Conclusion. Sedaxane has low soil persistence and mobility which makes this AI a good option for seed care formulations against wide range of seedborne, soilborne and airborne diseases.

SPECIALTY PREPARATIONS OF MEDICAL PHYSICIANS FOR EMERGENCY SITUATIONS

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Introduction: Emergency Medicine is a relatively new but quickly growing physician specialty in the United States, with official training programs being introduced in the late 1960s. Emergency Medicine physicians are trained specifically to work in Emergency Departments and focus on acute care management and patient stabilization. Today there are over 160 Emergency Medicine Residency Programs accredited by the Accreditation Council for Graduate Medical Education (ACGME), which oversees residency programs in all American physician specialties. In contrast, emergency medical care in Ukraine follows the Franco-German model and is not centralized around Emergency Departments, primarily being provided by therapists and emergency care team ambulance brigades.

Goals: The purpose of this abstract is to highlight differences and similarities in United States' and Ukrainian structures of Emergency care and training.

Results and Discussion: The structure of medical education and Emergency Medicine training in the United States differs significantly from Ukraine. Medical school in the United States begins after completion of a four year bachelor's degree, which can be completed in any discipline. Medical school itself lasts for four years and is followed by specialty training known as Residency, which can last from three to seven years depending on the specialty. Physicians may choose to specialize further by completing additional training known as Fellowship, which typically lasts one or two years. Residency programs for Emergency Medicine last three or four years and compromise of both structured didactic and bedside leaning in a variety of departments but require the majority of learning to take place in the Emergency Department. There are also a number of combined programs that provide dual certification in Emergency Medicine and other specialties such as pediatrics, internal medicine, critical care, anesthesiology, and family medicine. Physicians can also choose from a variety of accredited fellowships including sports medicine, pediatric Emergency Medicine, Hyperbaric medicine, and Palliative care. In contrast to Ukraine, pre-hospital care is overseen by physician medical directors but Emergency

Medicine physicians rarely provide pre-hospital care directly. Total length of training is similar between Emergency Medicine physicians in the United States and Ukraine, who complete two years of internship at the end of medical university.

Conclusion: Emergency medical care delivery in the United States and Ukraine differ significantly in both structure and training. These differences are of particular relevance to Ukraine given the recent governmental reforms and changing landscape of healthcare and medical education.

PHYTOREMEDIATION OF POLLUTED SITES BY MISCANTHUS GIGANTEUS: CURRENT ISSUES (LITERATURE REVIEW) AND FUTURE BIOMEDICAL FRONTIERS

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Pollution of soil causes environmental concern and adverse effects to human and environmental health in many countries. Remediation of former military and mining sites is an important strategy for regional sustainable development. Phytoremediation using the second-generation bioenergy species *Miscanthus* × *giganteus* is an effective method for cleaning the soil from heavy metals.

International cooperation project (Czech Republic, Kazakhstan, Slovakia, the USA and Ukraine) is studying the benefits of *M.* × *giganteus* cultivation at the soils taken from the mining and former military sites contaminated by As, Pb, Zn, Co, Ni, Cr, Cu, V, Mn, Sr, and U as well as at the soil artificially contaminated by Zn and Pb (green house/laboratory test conditions) and is characterizing the behavior of the plant in relation to the nature and concentrations of the metals in the soils. On other hand there are several test fields of plant growing directly in tested sites (natural conditions).

Combination of phytotechnology with production of biofuel crops is the innovative approach in sustainable management of polluted soil. *Miscanthus* growth was tested at different soil types of modeled rock substrates: loess-like loam (LLL), a rocks mix (RM), red-brown clay (RBC), green-gray clay (GGC), black soil (BS)+green-gray clay (GGC); black soil (BS)+red-brown clay (RBC); black soil (BS)+loess-like loam (LLM); and black soil (BS). Cultivation of *Miscanthus* at the contaminated soils has an important economic benefit. The biomass produced by the plant can be used for production of bioethanol or solid biofuel.

The research results illustrated that different types of modeled rock substrates were suitable for growing of *M.*×*giganteus* as raw material for renewable energy. From the substrates tested the LLM, LLL+RBC and RBC+BS showed the best growth of *Miscanthus* during two vegetation seasons.