean	Forage potential	E	Food provision
Spring faba bean	Forage potential	E	Food provision
Spring faba bean	Nitrogen supply to the soil	T	Supply of nutrients for agroecosystem functioning
Spring faba bean	Nitrogen supply to the soil	T	Supply of nutrients for agroecosystem functioning
Timothy	Forage supply	T	Food provision
Lentil	Food	T	Food provision
Lentil	Food	T	Food provision
Lentil	Forage potential	E	Food provision
Lentil	Nitrogen supply to the soil	T	Supply of nutrients for agroecosystem functioning
Lentil	Nitrogen supply to the soil	T	Supply of nutrients for agroecosystem functioning
Lentil	Nitrogen supply to the soil	T	Supply of nutrients for agroecosystem functioning
Bird's-foot trefoil	Nitrogen supply	T	Supply of nutrients for agroecosystem functioning
Alfalfa	Soil structuring	E	Erosion control
Alfalfa	Soil structuring	E	Supply of nutrients for agroecosystem functioning
Alfalfa	Soil structuring	E	Regulation of water balance for crop development
Alfalfa	Deep nutrient capture	E	Supply of nutrients for agroecosystem functioning
Alfalfa	Deep water capture	T	Regulation of water balance for crop development
Alfalfa	Weed control	Sp	Weed control
Alfalfa	Forage potential	E	Food provision
Alfalfa	Forage potential	E	Food provision
Maize	Food	T	Food provision
White mustard	Pollination	T	Maintenance of associated biodiversity

White mustard	Frost sensitive	E	Weed control
White mustard	Pest control	T	Pest control
White mustard	Pest control	E	Pest control
White mustard	Pest control	E	Pest control
White mustard	Soil structuring	T	Supply of nutrients for agroecosystem functioning
White mustard	Soil structuring	T	Erosion control
White mustard	Soil structuring	T	Regulation of water balance for crop development
White mustard	Weed control	T	Weed control
White mustard	Weed control	T	Weed control
White mustard	Soil fertility maintenance	T	Supply of nutrients for agroecosystem functioning
White mustard	Biomass	T	Supply of nutrients for agroecosystem functioning
Onion	Pollination	T	Maintenance of associated biodiversity
Onion	Organoleptic quality	E	Food provision
Onion	Pest control	Sp	Pest control
Onion	Easy to clean	E	Regulation of greenhouse gases
Spring barley	Biomass	T	Supply of nutrients for agroecosystem functioning
Phacelia	Beauty	E	Cultural
Phacelia	Soil structuring	T	Supply of nutrients for agroecosystem functioning
Phacelia	Soil structuring	T	Erosion control
Phacelia	Soil structuring	T	Regulation of water balance for crop development
Phacelia	Ground cover	T	Supply of nutrients for agroecosystem functioning
Phacelia	Pest control	T	Pest control
Phacelia	Pollination	T	Maintenance of associated biodiversity
Phacelia	Pollination	T	Maintenance of associated biodiversity
Phacelia	Pollination	T	Maintenance of associated biodiversity
Phacelia	Biomass	T	Supply of nutrients for agroecosystem functioning
Phacelia	Biomass	T	Supply of nutrients for agroecosystem functioning
Leek	Food supply	T	Food provision
Leek	Allelopathy	Sp	Weed control
Leek	Allelopathy	Sp	Pest control
Pea	Food	E	Food provision
Pea	Nitrogen supply to the soil	T	Supply of nutrients for agroecosystem functioning
Pea	Nitrogen supply to the soil	T	Supply of nutrients for agroecosystem functioning
Pea	Forage potential	T	Food provision
Potato	Gastronomy/Heritage	E	Cultural
Potato	Pest control	Sp	Pest control
Potato	Organic matter return	Sp	Supply of nutrients for agroecosystem functioning



Potato	Energy source	T	Food provision
Potato	Energy source	T	Food provision
Potato	Energy source	T	Food provision
Potato	Energy source	T	Food provision
Quinoa	Soil restitution	Sp	Supply of nutrients for agroecosystem functioning
Quinoa	Weed control	Sp	Weed control
Chinese radish	Aeration	E	Supply of nutrients for agroecosystem functioning
Chinese radish	Aeration	E	Regulation of water balance for crop development
Chinese radish	Aeration	E	Erosion control
Chinese radish	Minimal soil work	E	Regulation of greenhouse gases
Chinese radish	Minimal soil work	E	Erosion control
Chinese radish	Strong rooting	T	Regulation of water balance for crop development
Forage radish	Ground cover	E	Erosion control
Forage radish	Ground cover	E	Pest control
Forage radish	Ground cover	E	Maintenance of water quality
Forage radish	Soil restitution	E	Supply of nutrients for agroecosystem functioning
Forage radish	Allelopathy	E	Weed control
English ryegrass	Ground cover	T	Supply of nutrients for agroecosystem functioning
English ryegrass	Ground cover	T	Pest control
English ryegrass	Ground cover	T	Maintenance of water quality
English ryegrass	Ground cover	T	Erosion control
English ryegrass	Root biomass	T	Supply of nutrients for agroecosystem functioning
Sainfoin	Pollination	T	Maintenance of associated biodiversity
Sainfoin	Drought-adapted	E	Regulation of water balance for crop development
Sainfoin	Forage potential	Sp	Food provision
Sainfoin	Weed control	Sp	Weed control
Sainfoin	Nitrogen supply to the soil	T	Supply of nutrients for agroecosystem functioning
Buckwheat	Food	T	Food provision
Buckwheat	Weed control	T	Weed control
Buckwheat	Weed control	T	Weed control
Buckwheat	Weed control	T	Weed control
Buckwheat	Gastronomy/Heritage	E	Cultural
Buckwheat	Low input consumption	E	Maintenance of water quality
Buckwheat	Low input consumption	E	Regulation of greenhouse gases
Buckwheat	Low soil work requirement	Sp	Regulation of greenhouse gases
Rye	Deep root system	T	Supply of nutrients for agroecosystem functioning
Rye	Deep root system	T	Regulation of water balance for crop development

Rye	Ground cover	T	Supply of nutrients for agroecosystem functioning
Rye	Ground cover	T	Weed control
Rye	Ground cover	T	Maintenance of water quality
Rye	Ground cover	T	Erosion control
Forage sorghum	Leaching attenuation	E	Supply of nutrients for agroecosystem functioning
Forage sorghum	Leaching attenuation	E	Maintenance of water quality
Forage sorghum	Forage potential	E	Food provision
Sunflower	Pollination	T	Maintenance of associated biodiversity
Sunflower	Pollination	T	Maintenance of associated biodiversity
Sunflower	Food	T	Food provision
Sunflower	Food	T	Food provision
White clover	Perennial - cover	T	Supply of nutrients for agroecosystem functioning
White clover	Perennial - cover	T	Maintenance of water quality
White clover	Perennial - cover	T	Weed control
White clover	Perennial - cover	T	Erosion control
White clover	Perennial - cover	T	Supply of nutrients for agroecosystem functioning
White clover	Perennial - cover	T	Maintenance of water quality
White clover	Perennial - cover	T	Weed control
White clover	Perennial - cover	T	Erosion control
White clover	Surface roots	T	Supply of nutrients for agroecosystem functioning
White clover	Association with rapeseed	E	Supply of nutrients for agroecosystem functioning
Egyptian clover	Forage potential	E	Food provision
Egyptian clover	Nitrogen supply to the soil	T	Supply of nutrients for agroecosystem functioning
Crimson clover	Nitrogen supply to the soil	T	Supply of nutrients for agroecosystem functioning
Crimson clover	Forage potential	E	Food provision
Red clover	Nitrogen supply to the soil	T	Supply of nutrients for agroecosystem functioning
Red clover	Nitrogen supply to the soil	T	Supply of nutrients for agroecosystem functioning
Red clover	Forage potential	E	Food provision
Triticale	Forage potential	E	Food provision
Triticale	Biomass	T	Supply of nutrients for agroecosystem functioning
Vetch	Forage potential	E	Food provision
Vetch	Nitrogen supply to the soil	T	Supply of nutrients for agroecosystem functioning