



Granot, WG

## Granat, WG

water dispersible granules

tribenuron-methyl 750 g/kg

Postemergence herbicide of systemic effect intended to control annual dicotyledonous weeds, including those 2.4-D and MCPA resistant weeds on cereal crops.

### Advantages:

- Highly efficient at low consumption rates;
- Highly selectivity with regard to cereal crops;
- No limitations for rotating crops;
- Wide range of application periods in terms of crop growth phases;
- Efficient at min. ambient temperature of 5 °C;
- Economical and easy to apply and store;
- Compatible with most pesticides, which makes it suitable for integrated protection purposes.

# Action

## Mode of action

The preparation has a systemic effect. The active ingredient penetrates the plant via its aboveground portion, inhibits cell division in sensitive weeds, thus stopping their growth in several hours after treatment.

## Protective period

Controls dicotyledonous weeds throughout the vegetation period (unless 2nd wave of weeds appears).

## Speed of action

The herbicide is quickly absorbed by leaves and moves along the entire plant, however complete perishing of weeds is observed in 2 or 3 weeks after treatment. How fast the signs of delayed growth appear depends on weather conditions during treatment (humidity, temperature), species composition of weeds and their growth stage. Young weeds are more sensitive to the herbicide.

## Spectrum of action

Annual dicotyledonous weeds, including 2.4-D and MCPA resistant weeds.

**Sensitive species:** Canadian thistle, cranebill (species), pepper plant (species), charlock, blindweed, day-nettle (species), vetch, wall rocket, tansy mustard, hemp nettle (species), buttercup (species), treacle erysimum, chickweed, copper rose, wild radish, field chamomile, chamomile (species), campion (species), common sunflower, loesel (species), stinkweed, field pansy, sandweed, green amaranth, yellow field sow thistle, pigweed, cockweed, sandwort (species), storksbill, candytuft (species), toadflax (species), stoneseed, hollyhock (species).

**Moderately sensitive species:** bluebottle, common fumitory, wild pansy, catch weed, common dandelion.

**Feebly sensitive species:** ragweed, sheepbine, winterweed.

## Compatibility

The preparation is compatible with most herbicides: Drotik, CSC; Primadonna, SE; Primadonna Super, CSC; Lintaplant, SC; Ovsugen Super, EC; Ovsugen Express, EC; Lornet, SL; Zinger, WP; Kassius, WSP; Fenizan, SL; Lornet, SL; Sprut Extra, SL. In each specific case, the components to be commingled shall be checked for physical and chemical compatibility.

## Selectivity

Selectivity for cereal crops is achieved by means of fast herbicide decomposition in a stable plant.

## Potential for resistance

To avoid resistance to sulfonylureas, use herbicides with various mechanisms of action, alternate preparations and use combined herbicides.

# Usage regulations

Crop / object of treatment	Harmful object	Preparation consumption rate, kg/ha	Mix consumption rate, l/ha	Method, time and conditions of application. Application time for manual (machinery assisted) operations	Wait time (application frequency)
Spring wheat and barley, oats	Annual dicotyledonous weeds, including 2.4-D and MCPA resistant weeds.	0.015-0.02	200-300	Planting spraying at 2-3 leaves stage – start of crop tillering at earlier stages of weed growth -(3)	60(1)
Spring and winter wheat and barley, oats	Annual dicotyledonous weeds, including 2.4-D and MCPA resistant weeds, Canadian thistle.	0.02-0.025	200-300	Planting spraying at crop tillering stage (winter crops in spring) and earlier stages of weed growth (annual – 2-4 leaves, Canadian thistle – rosette) -(3)	

Spring and winter wheat, spring and winter barley	0.015-0.02	200-300	Plant spraying at crop tillering stage (winter crops in spring) with a 200 ml/ha mix of Satellite, L at earlier stages of weed growth (2-4 leaves) and Canadian thistle - rosette -(3)	
Spring and winter wheat, spring and winter barley	Annual dicotyledonous weeds, including 2.4-D and MCPA resistant weeds.	0.01-0.015	200-300	Plant spraying at crop tillering stage (winter crops in spring) with a 200 ml/ha mix of Satellite, L at earlier stages of weed growth (2-4 leaves) -(3)

### Application technique. Mix preparation method

Prepare the mix immediately before use. Dose the herbicide for a single fill of the sprayer. To prepare the stock solution, fill the vessel (bucket, tank) with water to 1/4, add the herbicide dose, stir uniform liquid and top up with water to 3/4. Then fill the sprayer tank with water to 1/2, add the prepared stock solution of herbicide, top up with water until full. When a surfactant based herbicide is used, add Satellite, L to the mix, and top up the tank with water until full while continuously stirring the solution with hydraulic agitators. Then rinse several times the vessel where the stock solution was prepared. During spraying, the hydraulic agitator of the sprayer shall be in operation. Use the prepared mix immediately after preparation. After treatment with the herbicide, thoroughly rinse the sprayer tank with water and soda ash.

Prepare the mix and fill the sprayer on dedicated sites that are disinfected afterwards.

Use ground-based beam sprayers Amazone, OPSh-15-01, OPSh-3-24, ON-400, OP-2000-2-01, or similar.

**The best result and quickest herbicide action of the preparation are achieved during active growth of young weeds at 2-4 leaves stage.**

### **Phytotoxicity**

The preparation does not pose phytotoxic hazard for cereal crops, and quickly metabolizes in wheat and barley that is which these crops are highly tolerant to the preparation.

### **Recommendations on protection of valuable flora and fauna objects**

The preparation is of low hazard to bees – Hazard Class 3, and virtually of no hazard to fish – Hazard Class 4. Basic provisions of the ‘Guidelines for preventing bee poisoning with pesticides’ and following environmental regulations:

treat plants in morning and evening;

treat plants at wind speed up to 4 or 5 m/sec;

protection boundary zone for bees – 2-3 km;

bee’s flight time limitation – 3-4 hours.

Warn apiary owners 4 or 5 days before treatment.

Do not apply the preparation within the sanitary zone of fishery water bodies 500 m away from the flood line in case of maximum floodwater level, but not closer than 2 km to the existing banks.

## **General information**

### **Chemical class**

sulfonylureas

### **Storage temperature range**

minus 30 °C to plus 30 °C. Stir before use

### **Transport and storage conditions**

Comply with all conventional rules of toxic and explosive substance transport. Keep the preparation in a room dedicated for pesticide storage

### **Shelf life**

3 years

### **Hazard class**

Hazard class III, moderate hazard

**Packing**

0.5 kg

**Registrant**

Schelkovo Agrohim, Russia

**Manufacturer**

Schelkovo Agrohim, Russia