

Engineering and Maintenance Department

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The Engineering and Maintenance Department offers a technical design and maintenance service throughout the Institute. Preservation of Institute assets is of paramount importance and careful, skilled inspections are frequently carried out. Corrective maintenance work takes place to ensure the expected performance and life of equipment, vehicle, plant or building is achieved. The Department is divided into sections that specialise in a variety of engineering disciplines such as electrical, electronic, refrigeration, heating and mechanical engineering. It provides an engineering design and maintenance service to cover scientific and ancillary equipment, and building services, including heating, ventilation and air conditioning. There is also a farm workshop section providing maintenance facilities for a substantial fleet of tractors and agricultural machinery. The Department provides a general stores facility and a cleaning and security service. The workshops are generally well equipped to deal with the maintenance tasks assigned to them.

The rapidly changing and wide ranging scientific aims of the Institute ensure that laboratory alterations will always be a part of the Engineering Department's work. With this in mind, services to laboratories must be as flexible and adaptable as possible. Over the last few years, systems have been introduced which allow the Department to respond quickly and efficiently when changes are necessary, thus reducing laboratory disruption to a minimum. Scientists can now confidently bring new and diverse projects to the Institute knowing that a team is on hand to ensure the facilities will meet whatever requirement they may have.

During 1998, several areas of the Institute were refurbished to either enable new and expanded areas of work to be carried out or to simply

improve the existing facilities. The main project undertaken this year centred around Building S.

Following a realignment of the various Scientific Units and Departments within the Institute certain Units found themselves located in different buildings to their new Departments. To overcome this, a plan of action was drawn up to solve not only this problem but also a general one throughout the Institute of insufficient laboratory and office space. The main element of the plan was to refurbish Building S, which was originally used for crops handling and storage.

During 1995, part of the building had been converted into a suite of laboratories for use by the Spectroscopy Section. Last year, the rest of the building was earmarked to accommodate the Institute's Chemistry Department and these areas have been or are now being converted into offices and laboratories. Part of the project involves the conversion of the loft area to form fully equipped and functional laboratories covering 215 m² of floor space to house the Institute's lipid research and the MRS Lipid Analysis Unit.

The majority of the work involved in this project has been undertaken by the staff within Engineering and Maintenance and includes the Electrical and Mechanical Services work, the telephone and IT network cabling, all joinery work including fitting out laboratories, and all painting works.

Once staff in the Chemistry Department are relocated, the space they vacate will be filled by various sections within the Cellular and Environmental Physiology Department and enable them to be housed together. This move in turn will free up sufficient space to allow all the various sections within the Soft Fruits & Perennial Crops Department to be accommodated within the same wing of another building.

Again, any changes or additions to the existing accommodation to allow the various sections to move will be undertaken by the Engineering and Maintenance staff.

The Department is also responsible for negotiating utility contracts with electricity, gas, water and telephone companies and successful negotiations in previous years have now made further savings in these areas



difficult. The electricity unit cost was held at around the same level as last year's but market forces resulted in our gas costs rising. Telephone call charges were reduced but water charges have escalated due to a combination of increased unit costs and various forms of relief being withdrawn. Costs in this area are due to increase far beyond the rate of inflation and although water usage will again be addressed, costs will inevitably rise.

The Department monitors usage and efficiency of all the four utilities and although there will always be room for improvement, levels of use are now unlikely to fall significantly without major capital investment.

In recent years, ever increasing and more demanding legislation has had an effect on the work and the working practices of the Department. The Institute must, and does, provide a safe working environment for its employees and visitors and, at the same time, endeavour to stay clear of litigation, but the cost of doing so is increasing annually. Much of the work to ensure their safety goes unseen by the majority of staff and often there are no tangible benefits to be gained from it. With the severe financial difficulties being faced by the Institute, it would be easy to become complacent in this area and it is to the Institute's credit that it continues to find the necessary resources to fund this properly.



We are also educating scientific staff into understanding that legislation now clearly defines areas of work, such as those associated with electrical and gas systems and equipment, that they cannot enter into without undermining the Institute's legal position. It is sometimes difficult for non-technical staff to understand that simple tasks such as changing a 13 amp plug or fuse must always be carried out by the relevant trained person within the organisation.

More and more time, effort and resources are being spent to cope with the 'what if' scenario, all of which add to the ever increasing workload of the Engineering and Maintenance Department.