Ricin: a phytotoxin with potential use as a weapon. Ricin is a phytotoxin with cytotoxic activity present in castor plant (Ricinus communis L.) seeds. Its structure consists of two polypeptide chains: one with lectin properties that allows it to bind to glycoproteins and glycolipids on the cell surface and the other one which inhibits protein synthesis at the ribosomes level. Access of the toxin from the cell surface to the ribosomes is a complex process with retrograde transport from the Golgi complex to the endoplasmic reticulum, followed by translocation to the cytosol. It is now known that some paramilitary publications and manuals related to the Al Qaeda terrorist network detail procedures regarding the method for extracting ricin from the castor plant seeds. This has increased the fear that ricin may be used for terrorist purposes. Ricin has been part of the chemical and biological weapons programs in different countries and it was found that this toxin is not easy to disseminate for the purpose of causing a large number of casualties. Advantages of ricin intoxication, if used as a weapon, include a latency period of several hours; nonspecific symptoms and signs regardless of the exposure route; and the lack of an antidotal treatment.

Keywords
Bioterrorism. Biological warfare. Chemical warfare.
Ribosome-inactivating proteins. Ricin. Toxins