



Ocenjevanje tveganja fitofarmaceutskih sredstev

Simona FAJFAR, Evelin FABJAN

Ministrstvo za zdravje, Urad R Slovenije za kemikalije, SI-1000 Ljubljana

Pojem ocena tveganja, na splošno, si ljudje različno razlagajo, zato prihaja pogosto do napačnega razumevanja. Pri oceni tveganja tako za industrijske kemikalije, biocide kot tudi za fitofarmaceutska sredstva je potrebno združiti oceno posameznih učinkov (toksikoloških in ekotoksikoloških), ki jih povzroča posamezna kemikalija oziroma sredstvo, in oceno izpostavljenosti. Pri uporabi fitofarmaceutskih sredstev pride do izpostavljenosti okolja ter prek okolja tudi posredno do izpostavljenosti človeka prek hrane. Človek je lahko fitofarmaceutskemu sredstvu izpostavljen posredno npr. prek okolja - z ostanki fitofarmaceutskih sredstev, ki prek polja preidejo v podtalnico, prek te pa v pitno vodo, ali neposredno, ko to sredstvo uporablja. In kaj je tveganje? Tveganje je neželjena posledica določene aktivnosti, v povezavi z verjetnostjo, da se bo ta neželjena posledica zgodila.

Ocenjevanje fitofarmaceutskih sredstev v Evropski Uniji ureja direktiva 91/414/EEC, ki je privzeta tudi v našo zakonodajo. Njen namen je predvsem zaščititi tržišče pred sredstvi, katerih tveganje za človekovo zdravje ni bilo primerno ocenjeno. Poleg tega zahteva učinkovitost sredstev ter da le ta nimajo nesprejemljivih učinkov na okolje, zdravje ljudi in živali, še posebej na podtalnico.

Posamezni koraki ocene tveganja so: ocena podatkov o posameznem sredstvu oziroma o aktivni snovi, ocena učinkov ter ocena izpostavljenosti, ki je za oceno tveganja posebej pomembna. Na koncu, ko združimo oceno učinkov ter oceno izpostavljenosti, dobimo karakterizacijo tveganja.

Potrebno je ločiti med oceno tveganja ter odločitvijo kaj bo pristojni organ s tveganjem naredil ("*Risk management Decision Making*"). Z oceno tveganja se želi ugotoviti kako tvegana je določena situacija, naslednji korak pa je odločitev o tem, kako ukrepati v tej situaciji. Pri tem je zelo pomembna odločitev kakšno tveganje je še sprejemljivo.

ABSTRACT

Risk Assessment of Plant Protection Products

The concept of risk assessment in general has different meanings for people and causes a great deal of misunderstanding. In risk assessment of chemicals, biocides and plant protection products, it is necessary to combine an assessment of the effects (toxicological and ecotoxicological) that a particular chemical can cause, with an exposure assessment. The use of plant protection products causes environmental exposure and, via the environment, also the indirect exposure of man through food products. Man can be exposed to a plant protection product indirectly via the environment - through residues of plant protection products that leach from a field into the ground water and from there into the drinking water, or man can be exposed directly when he uses this product. What is risk? Risk is the probability of the occurrence of an adverse effect on man or the environment resulting from a given exposure to a chemical or mixture. Directive 91/414/EEC covers evaluation of plant protection products in the European Union and it is also implemented in Slovene legislation. The aim of the Directive is to protect the

market against products whose risks to human health and the environment have not been properly assessed. In addition to requiring that the efficacy of products is investigated, it states that products should not have unacceptable adverse effects on the environment in general, and on the health of man and animals and on the ground water in particular.

The steps of a risk assessment are: data evaluation of an individual product or active substance, effects assessment and exposure assessment, which is specially important for the risk assessment. By combining effects assessment with exposure assessment, we get risk characterization.

It is necessary to distinguish between risk assessment and the decision on what the competent authority will do about the risk ("Risk Management Decision Making"). With a risk assessment we wish to discover how hazardous a particular situation is. The next step is the decision on what to do in this situation. The decision on what kind of risk is still acceptable for us is very important.