

## 2003 年河南农业大学植物病理考研复试试题

考研加油站收集整理 <http://www.kaoyan.com>

1. 植物病理学有那些分支学科？请你就其中 3 个主要分支学科，阐述其研究热点和研究进展。（40 分）
2. 目前我国植物病害防治工作中存在那些主要问题？请你阐述解决这些问题的方法。（40 分）
3. 请你将下列英文资料翻译为中文。（20 分）

### Koch's Postulates

In order to substantiate that an organism, group of organisms, or combination of organisms and environmental factors are causal agents for a disease one must fulfill Koch's postulates. While this principle and concept are universally accepted by all pathobiologists (plant and animal), it is all too often over looked and there are diseases with putative causal agents that have never been demonstrated by Koch's Postulates. Years of research may have been spent on organisms never proven to cause particular diseases. Whenever one speaks about, or hears about, a disease, one should always seek to find out if Koch's Postulates were performed. In effect, Koch's Postulates are the scientific method applied to pathobiology. As such, without them Pathobiology becomes an art and not a science.

Pathogen must ALWAYS be associated with disease in all diseased plants. There are no exceptions allowed.

Pathogen must be isolated and established in PURE culture. This may be difficult with obligate parasites, but methodologies have been developed to fulfill this requirement even with obligate parasites.

Inoculation of a healthy plant of the same variety must reproduce EXACTLY the same symptom(s). Inoculation must be of a healthy plant of the same species and cultivar. This may be difficult if one isolates from a plant of unknown cultivar. The symptoms must be reproduced essentially identical to the initial diseased plant, taking into account differences between the initial plants

environment and the health inoculate plant.

Pathogen must be reisolated from inoculated plant and its identity confirmed as the same as the original isolate. The organism recovered must be the identical to the original isolate. There are no exceptions.