

Job Description

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|-------------------|-----------------------------|------------------------|------------------------------|
| Job title | Pathology Technician | Location - base | Park Farm, Histon, Cambridge |
| Team | | Job group | Technical |
| Department | Plant Pathology | Post ref. | SV/A1377 |
| Reports to | Principal Pathologist | Line manages | N/A |

1. Team overview

The Field Pathology Team is focused on delivering high quality field trials and research across a range of cereal and broadleaved crops and their respective pathogens and comprises 8 technical staff managed by two research leaders. The team have access to extensive walk-in growth room and glasshouse facilities, laboratories, and a range of field trial sites across Cambridgeshire as well as a site in Norfolk. The Field Pathology Team is an integral part of the Plant Pathology Department consisting of 21 research staff plus several PhD students and visiting workers who deliver a wide range of levy (AHDB, Defra/APHA), commercial, and UKRI projects.

2. Role purpose

The postholder will assist with:

- Establishing and maintaining specialist pathology field, growth room (GR), glasshouse, and laboratory-based trials in collaboration with other staff at NIAB
- Lab-based isolation of plant pathogen isolates
- Producing, preparing, and applying pathogen inoculum to plants
- Assessing trials, including disease scoring, and processing results, collating data
- Carrying out tests with plant pathogens in glasshouses and controlled environments
- Carrying out research projects

The work will involve several broadleaved and cereal crop plant species and different pathogens. Planning own workloads within a set of project requirements will be an important feature of the post.

The role is varied, but applicants must have an aptitude for field and GR experimentation.

3. Financial authority/responsibility

None

4. Key relationships

Internal Line manager, HoD, other Field Pathology Team members, other Plant Pathology Department members, Cambridge trials team manager and members, Seed Handling Unit (SHU) manger and members.

External: Project partners and collaborators; visitors to trials (funders, breeders).

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|-------------|----------------|----------|--|
| Date issued | 21.05.2024 | Page | 1 |
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5. Key tasks/responsibilities

| | Approx. % of time |
|--|-------------------|
| Assisting with pathology trials in the field, growth rooms, glasshouses, and the lab including tasks such as <ul style="list-style-type: none"> • Planning and setting-up trials • Production of pathogen inoculum • Inoculating plants • Scoring diseases • Isolating pathogens from plant tissues • Preparing solid and liquid media for pathogen growth and multiplication • Raising plants from seed • Maintaining healthy plants for experiments • Applying agrochemicals • Assisting with developing new tests and services which may lead to new business opportunities • Assisting with other experimental tasks | 80 |
| Data handling and collation <ul style="list-style-type: none"> • Collates and help interpret experimental data • Helps produce reports and provide advice to funders, and customers based on the analysis of the data • Contributes to project meetings as required | 10 |
| Other <ul style="list-style-type: none"> • Helps arrange and oversee repair and regular servicing of growth rooms and relevant equipment (incubators, fridge/freezers, other) • Helps maintain pathogen collections • Helps maintain safe and clean work environment • Helps prepare and demonstrate posters and other exhibits at knowledge exchange/ knowledge transfer events • Helps guide visiting workers and students in relevant techniques • Any other duties as required | 10 |

6. Working conditions

- Work is split between laboratory, field, and office (bench-and desk-based activities), which varies according to the season.
- Due to peaks in workload, it may not be possible to take holiday at certain times of the year unless pre-arranged with sufficient notice.
- Long hours and weekend working are sometimes necessary at peak times. Overtime and TOIL are available. Occasional overnight absences from Cambridge base may be required.
- Regular exposure to plant material and plant pathogens; exposure to pollen and insects during fieldwork.
- Managed exposure to chemicals e.g. seedling treated with growth inhibiting substances. Occasional use of standard and experimental agrochemicals using hand-held equipment. Full training will be provided as needed.
- Regular Visual Display Unit usage.
- Lone working in growth rooms, glasshouse, and field.

Person Specification

| Criteria | Essential | Desirable |
|--|-----------|-----------|
| Qualifications | | |
| BSc in Plant Pathology or equivalent qualifications/experience | x | |
| Full current driving licence for a car/light van/4WD | x | |
| Knowledge and skills | | |
| Knowledge of host-pathogen interactions | | x |
| Basic understanding of UK arable crop production systems | x | |
| Good verbal and written communication skills | | x |
| Excellent interpersonal skills | | x |
| Competency in Microsoft Office 365 applications – Outlook, Word, Excel, SharePoint, PowerPoint | x | |
| Strong numeracy and data handling skills | | x |
| Ability to prioritise and work to deadlines, even when under pressure | x | |
| Good analytical and problem-solving skills | | x |
| Experience | | |
| Some experience of plant pathology, particularly culturing fungal or oomycete pathogens | x | |
| Some experience inoculating plants, and general ability to recognise disease symptoms | x | |
| Some postgraduate plant/crop related work experience | | x |
| Some experience with knowledge transfer/ knowledge exchange activities | | x |
| Attributes | | |
| Accuracy and attention to detail | x | |
| Evidence of commitment to personal development and willing to learn new skills | x | |
| Collaborative and open-minded regarding science | x | |
| Flexibility – able to work alone and as part of a team | | x |
| Proactive and self-motivated | | x |