

FUNGICIDES: MICROBIOLOGY AND SOCIAL SCIENCE

TALKING POINTS

KNOWLEDGE

1. What is a fungicide?
2. What is antimicrobial resistance?

COMPREHENSION

4. Why is it important to include stakeholders in research projects such as this one?

APPLICATION

5. Which branch would you like to focus on if you were a member of the research team, the social sciences or microbiology arm, and why?

ANALYSIS

6. What are the benefits of microbiologists and social scientists working together on the use of fungicides?
7. Who do you think regenerative agriculture benefits, and why?
8. Farmers can sometimes resist complying with new rules and regulations following policy changes from the national government. Why do you think this is, and how do you think this issue is best addressed?

SYNTHESIS

8. The team planned to take water samples at different points in the year to examine how fungicide concentrations change. How would you plan this series of experiments? Remember to include the roles of microbiologists and social scientists.

EVALUATION

9. How do you think the team's research affects the real world? How might you evaluate these impacts?
10. Only a few decades ago, science was a lot more compartmentalised, and collaborations like this one were virtually unheard of. Why do you think this was, and what do you think has changed?

ACTIVITY

Imagine you are taking part in one of the stakeholder workshops mentioned in the article. These workshops are intended to be a chance for people to voice their views and collectively reach decisions on particular issues – in this case, whether farmers should reduce the quantity of fungicides used on their fields, and what the individual and collective responsibilities for each role to achieve this are.

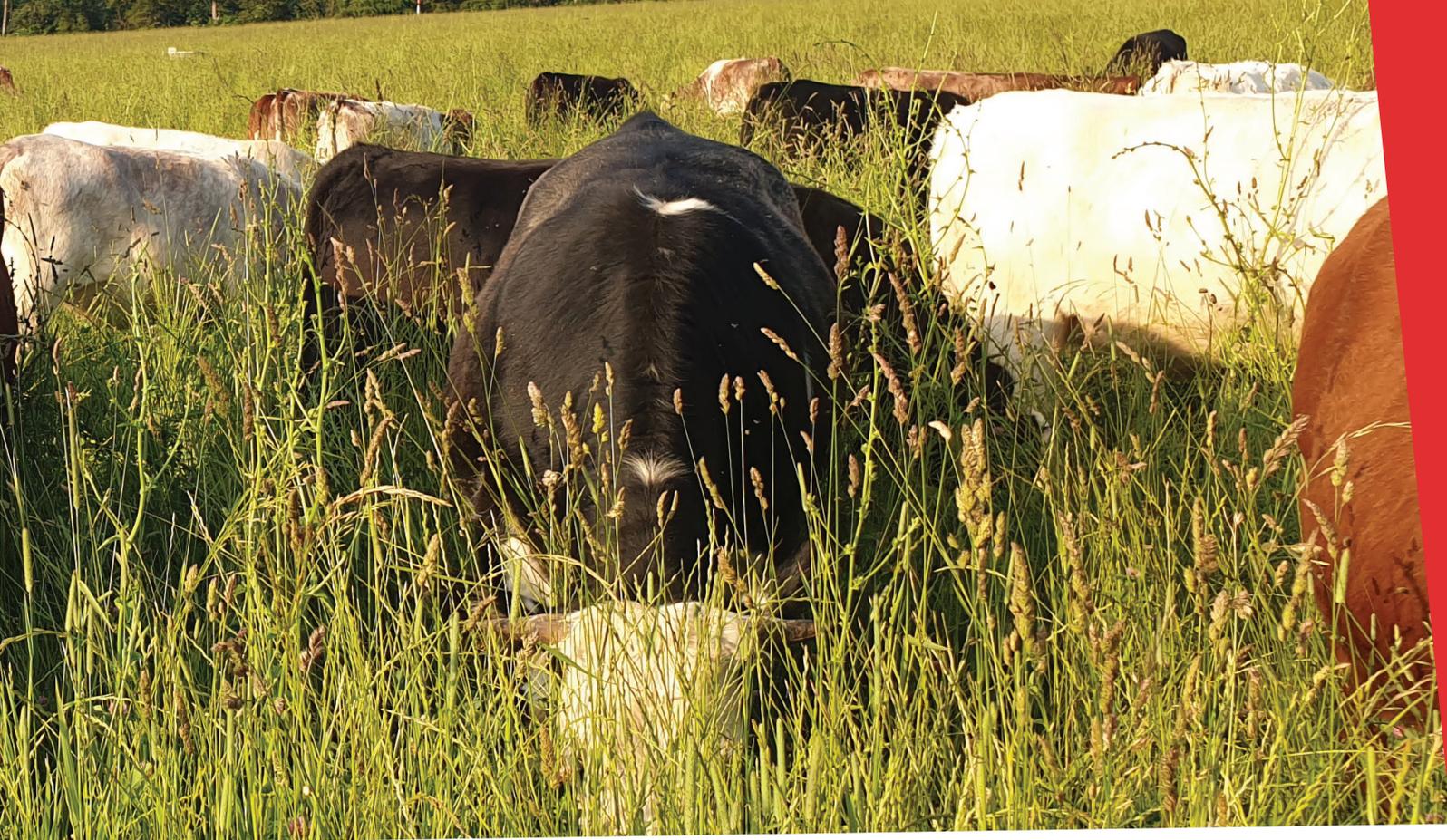
Choose one of these roles:

- Social scientist
- Microbiologist
- Arable farmer
- Agronomist
- Water company representative
- Conservation representative

Write notes addressing the following aspects of your role:

- What is my viewpoint on the issue?
- What influences this viewpoint? (Think about social, economic and environmental factors.)
- How can I communicate this viewpoint in a constructive way that everyone understands?
- What knowledge can I share with others?
- What do I hope to get out of this workshop?

If you are working alone, once you have considered one role, take on another and consider if and how your answers change. What does this tell you about the challenges and rewards of such workshops?



If working in a group, hold your workshop with each team member taking on a different role. You might also want to include an impartial facilitator who leads the workshop.

Consider:

- How your workshop should be structured
- What the 'end goals' of the workshop are
- How you can ensure that everyone has a chance to speak
- How you can ensure the meeting does not become argumentative.

Go through your agreed structure and aim to make a decision on the issue by the end of the workshop. Once finished, consider:

- Within your role, are you happy with the outcome?
- Did the workshop go according to plan? Was the structure followed well? Was everyone given a chance to speak?
- How might you make the workshop more constructive if you did it again?

MORE RESOURCES

- The team has its own website, outlining the project and its key findings: www.fungicidefarmingsouthwest.wordpress.com
- For an introductory video to AMR, Susan suggests 'Antimicrobial resistance (AMR) - What does it mean and why it matters': www.youtube.com/watch?v=MENdrA8B0N4
- To understand how farmers are becoming more sustainable, resilient, and productive by collaborating with researchers, businesses and landowners, visit: www.innovationforagriculture.org.uk/home
- Susan mentions the importance of being open-minded and having challenging conversations to collaborate successfully. This article explores these ideas further: www.linkedin.com/pulse/your-collaboration-wholehearted-three-ways-youll-know-kate-tapper
- Regenerative agriculture and agroecology are increasingly gaining recognition in the UK. This film, currently being developed, will explore this exciting transition period: www.sixinchesofsoil.org