

Note to Flumetsulam (DE-498) file:

From: Michael Davy, agronomist
EEB

On 6/30/93 there was a phone meeting between Dr. Bob Ehr of Dow Elanco and Daniel Rieder and myself concerning additional data needs for flumetsulam as a result of my accepting the 123-1 Seedling Emergence Study but requesting additional data on seedling emergence. The reason for additional data is because 1) there appeared to be little phytotoxic activity in among various species that should have due to this herbicide being labeled for pre-emergence and soil incorporation; 2) amino acid synthesis inhibition herbicides kill at very low concentrations and one of the symptoms are "slow death". This indicates that the test may not be long enough for accurate data. 3) There is a feeling that sensitive species may not be exposed.

Dr. Ehr indicated that when he looked at the Seedling Emergence Study that he noticed that some of the sensitive species (cabbage, rape, sugarbeet) were not growing vigorously in the controls compared to his own experience and expectations of what the species should be doing at end of 2 weeks. He suggested that the cause may be that the species which are cool season plants were growing in warm season temperature and light along with other species. In order for symptoms of this herbicide along with other amino acid synthesis inhibitors to be shown more rapid, the plant must be grown under ideal conditions so that the chemical can be translocated more rapidly and thoroughly through the plant system. He further indicated that plant symptoms of death usually show up for flumetsulam at least 3 weeks after exposure. The SEP guidelines call for 2 week test. He agrees that the seedling emergence study may not be as accurate for our data needs.

Dr. Ehr has proposed that raw data from published peer reviewed field emergence studies be sent to us so that we may convert that data into pertinent EC_{25} values that can be used in our risk assessments. We will be looking forward to this data.

Later on in our conversation, Dr. Ehr talked about providing data for endangered species of plants in order to show that endangered species may not be adversely affected. There were 3 methods that were set forth as possible research: 1. testing endangered species of plants that are propagated. 2. the botanical approach of testing several species within families that have endangered species in order to help determine if endangered species would be at risk via family. 3. providing us sites of which endangered species would be located respective to the crops that will be treated with flumetsulam.