

Application patterns

Scenario → geographical zone, meteo, soil properties, crop interception, spray drift etc.

Compound → Physico-chemical properties (Solub., DegT50,

→ Exposure assessment: Derive an exposure pattern, i.e. concentrations over time, for e.g. aquatic species, humans, cattle etc.

→ Risk assessment: Compare exposure to toxicity data

To derive an exposure pattern, detailed information about application rate, time of application, frequency and interval of application is needed → GAP = Good Agricultural Practice

Application patterns

Factors that have to be dealt with in GAP:

Application technique:

- Spray drift causes acute exposure in surface water, seed treatment does not, but use of granules causes dust drift

Rate:

- Linear relationship with exposure concentration

Crop:

- Crop calendar, links time of application to growth

Time of application:

- Growth stage of crop and resulting crop interception
- Meteo immediately following application

Application patterns

Factors that have to be dealt with in GAP:

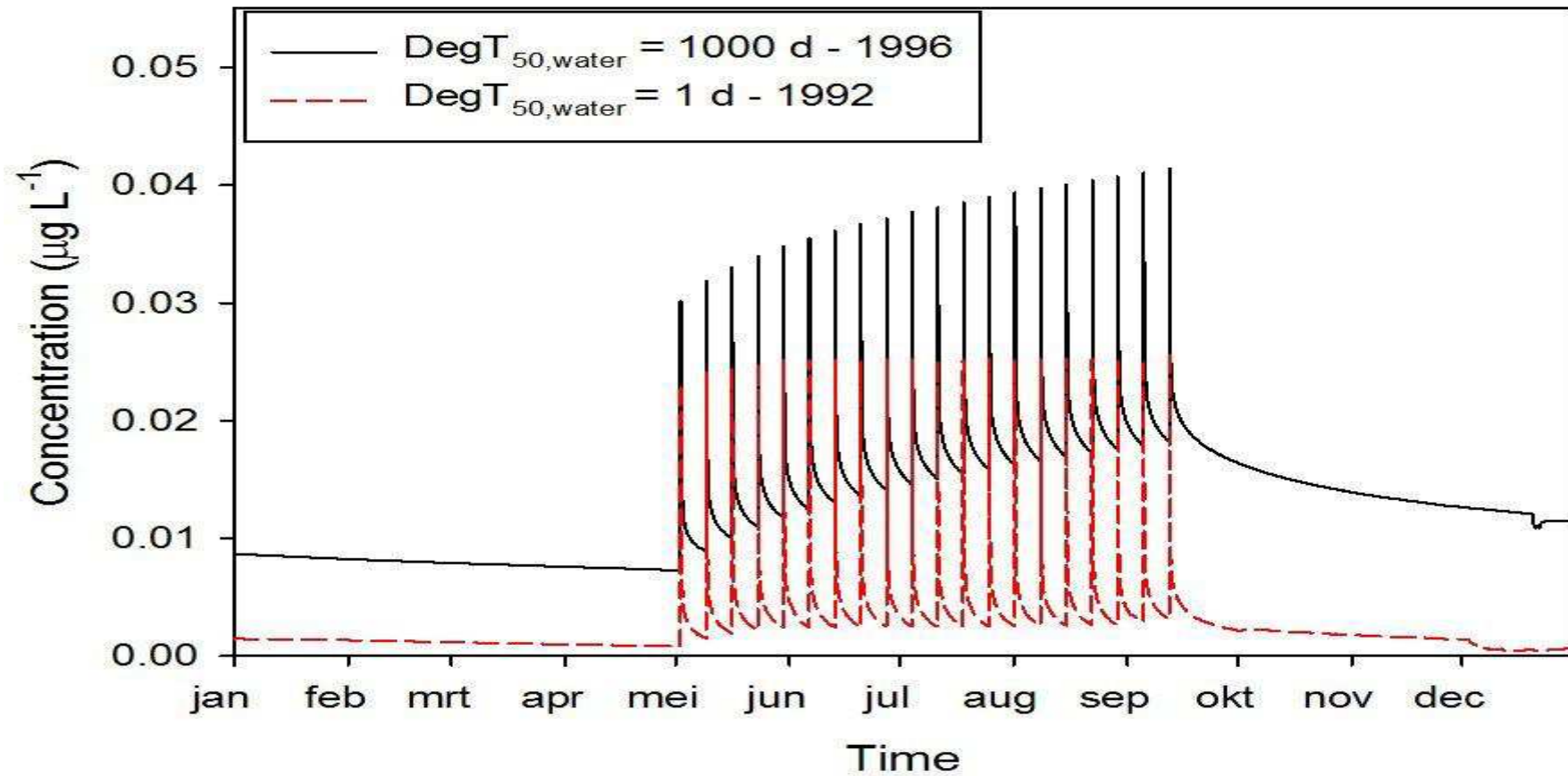
Frequency and interval of application:

- Concentrations in soil or water remaining from previous application may add to effect concentration of present application

Mitigation:

- Buffer zones required?
- Use of special spraying equipment necessary?

Application patterns, repeated use



Application patterns

Example: Dual-Gold, active S-Metolachlor

Crop and/or situation (a)	Member State or Country	Product name	F G or I (b)	Pests or Group of pests controlled (c)	Formulation		Application				Application rate per treatment			PHI (days) (l)	Remarks: (m)
					Type (d-f)	Conc. of as (i)	method kind (f-h)	growth stage & season (j)	number min max (k)	interval between applications (min)	kg as/hl min max	water l/ha min max	kg as/ha min max		
Maize	N/S	DUAL GOLD 960 EC	F	Annual weeds	EC	960 g/l	spray	BBCH 00-12 of the weeds, spring	1	-	0.200-0.600	300	0.58-1.54	NA	
Sweet corn	N/S	DUAL GOLD 960 EC	F	Annual weeds	EC	960 g/l	spray		1	-	0.200-0.600	300	0.58-1.54	NA	
Sorghum	S	DUAL GOLD 960 EC	F	Annual weeds	EC	960 g/l	spray		1	-	0.200-0.600	300	0.58-1.54	NA	
Sugar beets/ beets	N/S	DUAL GOLD 960 EC	F	Annual weeds	EC	960 g/l	spray		1	-	0.200-0.600	300	0.58-1.2 1.5	NA	
Soybean	S	DUAL GOLD 960 EC	F	Annual weeds	EC	960 g/l	spray		1	-	0.200-0.600	300	0.58-1.54	NA	
Sunflower	S	DUAL GOLD 960 EC	F	Annual weeds	EC	960 g/l	spray		1	-	0.200-0.600	300	0.58-1.54	NA	
Potato	S	DUAL GOLD 960 EC	F	Annual weeds	EC	960 g/l	spray		1	-	0.200-0.600	300	0.58-1.54	NA	

Application patterns

Reminder:

When registration is applied for, detailed information about the intended use should be provided by the applicant

- Crop, pest, type of formulation, technique of application
- Use rate of product or active (dose in kg/ha)
- Crop growth stages allowed
- Number of treatments, interval

If this information is not available, you can't do a risk assessment. The registration is only for an application adhering to these criteria.