Irish dairy cow numbers have increased by 33% (342,500) since 2010 to over 1.4 million. As a result the workload on Irish dairy farms has markedly increased, and is compounded by inadequate facilities on some farms, limited experience of large-scale dairy farming (<5% of farmers were milking >100 cows in 2005; Kelly *et al*., 2017), and recent extreme weather events (Storm Ophelia in 2017, Storm Emma in spring 2018 and drought conditions in summer 2018). Spring 2018 created challenges for farmers due to poor grass growth, excessive rainfall, snow and inadequate feed availability. These challenges, combined with the workload associated with compact calving, resulted in increased stress and workload for farmers, their families and employees. To understand the scale and depth of the issues faced by farmers this spring, a survey of dairy farmers was completed.

**Survey**

In May, Teagasc dairy advisors completed a survey consisting of 20 questions with their dairy discussion groups. To obtain robust information allowing little room for inappropriate interpretation, 17 questions were close ended and three questions were open ended. In total, 349 responses were collected from 37 discussion groups in 12 counties. The collected data was transcribed into SurveyMonkey and analysed using descriptive statistics. Open-ended questions were analysed using thematic analysis. The average number of dairy cows calved in spring on each farm was 160 (range: 8-740). The average area of land on the milking platform was 54ha (range: 5-260ha). Although the sample was not nationally representative (participants tended to have a larger herd size than the national average), the results can provide valuable insight into spring 2018. The main challenges that caused farmers stress were:

- weather;
- workload and labour; and,
- feed issues.

All three issues are interlinked and the weather is critical because it impacted on both workload and feed, with the severity of the impact varying between farms. A total of 41% of farmers purchased additional hay/silage this spring and 55% were concerned about conserving enough silage for the coming winter.

**Facilities**

Farmers were asked to self-assess the facilities on their farm. Calving, calf rearing and slurry storage facilities were considered to be adequate on 73% of farms. Farmers had on average 17 units in the milking parlour and were milking nine rows of cows. On average, there were 154 cubicle spaces for cows (0.97 cubicles/cow) while 33% of farmers had fewer than 0.8 cubicles/cow. As a result of the conditions experienced this spring, 34% of farmers were planning on investing in facilities and infrastructure.

**Labour-saving practices**

Only eight farmers did not implement any labour-saving practices, whereas 341 (98%) farmers implemented one or more practice. Labour-saving practices utilised on farm this spring are illustrated in Figure 1. Using a contractor to spread slurry was the most commonly used practice (74%), while contract feeding was the least (6%). One-third of farmers were using once-a-day milking. A recent study reported that the most labour-efficient farmers were milking once a day for four weeks in spring (Deming *et al*., 2018). In all, 90% of farmers agreed that there is scope for improvement of work practices and organisation on farms, indicating that farmers recognise the need for change.

**Farmer and employee workload**

On average, farmers estimated that they worked 86 hours per week (12.4 hours per day) and took less than one day off during March. Working long hours may negatively impact on health and
safety, as the literature indicates that the rate of accidents increases when people work more than 48 hours a week. On average, in addition to the farmer, there were two people working on each farm and these comprised one family member, 0.4 full-time employees, 0.5 part-time employees and 0.2 students. Family members worked on average seven hours per day for six days per week, while full-time employees worked 9.6 hours per day for six days. When asked to identify the best thing they did this spring to cope with the workload and weather challenges, taking on extra help was mentioned by 20% of farmers and was the most frequently occurring theme. Farmers recognised the importance of having enough people and excellent employees on farms. Some responses included: “had excellent staff”; “took on a part-time worker”; and, “had enough help”.

**Hiring staff**
Half of the responding farmers were not looking to hire employees this spring. For the 50% of farmers that were seeking to hire additional labour, their responses to a question regarding labour availability in spring 2018 are outlined in **Figure 2**. A total of 58% found it difficult or very difficult to find help, while 14% were unable to hire someone. Some 15% are planning to hire extra labour for spring 2019. Given the challenging labour market, farmers should also improve farm facilities and adjust work practices to reduce the requirement for hired labour. These changes will also make the farm a more attractive place to work for any potential future employees.

**Conclusion**
Along with the weather, inadequate facilities, animal health issues and underutilisation of labour-saving techniques resulted in increased workload on farms. One-third of farmers are planning on making investments in facilities and infrastructure. Farmers should be cognisant of labour and potential future changes or expansions when making any on-farm investments. To reduce the workload on farm during spring, farmers should adopt more labour-saving practices to reduce the requirement for hired labour.

**Acknowledgements**
The author would like to thank the dairy advisors who conducted the survey with their discussion groups. The author acknowledges funding from the Dairy Levy Trust.

**References**

**Authors**
Marion Beecher
Livestock Systems Department, Teagasc Animal & Grassland Research and Innovation Programme, Moorepark, Fermoy, Co. Cork
Correspondence: marion.beecher@teagasc.ie

Paidi Kelly
Livestock Systems Department, Teagasc Animal & Grassland Research and Innovation Programme, Moorepark, Fermoy, Co. Cork