

### How much are these doses?

The FS risk assessments, and all other toxicological data, give doses and toxicity levels in mg of toxicant per kg body weight. For example, the acute toxicity threshold for glyphosate is 175 mg/kg. At 350 mg/kg, rabbits develop diarrhea. So, how much is 350 mg/kg really?

If we compare these doses to something more familiar it may help. Ibuprofen is a common anti-inflammatory, pain-reducing medicine commonly taken by people. Each ibuprofen pill contains 200 mg of the active ingredient. The recommended dose is one pill. Assuming we have a 130 lb female taking the ibuprofen, the dose is equivalent to:

$$130 \text{ lbs} \times 0.4536 \text{ kg/lb} = 58.9 \text{ kg}$$

$$200 \text{ mg}/58.9 \text{ kg} = 3.4 \text{ mg/kg}$$

In order for a 130 lb human to take in a dose of ibuprofen equivalent to the 350 mg/kg dose of glyphosate that causes diarrhea, the person would have to ingest **100** ibuprofen tablets at 200 mg each!

Here are the acute lowest-observable-effect-levels (LOAELs; the lowest dose at which an effect is noted) for mammals for the herbicides that might be used in this region:

Aminopyralid	260 mg/kg.
Chlorsulfuron	200 mg/kg
Clopyralid	250 mg/kg
Glyphosate	350 mg/kg
Imazapic	500 mg/kg
Imazapyr	> 500 mg/kg
Metsulfuron methyl	500 mg/kg
Picloram	172 mg/kg
Sethoxydim	480 mg/kg
Sulfometuron methyl	433 mg/kg
Triclopyr	300 mg/kg