# Scenarios

# John Peters - Scenario

John Peters wakes up at 5:30 in the morning. He prepares a quick meal before setting to work. Currently, he is preparing the soil for next year's harvest, and today is checking the soil's acidity. He visits several points in the field – the four corners and an area roughly at the centre – to check their acidity. This is very time-consuming, as using a vehicle would seriously disturb the soil.

The acidity of the field seems to be a little on the high side, although still acceptable. Just to be safe, John heads back to the farmhouse to get some lime to distribute around the field. Again, this takes a long time, as John must distribute lime across the entire field. By the time this work is over, it is past midday; unfortunately, John cannot begin spreading fertiliser just yet as his fertiliser spreader is not working correctly. The problem is not severe, but he expects that it will take the remainder of the day to fix.

Before going to bed for the night, John makes a note to check the acidity levels of the soil in the morning to ensure that they have returned to normal levels.

**Ethan Collins - Industrial Farming Scenario**

Ethan starts the day early, arriving at the central warehouse of the farm, that acts as both as storage as processing area for the produce, as well as an office for workers. By 7:00 he is out in the fields, viewing the sensors for moisture content in the soil, to ensure the strawberry plants are well nourished for optimal growth and yield. He writes the measurements down, to enter into his spreadsheet once he returns to his office. He also checks the water levels manually by checking the depth of moisture levels with his finger, to verify that the sensors' values are approximately correct.

It seems the soil is beginning to get a little dry in fields 3 and 4. Ethan heads to the drip irrigation control system and activates the watering system for F3 and F4. He has to calculate how long to keep the water running before deactivating the system, as over-watering the strawberry plants can lead to fungal infections causing the plant roots to rot. He also has to ensure the irrigation system is releasing water at the correct pressure, ensuring the soil and roots are moistened but the strawberries themselves kept dry. Unfortunately, this takes a degree of guesswork as various unpredictable factors, such as temperature, can dramatically change the required duration.

Ethan estimates that he should stop the irrigation system at around 15:00, so he sets an alarm for that time in case he forgets. While he waits to do that, he updates his spreadsheet and sends a quick situation report to upper management telling them that he is moistening the soil.

# Lucy Boggs - Monday Morning Scenario

Lucy arrives at her office at 9:00 on Monday morning, starting the day by checking her email. She then looks at tasks to accomplish in the new week, including contacting several farmers for data and updates that may affect the predicted quantity of deliverable fruit.

She attends a 9:30 meeting where she liaises with her colleagues, discussing and collating data gathered from the various Wiltshire farms that they manage. After the meeting, she is sent an updated set of rainfall figures via email for a set of fields she is monitoring. Frustratingly, the farmers seem to delight in sending her measurements in different units, and so she must convert them herself (which she does with the help of a set of Excel formulae).

Lucy then updates the soil spreadsheets with new data, to see if the Wiltshire farms will be as highly suited to potato farming as suggested in the Friday Briefing. She was not quite sure how the formatting macros worked, but felt comfortable using them within the Data Management software. The graphs showed, quite clearly, that the 9 square kilometre farmland available in Wiltshire would be an excellent location for the potato farms that Crawlers Crisps were hoping to expand with. Lucy pencils in a meeting with the Crawlers Group to let them know of the developments.

The afternoon was spent organising deliveries from farms, several of which had delays with harvesting and as a result, led to issues with the packing of foods. The weekly total for strawberries sent to the supermarket warehouses would be lower than expected and predictions for this quarter would have to be adjusted too, Lucy thought. Looking through the average production rate per month for all farms that grew soft fruit confirmed this. She spent the rest of the day calling smaller family farms to gather updated data for fruit yield and moisture content, hoping the recalculations would be a little more reliable with more recent data.