SPEECH INFORMATION (For Conference Program Book)	
Topic	Development and application of environmentally friendly Trichoderma products
Abstract	In the twenty-first century, ecologically sustainable management and environmental protection have become critical priorities for governments worldwide. A major policy focus in developing countries is the search for non-toxic or low-pollution alternatives to chemical pesticides and fertilizers. Among various strategies, biological control—particularly the use of microbial agents—has emerged as a key approach. Trichoderma, a genus of beneficial fungi, is widely recognized as a safe and effective biocontrol agent. Approximately 50% of commercially available microbial fungicides are based on Trichoderma strains. These fungi suppress plant pathogens through multiple mechanisms, including antibiotic production, nutrient competition, mycoparasitism, secretion of cell wall-degrading enzymes, and induction of plant immune responses. Beyond pathogen control, Trichoderma also enhances crop resilience to abiotic stresses such as extreme temperatures, drought, salinity, and flooding. However, effective application of Trichoderma requires careful consideration of strain-specific traits, optimal concentrations for pathogen suppression, compatibility with host crops, local climatic conditions affecting fungal viability, and formulation techniques suited to different agricultural environments. Addressing these factors will maximize the efficacy and sustainability of Trichoderma-based biocontrol solutions.