



AMAST NETWORK

THE ANTIMICROBIAL RESISTANCE IN AGRIFOOD SYSTEMS TRANSDISCIPLINARY NETWORK

From Farm to Policy



WHAT IS AMR?

Antimicrobial Resistance (AMR) is one of the biggest threats to global health, food security, and agriculture. When micro-organisms become resistant to antibiotics, common infections become harder to treat.

In UK agrifood systems, AMR affects:

- ✓ Animal Health and Welfare
- ✓ Crop production and soil health
- ✓ Food safety from farm to fork
- ✓ Human health through the food chain

DID YOU KNOW?

10 Million deaths annually by 2050 without action.
In UK agriculture, responsible antimicrobial use is critical to:

- 🔬 Protect animal health
- 🌍 safeguard the environment
- 👤 keep our food supply safe

FROM FARM TO FORK

AMR affects every step of our food systems



ON THE FARM
Livestock,
aquaculture, crops



PROCESSING
Food safety
measures



AT RETAIL
Food storage



IN YOUR HOME
Food
preparation

UK LIVESTOCK PRODUCTION

Progress made

- 📊 50% reduction in antibiotic use since 2014 while maintaining animal welfare
- 🏆 Strong stewardship programmes (RUMA- Responsible Use of Medicines in Agriculture Alliance, AHDB - Agriculture and Horticulture Development Board)

Challenges remain

- ⚠️ Understanding AMR transmission pathways in the environment
- ⚠️ Supporting farmers with practical solutions

WHAT IS AMAST DOING TO COMBAT AMR?

🗺️ Mapping stakeholders and research

🔍 Identifying research priorities

📊 Assessing risks and impacts

🚧 Understanding barriers to action

🔧 Developing intervention frameworks

📚 Building library of best practices

🌐 Engaging with international partners

Connecting and championing farmers, veterinarians, researchers, industry stakeholders, and policymakers to create evidence-based solutions that work in the real world

ALTERNATIVES TO ANTIMICROBIALS

🌟 Biosecurity and farm hygiene

🌟 Probiotics and prebiotics

🌟 Genetic selection for disease resistance

🌟 Nutrition and animal husbandry

🌟 Vaccination programmes

🌟 Bacteriophage therapy (in research)

🌟 Early disease detection systems

Innovative, practical and cost-effective approaches without compromising welfare or productivity

TAKE ACTION AGAINST AMR

👨🌾 FARMERS: stewardship programmes, maintain biosecurity

👨🏥 VETS: follow guidelines, support stewardship

🏭 INDUSTRY: invest in alternatives, share practices and insight

🔬 RESEARCHERS: Fill gaps, develop solutions with industry

🏛️ POLICYMAKERS: Create enabling policies

🛒 CONSUMERS: Support responsible farming

Small actions create big change when we work together