

LOW DOSE ACTIVE INGREDIENTS FOR DECAY AND INSECT PROTECTION OF WOOD AND WOOD PRODUCTS

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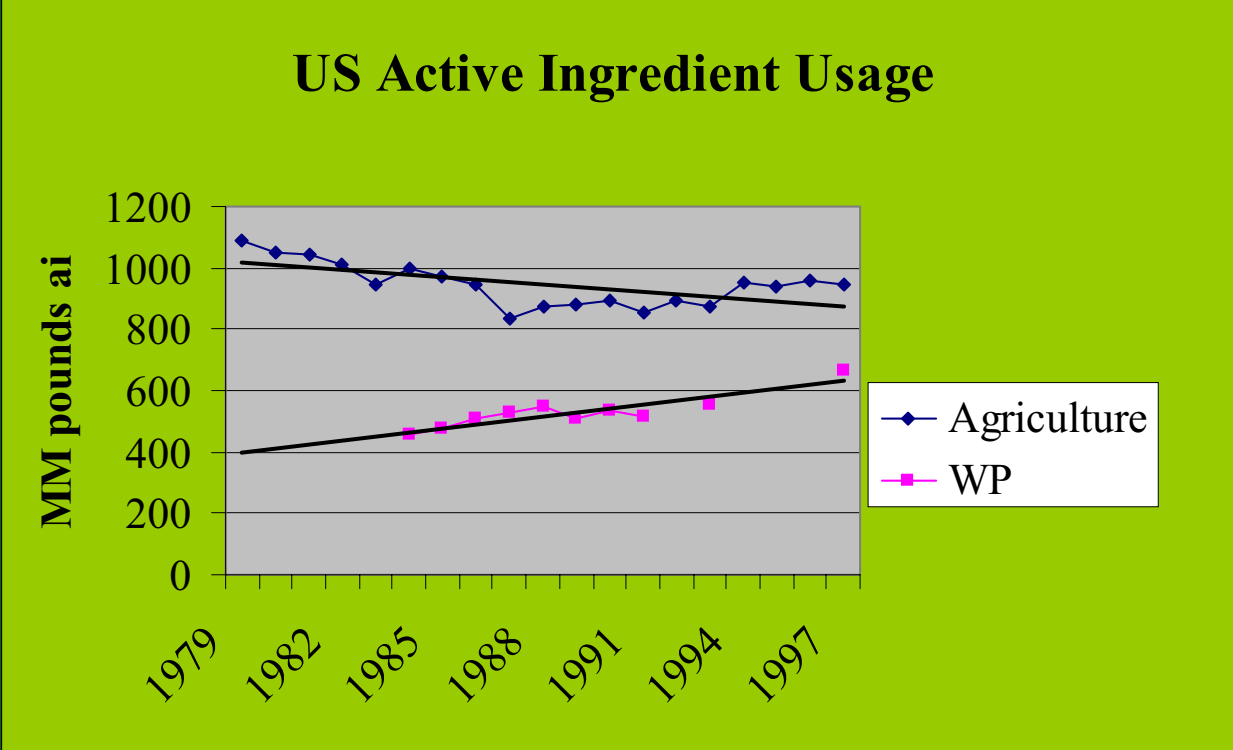
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Advantages of Low Dose Active Ingredients For Wood Preservation

- ◆ Reduced environmental impact
- ◆ Greater specificity against target organisms
- ◆ Fewer effects on non-target species
- ◆ Reduced regulatory pressure
- ◆ Typically newer chemistry with current safety data

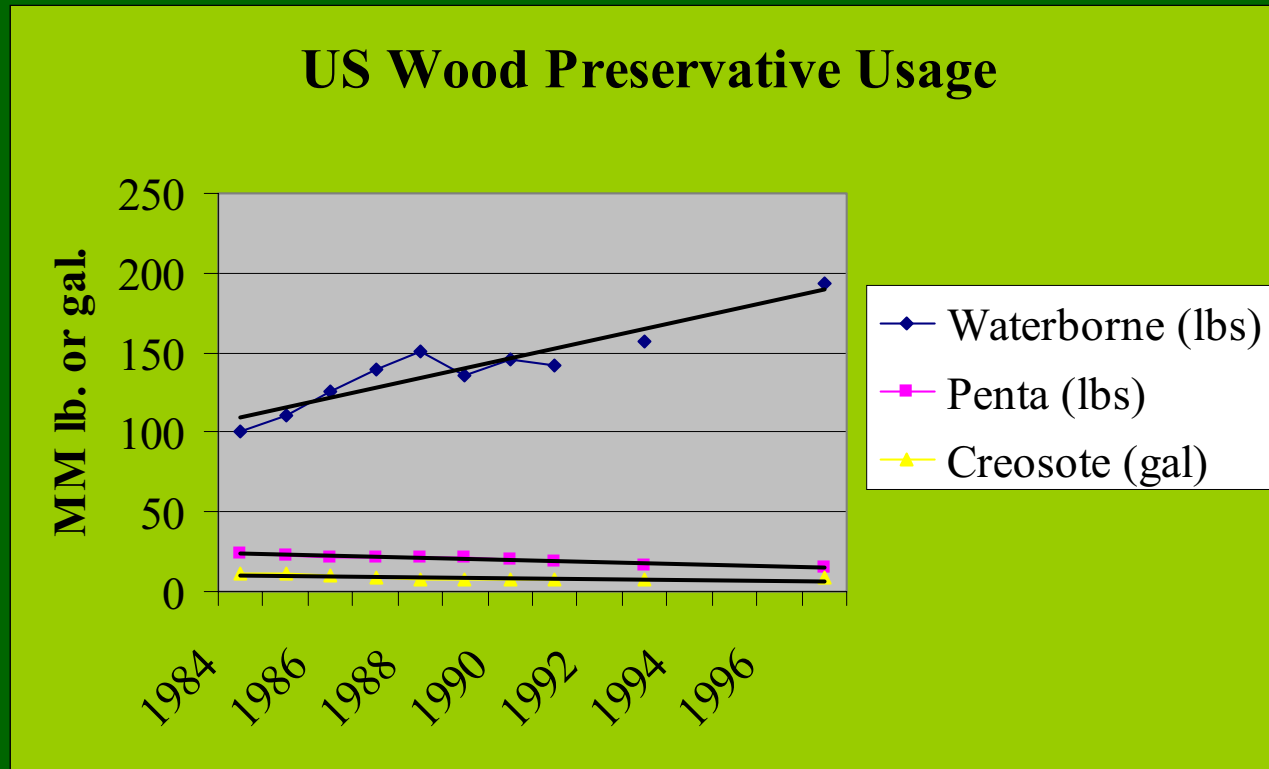
Wood Preservative Volumes vs Agricultural Pesticide Volume



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Wood Preservative Volumes by Type



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Increased Regulatory Pressure

EUROPEAN NEWS IN BRIEF

- **Five wood preservatives banned in Netherlands:**
The Dutch pesticide approval authority, the CTB, has withdrawn the registrations of five wood preservative products based on the salts of copper, combinations of copper and chromium, and combinations based on copper, chromium and arsenic. The CTB had limited the use of these products in 1999, but the restrictions were lifted in November 2000 after a court case brought by the manufacturers, reports Agrow's local correspondent. However, the registrations were cancelled again with immediate effect on October 1st 2001 following a re-evaluation of the products' dossiers. The approvals of a number of other pesticide products containing copper, chromium and arsenic have also been withdrawn, but these may be used up to March 1st 2002.
- **No clomazone registration in herbicide**
Tests com

Aboveground Wood Treatments

<u>Class</u>	<u>Type</u>	<u>g ai/cu. m</u>	<u>Use Category</u>
Metals	CCA (0.4 pcf)	6400*	Grnd Contact
	CCA (0.25 pcf)	4000*	Aboveground
Metal + quats	ACQ	4000*	Grnd Contact
Metal + azole	Cu/BAE/azole	3264*	Aboveground
	Cu/azole	1664	Grnd Contact

* AWPA Standard

Aboveground Wood Treatments

Organics for Decay

<u>Class</u>	<u>Type</u>	<u>g ai/cu. m</u>	<u>Use Category</u>
Quats	DDAC	4000*	Aboveground
Carbamate	IPBC	400	Aboveground
Azole	WOCOSEN	400	Aboveground
Azole	WOCOSEN Fml	200	Aboveground
Azole	Tebuconazole	250	Aboveground
Azole	EVIPOLE	100	Aboveground

*AWPA Standard

Aboveground Wood Treatments Combinations for Decay

<u>Class</u>	<u>Type</u>	<u>g ai/cu. m</u>	<u>Use Category</u>
Azole/Quat	Evipol/DDAC	300	Aboveground
Azole/Carb	WOCOSSEN/IPBC	200	Aboveground
Azole/Azole	WOCOSSEN/tebu	120	Aboveground
Azole/Azole/Carb	WOCOSSEN/tebu/IPBC	<100	Aboveground

Aboveground Wood Treatments

Termiticides

<u>Class</u>	<u>Type</u>	<u>g ai/cu. m</u>
Inorganics	Copper	2500*
Inorganics	Borates	2000*
Organophosphate	Chlorpyrifos	280
Pyrethroids	Bifenthrin	100-200
Neo-nicotinoid	Imidacloprid	??
Neo-nicotinoid	XAMOX	<50

*AWPA Standard

Low Dose Active Ingredients For Wood Preservation

- ◆ The volume of active ingredients used to preserve wood is increasing while pesticide volumes in the agricultural sector are declining
- ◆ Initial response by industry to metal + organic systems will not decrease wood preservative volumes
- ◆ Significant reductions in wood preservative volumes can be achieved using new low dose active ingredients in aboveground applications
- ◆ Further volume reductions will result from the use of co-biocide systems
- ◆ Low dose termiticides are a necessary component of metal free wood preservative systems in the US