

## HEAT INJURY PREVENTION: SIGNS OF HEAT-RELATED ILLNESS



### Background

The nature of many jobs exposes employees to the hazards of performing physically demanding work in high-heat environments. Fortunately, heat-related illness can be prevented through proper education, safe work practices, and hydration. However, it's important that every employee understands the warning signs of heat-related illness and what to do if you or a coworker experience a heat-related illness.

Heat Index/Apparent Temperature	Possible Heat Disorders for People in High Risk Groups
54°C (130°F) or higher	Heat/Sunstroke HIGHLY LIKELY with continued exposure
40°C – 54°C (105°F – 130°F)	Sunstroke, heat cramps or heat exhaustion LIKELY, and heatstroke POSSIBLE with prolonged exposure and/or physical activity
32°C – 40°C (90°F – 105°F)	Sunstroke, heat cramps or heat exhaustion POSSIBLE with prolonged exposure and/or physical activity
26°C – 32°C (80°F – 90°F)	Fatigue POSSIBLE with prolonged exposure and/or physical activity

### What are heat-related illnesses?

Prolonged or intense exposure to hot temperatures can cause heat-related illnesses such as heat cramps, heat exhaustion, and heat stroke (also known as sun stroke). As your body works to cool itself under extreme or prolonged heat, blood rushes to the surface of your skin. As a result, less blood reaches your brain, muscles, and other organs. This can interfere with both your physical strength and your mental capacity, leading, in some cases, to serious danger.<sup>1</sup>

### What are the signs of heat-related illness?<sup>2</sup>

- **Heat rash:** sweating and looks like a red cluster of pimples or small blisters that usually appear on the neck, upper chest, groin, and elbow creases.
- **Heat cramps:** muscle spasms that are painful, involuntary, brief, intermittent, and usually go-away on their own.
- **Heat exhaustion:** heavy sweating, weakness, cold pale and clammy skin, fast weak pulse, nausea or vomiting, fainting.
- **Heat stroke:** high body temperature (above 40°C / 103°F), hot, red, dry or moist skin, rapid and strong pulse, unconsciousness.

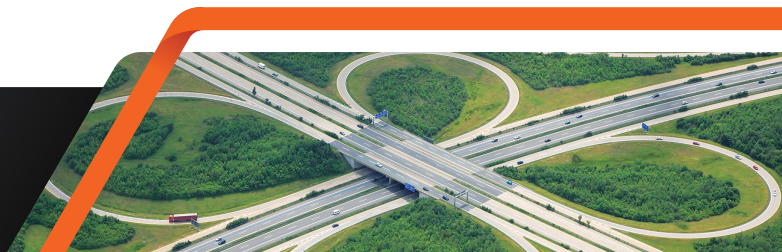
### Treatment for heat-related illness?<sup>2</sup>

- **Heat rash:** provide a cooler, less humid work environment.
- **Heat cramps:** rest and restore fluids and electrolytes.
- **Heat exhaustion:** move to a cooler location, lie down and loosen your clothing, apply cool, wet cloths to as much of your body as possible, sip water. If you have vomited and it continues, seek medical attention immediately!
- **Heat stroke:** this is a medical emergency CALL 911 IMMEDIATELY! Move the person to a cooler environment; reduce the person's body temperature with cool cloths or even a bath. Do NOT give fluids.

### Sources:

<sup>1</sup>WebMD: <https://www.webmd.com/first-aid/understanding-heat-related-illness-basics>

<sup>2</sup>CDC: <https://www.cdc.gov/disasters/extremeheat/warning.html>



# SAY GOOD-BYE TO TOADFLAX AND LEAFY SPURGE

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Dow AgroSciences



Dow AgroSciences

## Aspect™

HERBICIDE

## Tordon™ 22K

HERBICIDE



Leafy Spurge



Yellow Toadflax

**Deep-rooted perennials are the worst. Yellow toadflax and leafy spurge are among the hardest invasive weeds to get rid of. We're here to help with two excellent solutions, Tordon™ 22K and Aspect™.**

### Proven, trusted

Tordon 22K has proven itself over the years as the best, most trusted control option for leafy spurge and toadflax. Applied to actively growing weeds, Tordon 22K translocates into their root systems to provide extended control of deep-rooted perennials as well as noxious broadleaf weeds.

In fact, in a 2017 trial where Tordon 22K went head-to-head against three other common vegetation management herbicides\*, it delivered the most complete toadflax control. The trial was conducted in Alberta where all four herbicides were applied at post-bloom timing across three trial sites, each with four replicates. Six weeks after application, toadflax control was measured at each site and Tordon 22K was the clear leader with 90% control, outstripping its nearest competitor by over 30 percentage points.

Right across the Prairies, Tordon 22K has been shown to provide the longest lasting control of leafy spurge and toadflax. It's easy to use, too, with a liquid formulation packaged into convenient 10L jugs and it can be applied broadcast, plus it's registered for use as a spot treatment on leafy spurge, toadflax and field bindweed.

### Effective, economic

If you're looking for a more economical, season-long control option, try Aspect herbicide. With two active ingredients neatly formulated into one easy-to-use liquid, Aspect will take care of perennials like leafy spurge and toadflax, as well as brush and broadleaf weeds commonly found in rights-of-way, such as rail and electrical utility corridors. Plus, Aspect has excellent safety on grass species, so if grass health is a component of your IVM program, this is your go-to herbicide.

You get even better control of leafy spurge and toadflax when you use Gateway™ adjuvant (at 0.25-0.375% v/v) with Aspect. The adjuvant helps increase plant uptake and product efficiency for more effective dieback.

### More than perennials

Better control of leafy spurge and toadflax is not the only reason to look at Tordon 22K and Aspect. Between them, they can take care of some of your most difficult weeds, such as common ragweed, dandelion and Canada thistle, perennial sow thistle, field bindweed and three species of knapweed with Tordon 22K. Plus, Aspect is the industry standard for control of woody species, such as willow, poplar and more.

Dow AgroSciences is committed to providing vegetation management professionals with products they can trust and the flexibility they need to manage their IVM programs in a sustainable manner. That includes providing products, like Tordon 22K and Aspect, that help enhance bio-diversity on rights-of-way.

More than leading herbicide products, Dow AgroSciences IVM Experts are here to support your program through technical advice and stewardship support. For more information, call your IVM Expert, call the Solutions Centre (1-800-667-3852), or visit [ivmexperts.ca](http://ivmexperts.ca).

\* Alberta toadflax trial funded by DowAgroSciences and conducted independently by Laurel Perrot of Lakeland College in 2017. Trial sites located at Koroluck (Battle River), Caron and Gordon compared Tordon 22K, Method®, Navius™ and Overdrive® applied at 100L/ha on August 9, 2017.



# PESTS ADDRESSED

## Leafy Spurge & Yellow Toadflax

### Leafy Spurge (*Euphorbia esula*) and Yellow Toadflax (*Linaria vulgaris*)

#### What do both of these weeds have in common?

- The same area of origin – Eurasia
- Extensive creeping root system, making control difficult
- Both weeds aggressively invade rangeland
- Yellow flowers

#### Leafy Spurge Key Identification Characteristics:

- Brown creeping root with pink buds just above soil surface.
- The entire plant contains a milky white sap that is poisonous to all livestock - except sheep.
- Flowers in small clusters with heart shaped bracts below. Both have a yellow green color.

#### Yellow Toadflax Key Identification Characteristics:

- Found in patches, due to creeping roots
- Dense linear leaves that are narrow at both ends
- Yellow and orange “snapdragon” type flowers



Figure 1: Leafy spurge flowers



Figure 3: Leafy spurge contains milky sap



Figure 2: Yellow Toadflax flowers

## Tordon™ 22K

### HERBICIDE

#### PRODUCT NUMBER: 37763

- Extended control. Tordon™ 22K has proven itself over the years as the longest lasting, most trusted control option for leafy spurge and toadflax;
- Applied to actively growing weeds, Tordon 22K translocates into their root systems to provide extended control of deep-rooted perennials as well as noxious broadleaf weeds;
- Tordon 22K has been shown to provide the longest lasting control of leafy spurge and toadflax.
- It's easy to use. It can be broadcast applied or used as a spot treatment on leafy spurge, toadflax and field bindweed.

## Aspect™

### HERBICIDE

#### PRODUCT NUMBER: 791535

- Trusted results. Aspect™ is the industry standard for control of woody species and broadleaf weeds;
- Aspect is an economical option for the control of leafy spurge and toadflax with two active ingredients formulated into one easy-to-use liquid. \* Please note, subsequent treatments may be required.;
- For increased efficacy and faster plant uptake for tough to control species such as leafy spurge and toadflax, use Gateway adjuvant at a rate of 0.25-0.375% v/v;
- Apply to target weeds and trees when they are actively growing.

# REWARDS & PROMOTIONS

Improve Your Brush Control Results & Earn Rewards

Earn **1,500** Rewards Bonus Points\*



Earn 1,500 Points for every matching case of Garlon and Gateway purchased this June and July.\*

Valid for qualified Univar Rewards customers only, with 2018 status level of silver or above. Applicable purchases include all invoiced sales between June 1 2018 and July 31 2018. Must purchase on a Univar Environmental Sciences account.

## HAVE A RODENT PROBLEM? WE CAN HELP!



Univar has a full line up of products to catch and control the rodent population in your commercial or warehouse spaces.

[Check out our rodent bait stations & accessories here!](#)

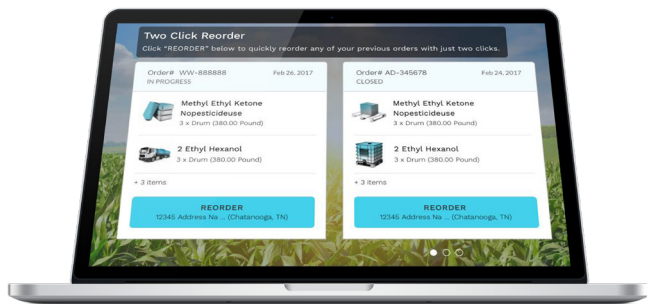
Call (866) 572-8240 or email us at [ESCustomerService@univar.com](mailto:ESCustomerService@univar.com) to order



## COMING SOON!

Placing orders is about to get easier! Our online store is coming Fall 2018

- 24/7 Document Access
- 2-Click Re-order
- Order Status & History



**Navius®**

Looking for dependable control of leafy spurge? Navius delivers.

Application Type	Solution	Rate	Application Timing
Post-Emergent Selective Weeding Range and Pasture	Navius	167 g/ha	Weeds actively growing - Mid May thru Mid September (do not need to remove cattle from pasture)



# CONNECTIVITY

A Spotlight on Products, Promos, Insights, and More



## INDUSTRY NEWS

### [CN changes its position on sharing spraying methods with B.C. government](#)

After CN sent a letter to the B.C. government stating it would not submit a Pest Management Plan, the rail company's chief legal officer said they are currently working on a plan. "I was not pleased with the..."

### [Health Canada launches consultation on use of imidacloprid pesticide](#)

Canadians care about how the use of pesticides impacts the environment. The Government of Canada relies on scientific evidence to evaluate pesticides so that they are used safely and...

### [Cosmetic pesticide ban remains in place as weeds spring up in Manitoba](#)

Winnipeg homeowner Gerry Mercier takes great pride in his lawn. "I fertilize it with high grade fertilizer. I like to keep it green." Green, not yellow, but Mercier says the eco-friendly pesticides available in Manitoba today simply aren't ...

### [Use IVM and Herbicide as a Least-Cost Approach](#)

Electric transmission line corridors are maintained to ensure safe, adequate clearances between vegetation and energized conductors as well as to provide access to energy delivery infrastructure for inspection,...

### [Drones allow farmers to limit pesticide use, spot problems with crops](#)

Drones allow farmers to limit pesticide use, spot problems with crops. How farmers are using drone technology to up their game in the fields. It's the end of a two-day course, and Wayne Krekoski is maneuvering...

## INDUSTRY EVENTS

[Ontario Vegetation Management Association, Annual General Meeting](#) - September 20-21 2018, Ingersoll, ON

[Atlantic Vegetation Management Association, Annual General Meeting](#) - October 10-12, 2018: Halifax, NS

[Integrated Vegetation Management Association of British Columbia, 2018 Forum](#) - November 6-8, 2018: Richmond, BC