

ASSAP Update and Water Quality Restoration

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Agricultural Sustainability Support and Advisory Programme (ASSAP)

Farming For Water Quality



An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine



An Roinn Tithíochta,
Rialtais Áitiúil agus Oidhreacht
Department of Housing,
Local Government and Heritage



What is the ASSAP?

- **Agricultural Sustainability Support and Advisory Programme**
- Focus is on water quality in 190 Priority Areas for Action (PAA)
- Provides free farm advice, confidential and acceptance is voluntary
- 30 Advisors - 20 Teagasc, 10 from Dairy Co-ops
- Work in collaboration with LAWPRO (Local Authority Waters Programme)
- Under the Water Framework Directive Ireland is required to have all waters at least at 'Good Status' by 2027 ★★★★★
- LAWPRO provide the catchment science, identify pressures and locations
- ASSAP advisor contact farmers offering service

ASSAP – Farm Assessment Issues

Farm Yard

Land Management

Nutrient Management

[illegible]

- Potential Issues = 46
- Total number of possible mitigation actions = 289

ASSAP Assessments

- 1810 Completed ASSAP Farm Assessments nationally to 31 December 2020 – *(Covid 19 impacted farm visits during 2020)*
- 391 follow up visits
- 96% of farmers engaged with the ASSAP advisors
- Issues identified - 10233
- Ave. number of issues identified per farm : 6
- Actions agreed 92%
- Dairy 31% of farms assessed
- Beef production 57% of farms assessed
- Sheep/Tillage/Other 12% of farm assessed
- Pressures identified in PAA's
 - P Loss (Diffuse) 31%
 - N Loss (Diffuse) 16%
 - Sedimentation 26%
 - Point Source Losses 16%
 - Toxicity & Pesticides 6%
 - Ammonium 5%



ASSAP Assessments

- Each issue identified on farms is assigned a risk

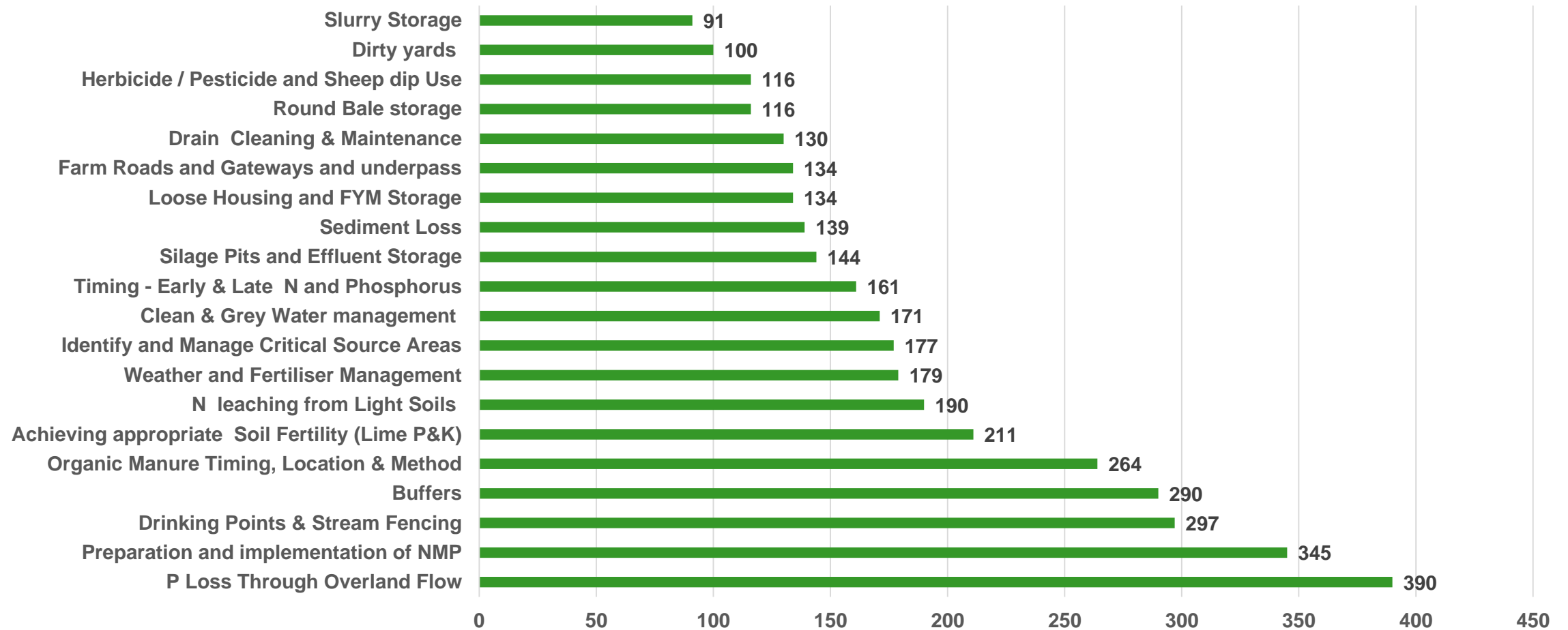
- » High Risk 44%
- » Moderate Risk 40%
- » Low Risk 16%

High	Issues that are likely to have a <u>high</u> impact on water quality
Moderate	Issues that are likely to have a <u>moderate</u> impact on water quality
Low	Issues that are likely to have a <u>low</u> impact on water quality

- Focus is on high risk issues and implementation of mitigation actions

20 most frequent issues identified – High Risk

20 most frequent High Risk issues account for 82% of total High Risk issues



ASSAP – Implementation of Mitigation Actions

Actions Reviewed	The total number of actions reviewed by the advisor
Not Started	The farmer has not started to implement the agreed mitigation action. E.g. fencing off a riparian margin
Not Proceeding	The farmer is not proceeding with implementing the agreed mitigation action
Commenced	The farmer has commenced implementation of the agreed mitigation action. E.g. has commenced fencing off a riparian margin but it is not finished
Complete	The farmer has completed the implementation of the agreed mitigation action. E.g. has finished fencing off a riparian margin
On-going	The implementation of the mitigation action is on-going meaning that it needs to be implemented on a year round basis. E.g. management of critical source areas (CSA's)

High Risk Issues - Implementation of Actions Agreed	Not started or proceeding	Commenced Complete or On-going
P Loss Through Overland Flow	21%	53%
Preparation and implementation of NMP	34%	51%
Buffers	18%	68%
Drinking Points & Stream Fencing	69%	31%
Organic Manure Timing, Location & Method	33%	51%
Achieving appropriate Soil Fertility (Lime P&K)	23%	67%
Clean & Grey Water management	41%	44%
Weather and Fertiliser Management	5%	84%
N leaching from Light Soils	27%	71%
Round Bale storage	52%	31%
Loose Housing and FYM Storage	70%	34%
Identify and Mange Critical Source Areas	21%	70%
Timing - Early & Late N and Phosphorus	22%	66%
Drain Cleaning & Maintenance	31%	59%
Farm Roads and Gateways and underpass	60%	22%
Fertiliser Type	69%	29%
Silage Pits and Effluent Storage	56%	28%
Herbicide / Pesticide and Sheep dip Use	16%	69%
Sediment Loss	51%	32%
Sloped Fields	22%	68%

ASSAP

- 5 most frequent high risk issues
- Issue identified, mitigation actions recommended and implementation of measures

	Mitigation Actions	Risk High	Risk High Agreed	Actions Reviewed	Not Started	Not Proceeding	Commenced	Complete	Ongoing
1	P Loss Through Overland Flow								
	Management of Critical Source Areas (CSA's)	200	190	145	44	2	36	9	54
	Riparian Buffers - Fenced/Unfenced	120	115	91	21	1	12	4	53
	In field grass buffers	76	72	52	7	0	10	3	32
	Establish field boundaries and hedges	28	27	18	5	0	1	3	9
	Implementation of Nutrient Management Plan	27	27	21	4	0	4	4	9
	Improved farm road/tracks design and location	22	21	11	6	0	2	1	2
	Prudent P use on Peat soils	8	7	5	0	0	0	0	5
	Alleviate compacted areas in fields	7	6	6	2	1	3	0	0
	No P on sensitive (CSA's) areas	5	4	4	2	0	0	0	2
	Additional storage for farm wastes required	4	4	4	1	0	0	0	3
	Other mitigation actions	25	24	14	6	1	1	0	2

	Mitigation Actions	Risk High	Risk High Agreed	Actions Reviewed	Not Started	Not Proceeding	Commenced	Complete	Ongoing
2	Preparation and implementation of NMP								
	Precision application of nutrients at correct rate	227	207	157	57	0	34	9	57
	Informing and educating farmers	140	129	121	50	1	20	15	35
	Use of straight fertilisers	25	24	24	13	0	8	1	2
	Avoid application at high risk times	23	23	21	8	0	6	0	7
	Avoid application at high risk places (CSA's)	8	8	8	3	0	0	1	4
3	Buffers								
	Adhere to buffer zones and safeguard zones	249	241	210	37	2	38	18	115
	Avoid application at high risk times	62	59	54	12	0	9	15	18
	Avoid application at high risk places	56	54	47	12	0	6	13	16
	Informing and educating farmers	44	44	41	12	0	10	10	9
	Riparian Buffers - Fenced/Unfenced	15	15	14	2	0	3	0	9
	In field grass buffers	11	11	8	0	0	2	1	5
	Other mitigation actions	13	13	8	3	0	1	0	1

	Mitigation Actions	Risk High	Risk High Agreed	Actions Reviewed	Not Started	Not Proceeding	Commenced	Complete	Ongoing
4	Drinking Points & Stream Fencing								
	Prevent livestock access to waters	270	208	202	123	14	25	21	19
	Informing and educating farmers	81	56	69	45	7	10	3	4
	Other mitigation actions	6	6	2	0	0	0	1	1
5	Organic Manure Timing, Location & Method								
	Avoid application at high risk times	170	162	134	46	0	19	11	58
	Avoid Application at high risk places	114	111	86	28	0	12	9	37
	Informing and educating farmers	85	81	80	40	2	20	12	6
	Adopt latest manure application techniques	65	56	49	23	2	16	3	5
	Precision application of nutrients at correct rate	48	45	29	7	1	7	4	10
	Other mitigation actions	32	30	28	10	0	12	2	4

Case Study: Dysart_010

LAWPRO Referrals for different locations in the Dysart_010:

- diffuse phosphate and sediment loss mainly from poorly draining pasture land adjacent to the main river channel (Critical Source Areas)
- access by livestock to the main river channel
- damage to the river bank
- water troughs and supplementary feeding locations impacting water quality
- non observance of buffer zones when applying organic and chemical fertilisers
- application of organic fertilisers at inappropriate times and locations
- soiled water run-off from farmyards



Issues and Implementation of Mitigation Actions for Dysart_010

Issue Identified	Mitigation Actions	High Risk Agreed	Actions Reviewed	Not Started	Not Proceeding	Commenced	Complete	On going
P Loss Through Overland Flow	Riparian Buffers - Fenced/Unfenced	19	14	0	0	1	0	13
Buffers	Adhere to buffer zones and safeguard zones	18	12	0	0	0	0	12
Drain Cleaning & Maintenance	Informing and educating farmers	12	10	0	0	0	0	10
Drinking Points & Stream Fencing	Prevent livestock access to waters	11	9	3	1	2	1	2
Weather and Fertiliser Management	Riparian buffers - fenced/unfenced	11	8	0	0	0	0	8
Herbicide / Pesticide and Sheep dip Use	Adhere to buffer zones and safeguard zones	9	6	0	0	0	0	6
Silage Pits and Effluent Storage	Improved management of collection and storage of farm wastes	4	3	0	0	0	1	2
Sediment Loss	Riparian Buffers - Fenced/Unfenced	4	4	1	0	0	0	3
Loose Housing and FYM Storage	Additional storage for farm wastes required	3	1	1	0	0	0	0
Organic Manure Timing, Location & Method	Avoid Application at high risk places	3	3	1	0	0	1	1

Summary on ASSAP

- Covid 19 impacted ASSAP farm visits in 2020 (and first quarter of 2021)
- Very strong engagement by farmers
- Pressures and Issues are consistent
- Mitigation actions need to be implemented and maintained to improve water quality
- Positive implementation but greater levels required
- ASSAP Interim Report #2 – due to be published shortly