



The PIPAH Study Newsletter

January 2025



Hello and welcome to our annual Newsletter!

This is sent to all of our participants to provide you with an update on how the study is going and the work we have coming up.

I would like to start by saying a huge thank you to everyone who takes part. We could not do any of this without you, and we appreciate the time and effort you take to complete our questionnaires. We have provided you with a summary of the latest questionnaire many of you completed for us last January 2024 – thank you to everyone who responded.

We value the feedback you provide, whether that is by adding comments to our questionnaires, contacting us directly or speaking to us at the annual Cereals arable event. So, in this newsletter, we have taken the opportunity to address some of the common questions we get asked. I hope you find this helpful.

The PIPAH Study has been involved in something called the IMPRESS project for the last few years. This has now come to an end. Kate Jones, analytical chemist from HSE's Science and Research Centre and researcher on the IMPRESS project, has provided a summary of the results. I am really pleased the PIPAH Study was able to help with this research. Working with others in this way is important in making the best use of the valuable information we have gathered, and I'm grateful to all of our members who were able to take part.

I would like to end my introduction with a request for your help. We would like to have a group of PIPAH members we can contact if we have new documents, such as new questionnaires, we want to test before sending them to everyone. There's more information in the newsletter if you think you might be interested in helping.

I hope you find the newsletter interesting. If you have any questions or comments, please feel free to contact the study team using the details on the back page of this newsletter. Thank you again for your continued help and support.



Many thanks,

Gillian Nicholls

on behalf of the PIPAH study team



Why do we need the PIPAH study?

The use of pesticides is very important to our lives in many ways, and we must ensure that when they are used, they are used safely. The current evidence suggests today's pesticides pose no unacceptable risk to people's health when used properly. But it is important to monitor this and build on the knowledge and information currently available.

There are systems in place to record ill health caused by pesticides, but these tend to capture the more immediate cases caused by one-off incidents from over exposure to the chemical. It can be challenging to determine if ill health has resulted from long-term low-level exposures. This is where the PIPAH study comes in. We are interested in whether there are any patterns in using pesticides for work and long-term health.

Due to the long-term nature of the study, we are not sure what questions we may need to help answer in the future. This is why we gather information on a wide range of health issues together with your pesticide use. Over time, this helps us to build a picture of pesticide users as a group. This means we will be able to contribute to any discussions about the possible health impacts of pesticide use, as they arise.

Cereals 2024

The PIPAH team were very pleased to once again attend the annual Cereals arable event in June 2024. This time it was at Bygrave Woods at Newnham Farm, Hertfordshire. It's great to be able to speak to our participants, and potential participants, in person. We always receive valuable feedback, some of which has helped to shape the contents of this newsletter. We are already looking forward to Cereals 2025, which will be at Roy Ward Farms, Lincolnshire.

Please come and say hello if you attend.

www.cerealsevent.co.uk



Belinda (left) and Gillian (right) ready for action at Cereals 2024. Our 'new face', Sam, is behind the camera.

Retired or no longer spraying? Your information is still important to us

"I'm now retired, so I won't be much use to you I'm afraid"

"I'm no longer working with pesticides. Can I still take part?"

We often get comments like this when we send out our questionnaires. If you are retired or no longer working with pesticides, we understand why you might think your information is no longer helpful. But this is not true, and your participation is still important to the success of the study.

The PIPAH Study is interested in the long-term health of its participants, and so it's really important to be able to continue to ask you about your health as you get older, even if you have stopped working with pesticides.

If you have told us that you are retired or no longer working with pesticides, then we will only send you questionnaires that are relevant to you. In fact, this year's questionnaire focusses on pesticide application equipment and controls, and so this has not been sent to people who are retired or no longer work with pesticides.

The questionnaires always ask about your work status, so there is no need to contact us separately to tell us if you are newly retired or have recently stopped working with pesticides.

Do you want to leave the study? You have options

"Please remove me from mailing list"

"I no longer want to take part"

The PIPAH Study is completely voluntary, and you can leave the study at any time and without giving us a reason by contacting the study team. However, you can choose which parts of the study you would like to opt-out from.

There are three options available to you:

Option 1	No further contact We will <u>no longer</u> contact you with questionnaires, newsletters or other requests. We will <u>continue</u> to use the information you have already provided in new analyses and <u>continue</u> to obtain information about your health from central NHS bodies, in line with your original consent.
Option 2	No further contact or use of health data We will <u>no longer</u> contact you with questionnaires, newsletters or other requests. We will <u>no longer</u> obtain and use information about your health from central NHS bodies. We will <u>continue</u> to use the information you have already provided in new analyses.
Option 3	Full opt-out – no new use of your data We will <u>no longer</u> contact you with questionnaires, newsletters or other requests. We will <u>no longer</u> obtain and use information about your health from central NHS bodies. We will <u>no longer</u> use the information you have already provided in new analyses. We will keep a simple record about you on our system so that we know not to contact you.

If your wishes are not clear from your request, the study team may contact you to ask but we will never try to talk you into staying in the study if you want to leave.

Spreading the word

The PIPAH Study appeared in the Health & Safety Executive's (HSE's) 2024 Annual Science Review. This review showcases how HSE uses science and evidence to protect people and places. A presentation featuring five case studies, including the PIPAH study, is available to view on YouTube by using the shortened web address below. The 5 minute presentation on the PIPAH Study starts at 29:45.

https://bit.ly/PIPAH2024_ScienceReview

Gillian Nicholls took part in the 'BASIS Agronomy Matters' podcast. The topic was 'Health and Safety in Agriculture', with the podcast featuring the PIPAH Study and the Farm Safety Foundation (Yellow Wellies). You can listen to the podcast online on Spotify by using the shortened web address below. The PIPAH Study starts at 23:27.

<https://bit.ly/PIPAH2024podcast>

New faces

Sam Hewitt joined the PIPAH data management team last January. He started just as the January 2024 questionnaires were sent out and so had to get up-to-speed quickly to help process all of the questionnaires as they came in. Some of you may also have spotted Sam at Cereals 2024; although he managed to avoid all of our photographs. Sam says: *"Working on the PIPAH data management team has been very fulfilling. It's a good feeling to know that we're making a difference by monitoring pesticide users' health, and the work I do allows that to happen."*

'Seun Anjorin joined us in April 2024 and has been working mainly on our sister study, the Pesticide Users' Health Study, looking at how we can make better use of the pesticide information we have gathered. More recently, 'Seun has also been helping to check and catalogue all of the valuable PIPAH data we have gathered.



Welcome to the team both of you.

You can find out more about the Pesticide Users' Health Study here:

www.solutions.hse.gov.uk/resources/major-projects/puhs

Would you like to help test our questionnaires?

PIPAH is a unique study and we are often developing our own questionnaires. We try to use questions that have already been used in other studies, but this is not always possible or they may not be quite right for our participants. We would like to be able to ask some of you to test our questionnaires before we use them. We will not need to do this every year and we cannot say when in the year we will be in touch, but we would contact you (either by post or email) with a questionnaire to test and a short feedback form. Each time, you will be able to choose whether you want to respond or not.

If you would like to volunteer to help test questionnaires in the future, please contact the PIPAH team using the details on the back page.

PIPAH participants help with research to improve how pesticide exposure is measured in health studies (the IMPRESS study)

The Health and Safety Executive recently completed a project looking at ways to improve how pesticide exposure is measured for health studies.

Pesticides have previously been linked to various health effects. However, determining if it was the pesticide exposure itself that caused the effect, or something else, is often limited by poor exposure data. Typically, studies rely on people remembering what they have been exposed to (often over a long working lifetime of 20 years or more), or they make assumptions based on job role. This study aimed to look at the different approaches used to estimate pesticide exposure, to make suggestions and improve how this can be done in the future.

The work was led by the Institute of Occupational Medicine (based in Edinburgh), with the help of HSE, the University of Manchester, and Utrecht University (The Netherlands). The project was funded by CropLife Europe.

The project included a number of stages. First, we looked at how previous studies had estimated the pesticide exposure of workers. This showed that over 80% of studies used indirect methods such as self-reported questionnaires (40%), job titles or employment histories. Given the reliance on questionnaire data, we then looked at how reliable the data might be. To do this, we asked participants already taking part in studies (including the PIPAH participants) to complete a questionnaire they had already completed in the past. This looked at how well participants could remember their pesticide use over various time periods from 2 years to 12+ years. This included participants in both the UK and Uganda. The UK data showed that the ability to remember some details got worse with time. For example, there was a tendency to overestimate total years or hours per year worked. In general, providing estimates for values that were less intuitive (e.g., hours per year instead of hours per week) were less reliable after a long period of time had passed.

Next, we collected urine samples from pesticide workers in the UK (again, PIPAH participants), Uganda and Malaysia. These samples were tested for some of the pesticides used on the day of collection. The sample collection showed how workers use a wide range of pesticides. Many workers will use several different products in the same day, with up to seven different active ingredients being reported by users in a single day. In the UK, glyphosate was the most commonly used pesticide on the day of sampling, although synthetic pyrethroids were also reported. Urine sample testing showed that while exposure to these pesticides was detected, levels were well within the Acceptable Daily Intake criteria.



Our urine sample data was also used to compare different ways of measuring exposure (from simple “yes/no pesticide usage” to mathematical descriptions of exposure) and how they might affect the results of health studies. One study (in Uganda) looked at neurobehavioural health; this showed that the results were similar when using the different exposure measures, except when the questionnaire was repeated two years later. This showed that a worker’s ability to remember their pesticide usage can alter the results from health studies. Another study (also in Uganda) looked at self-reported exposure and urine levels when assessing acute sleep problems. This showed that, on their own, self-reported exposure and urine levels both gave similar results, but estimating average urine levels based on both factors together improved the exposure assessment. This highlights the fact that urine sampling only covers a day or two of exposure so either there needs to be multiple testing over time, or levels could be estimated over time. Another finding from this work is that the usefulness of different pesticide exposure measures varies depending on the health outcome of interest.

The study has also investigated the possible impacts of different ways of assessing past pesticide exposure. It has shown that sometimes simple assessments are sufficient but also highlighted improvements for use in future studies.

The IMPRESS team would like to thank the PIPAH participants who took part in this study, both the questionnaire and the urine sampling. Your involvement has highlighted some interesting findings that will help future studies to be better designed and give more definitive answers when assessing whether using pesticides leads to any health effects.

Please visit the project website for further information: www.impress-project.org

Kate Jones
Analytical Chemist, HSE’s Science and Research Centre



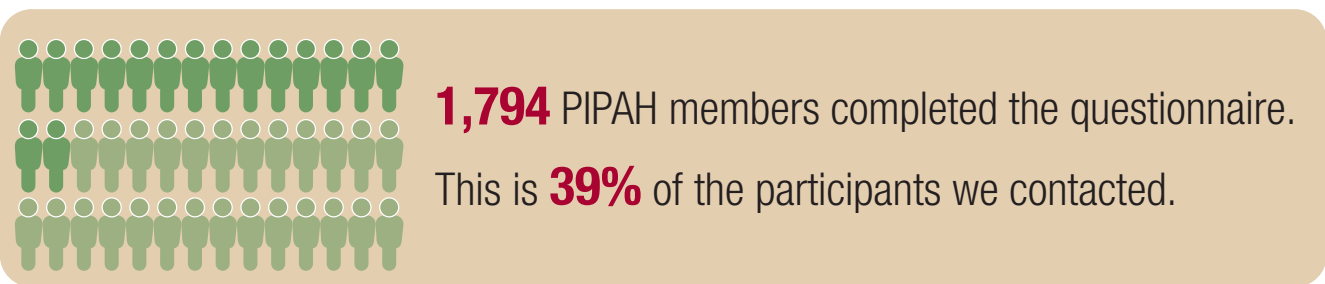
PIPAH study members: Then and now

When you joined the PIPAH study, you completed a questionnaire that asked about your job, health, diet and lifestyle. These things can change over time, and it is important we keep this information up-to-date. In January 2024, we invited you to complete a questionnaire that updated this information. We thought it would be interesting to see how our PIPAH members have changed since most started in the study back in 2013/14.

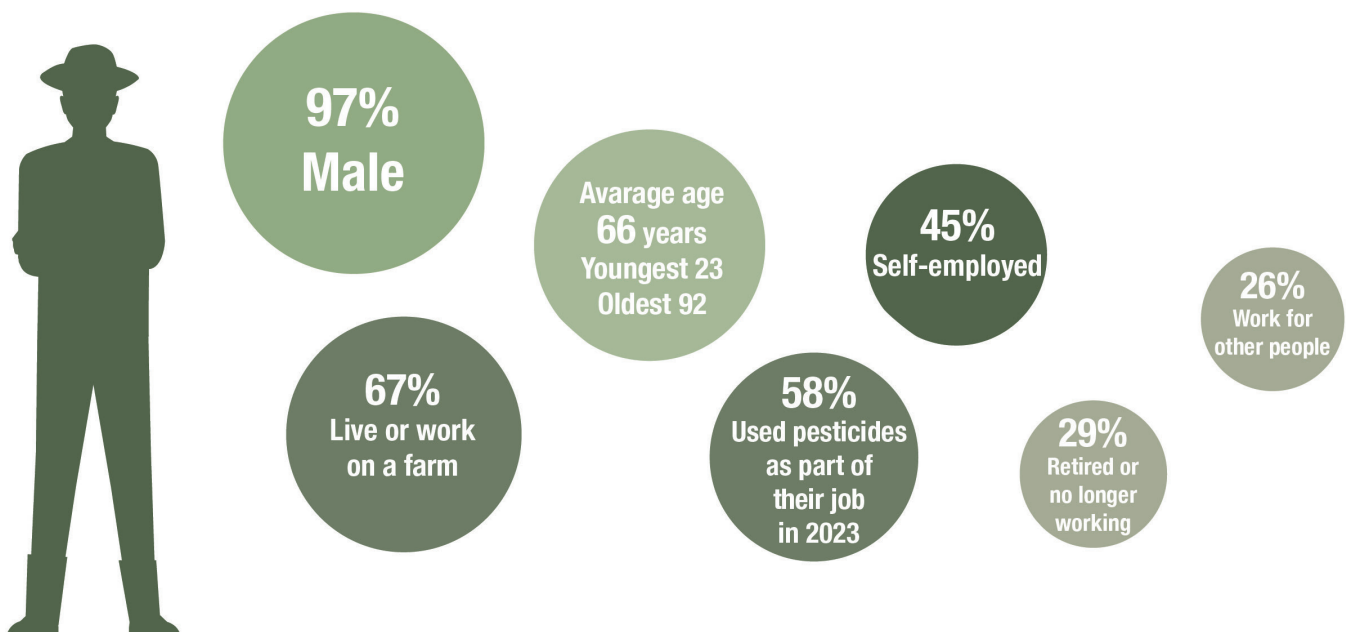
Where possible, we have also provided national figures so you can see how you differ from the general population. Often the national figures refer to the whole population, whereas the PIPAH study is an adult population with a high number of men. Therefore, some of the national figures may not be directly comparable but they will still give a general impression. We have used data from England since that is where most participants are from¹.

¹ Health Survey for England, available here:

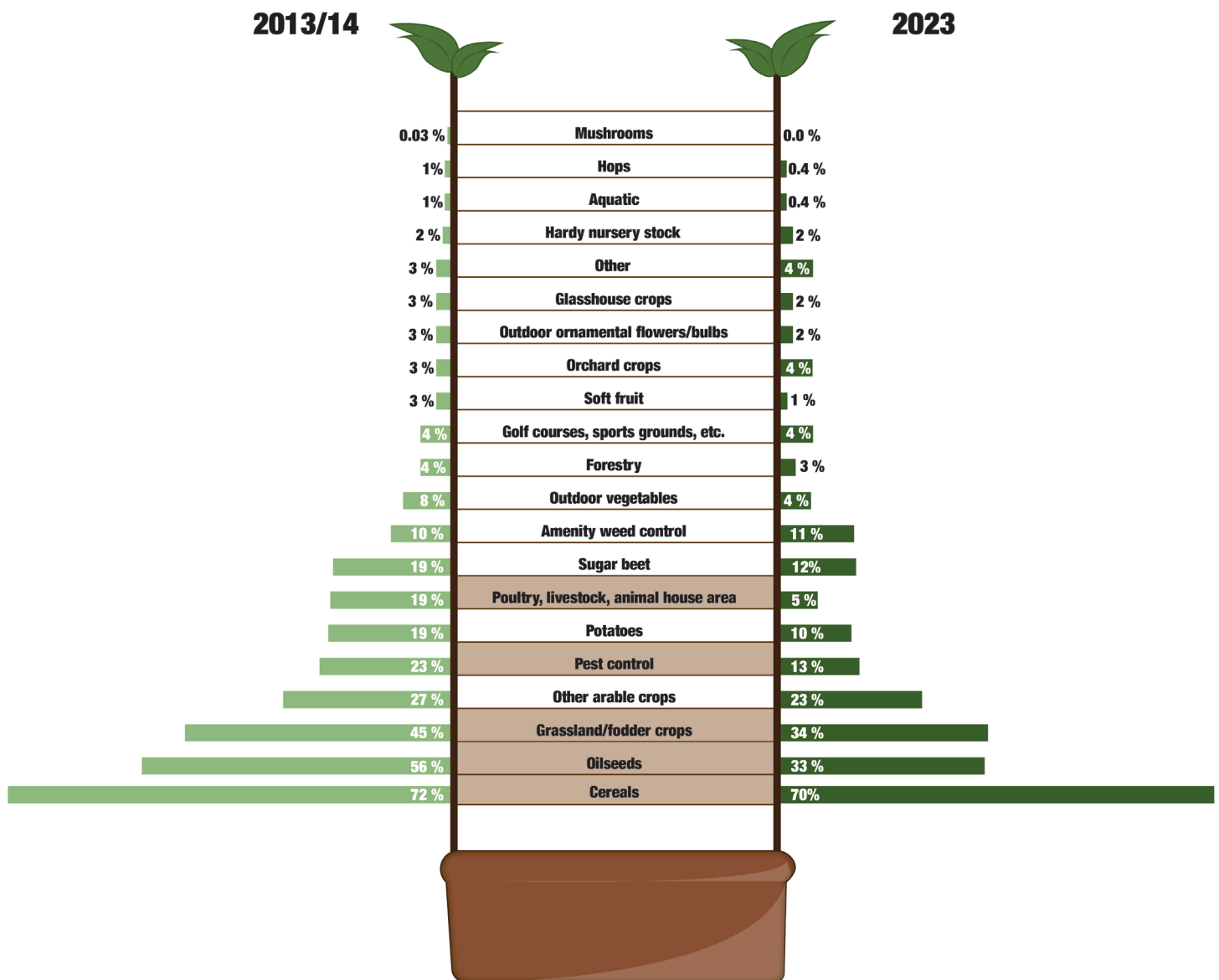
www.digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england



The participants who responded were...



Areas of pesticide work: then and now



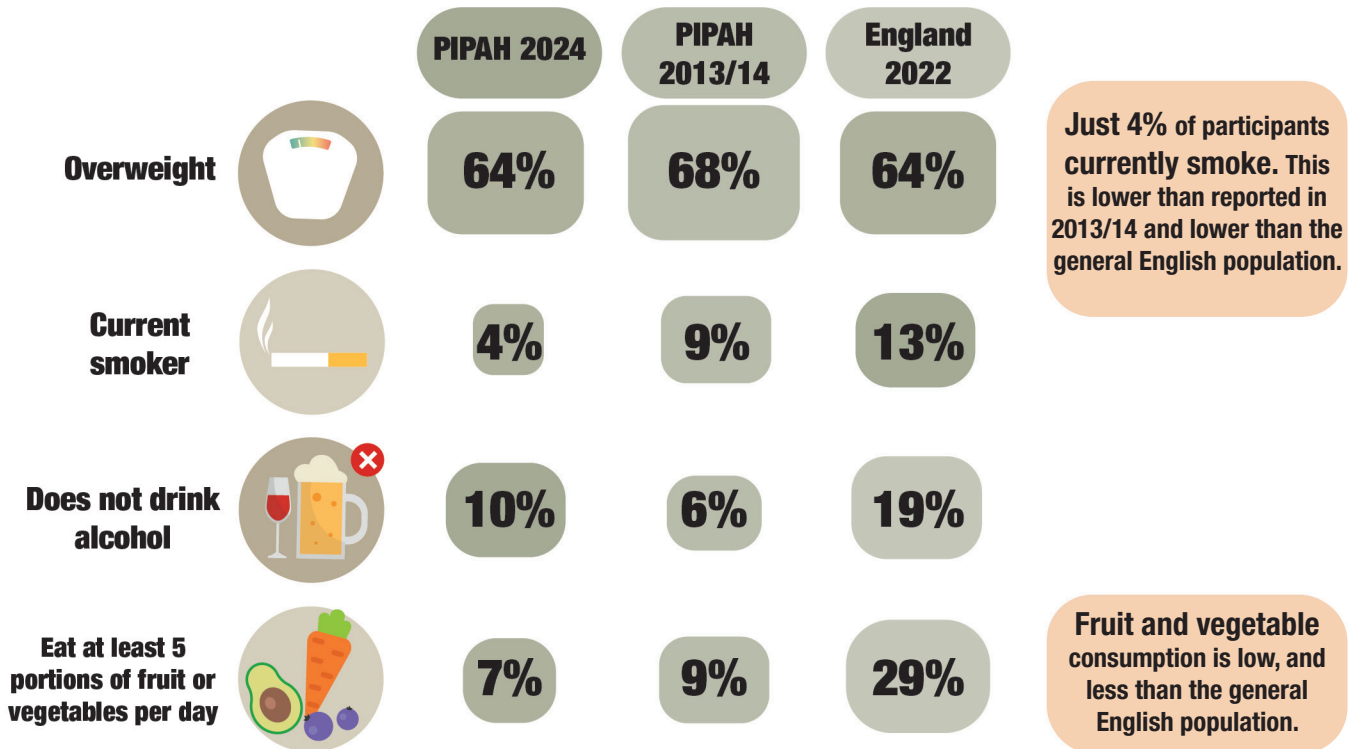
Of those working with pesticides, **Cereals** is still the most reported area of pesticide work in 2023.

The biggest reduction in reported pesticide work since 2013/14 is for **oilseeds**.

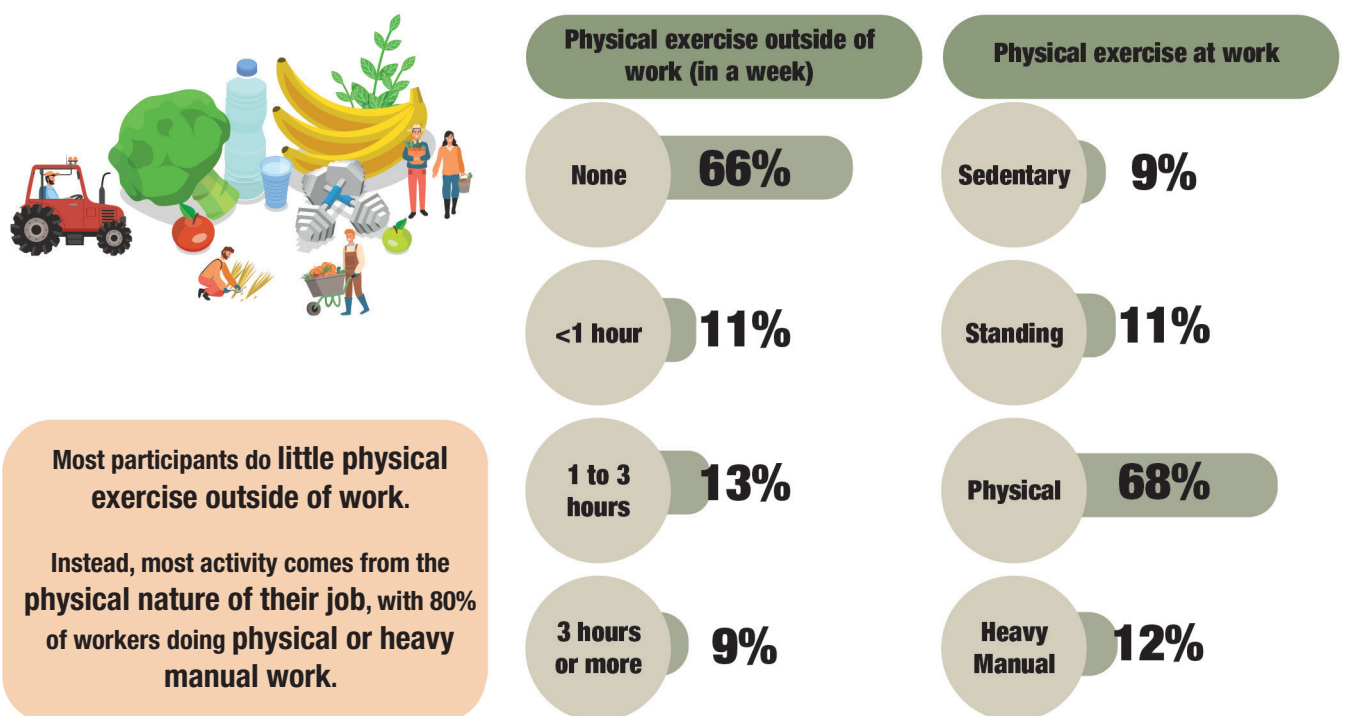
Grassland/fodder crops, pest control and poultry, livestock or animal house areas have also reduced since 2013/14.

Participants reporting using pesticides on **aquatic, hops and mushrooms** is still low.

Diet and Lifestyle are important factors that can affect your health



Physical activity among participants who work



What's next?

The January 2025 questionnaire. This year, we would like to learn more about the pesticide application equipment you use, together with any engineering controls (such as drift reducing nozzles) and personal protective equipment. All of these factors can be important in how much pesticide you may come into contact with during your work. We last asked about this in 2017, but we feel we have developed a more user-friendly questionnaire for this year. We would encourage you to complete the questionnaire and let us know what you think. If you have told us you are retired or no longer using pesticides as part of your work, then you have not been sent this questionnaire. If you have not received a questionnaire and think you should have, please get in touch and we can correct our records.

Working more digitally. In the last newsletter, we mentioned how some participants have been asking for an online option to complete the study questionnaires. We have been working on this throughout the year and had hoped to offer you an online option for the current January 2025 questionnaire. Unfortunately, at the time of printing this newsletter and sending you the questionnaire, we were not quite at the stage where we're able to do this. If the situation changes and the online questionnaire becomes available in the next few weeks, then we will email this to you. Otherwise, we will need to wait until the next questionnaire. In the meantime, if you would be happy to be emailed with future questionnaires, please check your email address on the 'Your contact details' form you have been sent. If this is wrong, you can correct it using the form or by contacting the study team directly. Our contact details are on the last page.

Recruitment. We are always looking for willing volunteers and we are currently recruiting members of the National Register of Sprayer Operators (NRoSO). Feel free to share this newsletter with others so they can find out more about what we're doing. They can request a no obligation invitation pack by providing the team with their contact details. Our contact details are on the back page.



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If you think you may have a health problem related to your work, you might want to discuss this with your healthcare provider such as your practice nurse, GP or occupational health provider. If you think your health problem is linked to exposure at work, let them know this when you speak to them.

Once again, we would like to thank you for taking part in the PIPAH study and hope you continue to remain members. We certainly can't do without you and we look forward to sending you another update. In the meantime, please don't hesitate to contact us either by email PIPAH@hse.gov.uk or by freephone **0800 093 4809** if you have any queries, want to discuss any aspect of the PIPAH study with us, or if you would like to update your current contact information.

The PIPAH study team:

Gillian Nicholls

(Chief Investigator)

Charlotte Young

(Researcher)

David Fishwick

(Study Medical Officer)

'Seun Anjorin

(Researcher)

Claudia Tarr

(Data Management Lead)

Belinda Oakley

(Administrative Support)

Neil Bennett

(Researcher)

Sam Hewitt

(Administrative Support)

We are always looking for willing volunteers from NRoSO. If you have a family member, friend or co-worker who you think may be interested in the study, feel free to give them this Newsletter to look through. They can also find more information on our website, or they can request a no obligation invitation pack by providing the team with their contact details.

To receive an invitation pack:

Website: bit.ly/PIPAH_register



To contact the PIPAH team:

Email: PIPAH@hse.gov.uk

Telephone: 0800 093 4809 (voicemail only)

Visit our webpage www.hsl.gov.uk/resources/major-projects/pipah