**Sustainable Pest and Soil Management: Balancing Conservation and Agriculture**

**Organizing Group:**

**EastBio – Crops and Soil**

**Date & Location:**

**📍 Morning Session: University of Edinburgh  
📍 Afternoon Session: Royal Botanic Gardens Edinburgh  
 Proposed Date Range: March 10th–14th, 2025**

**Event Overview:**

**This thematic meeting explores the interconnections of pest management, soil health, in ensuring optimal conditions for plant conservation. The aim is to bring experts from the research, conservation, and agricultural industry. With a special focus on sustainable practices, regulatory policies, and integrated pest/soil management, the event will highlight the challenges and solutions in both agricultural and conservation settings.**

**The morning session will feature expert talks and discussions at the University of Edinburgh, while the afternoon will offer an immersive guided tour at the Royal Botanic Gardens Edinburgh, showcasing how plant conservation specialists manage soil health, regulate pests, and maintain biodiversity.**

**Key Discussion Topics**

1. **Pesticide Regulation and Biodiversity Protection**
   * **How institutions like the Royal Botanic Gardens regulate and manage pesticide use while ensuring biodiversity conservation.**
   * **Challenges in balancing pest control with environmental sustainability in conservation areas.**
2. **Soil Health Management and Pesticide Breakdown**
   * **The role of soil health management in optimizing plant growth and resilience.**
   * **How soil quality affects the breakdown of pesticide residues after application.**
   * **The role of soil microbiota and nutrient recycling in degrading pesticides and maintaining soil fertility.**
   * **What different soil types influence pest populations and plant health.**
3. **Pesticide Policies in Conservation Areas**
   * **Regulations and guidelines governing pesticide use in conservation spaces, such as botanic gardens.**
   * **Comparing pest control policies in conservation areas vs. agricultural systems.**
4. **Alternative Pest Control Methods**
   * **The use of natural and biological pest controls as alternatives to synthetic pesticides.**
   * **Plant-based repellents: effectiveness, benefits, and limitations.**
   * **Potential challenges in implementing biological pest control in managed conservation spaces.**
5. **Pest Management in Public Green Spaces and Controlled Environments**
   * **Unique challenges of pest management in botanic gardens and urban green spaces.**
   * **Best practices for pest control in enclosed environments like greenhouses and controlled ecosystems.**
6. **Climate Change and Pest Pressures**
   * **How shifting environmental conditions affect pest populations and plant health.**
   * **Future risks of climate change on soil composition, biodiversity, and pest control strategies.**
7. **Soil Types and Their Influence on Plant Health & Pest Management**
   * **What different soil compositions impact plant resilience against pests.**
   * **The role of soil pH, nutrients, and organic matter in influencing pest resistance and plant growth.**
8. **Key Pests and Their Impact on Biodiversity and Conservation**
   * **Identification of major pests that threaten plant diversity in conservation spaces.**
   * **How pests disrupt ecosystem balance, and the strategies used to mitigate their effects.**
9. **Future of Conservation Spaces like Botanic Gardens**
   * **What does the future hold for plant conservation spaces in the face of climate change, urbanization, and environmental shifts?**
   * **Innovations in pest and soil management that could shape the future of botanical conservation.**