

Kassius, SP

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water-soluble powder

rimsulfuron 250 g/kg

Selective herbicide of systemic effect intended to control annual and perennial dicotyledonous and grass weeds on maize and potato plantings.

Advantages:

- Ravages the broadest range of grass and dicotyledonous weeds
- Kassius application fully replaces pre-emergence and postemergence treatment with herbicides
- Low consumption rates
- No crop rotation limitations
- Preparation activity does not depend on weather conditions
- Low toxicity to the warm-blooded

Action

Mode of action

The active ingredient suppresses acetolactate synthase enzyme and stops cell division in sprout and root growing points of sensitive weeds. It is absorbed mainly by leaves, and its efficiency is not therefore dependent on moisture content in soil.

Protective period

The bio-effect lasts throughout the vegetation period.

Speed of action

In several hours after exposure, sensitive weeds cease growing and no longer compete with crop plant for moisture and mineral absorption. Other visible symptoms (reddening, chlorosis, necrosis, and leaf deformation) appear in 2 or 3 days after treatment, and sensitive weeds die totally in 5 to 15 days.

Spectrum of action

Annual and perennial grass and dicotyledonous weeds.

Sensitive species: ragweed, quack grass, Aleppo grass, common orach, loose silky bent, rough-stalked bluegrass, barnyard grass, foxtail (species), crabgrass, sorgho, oat grass, ryegrass, velvetleaf, amaranth (species), pigweed (species), wild radish, caseweed, common fumitory, catch weed, chamomile (species), charlock, spring groundsel, sow thistle (species), sheep bur, vetch, satin, foxtail, copper rose, tufted vetch, hemp nettle (species), woundwort (species), dish mustard, day-nettle.

Moderately sensitive species: Canadian thistle, sheepbine, bladder campion, prickly lettuce, pepper plant (species), field pansy.

Feebly sensitive species: tansy mustard, jimsonweed, houndsberry, blue couch grass.

Usage regulations

Crop / object of treatment	Harmful plants	Preparation consumption rate, g/ha	Mix consumption rate, l/ha	Method, time and conditions of application. Application time for manual (machinery assisted) operations	Wait time (application frequency)
Maize	Annual dicotyledonous and grass weeds	40	200 - 300	Planting spraying at 2-6 crop leaves stage and earlier stages of weed growth using mix with 200 ml/ha of Satellite, L (surfactant) -(3)	60(1)
	Annual and perennial grass and dicotyledonous weeds	50	200-300	Planting spraying at 2-6 crop leaves stage with 10-15 cm high weeds (wheat grass) and sow thistle rosette stage using mix with 200 l/ha Satellite, L (surfactant) -(3)	
		30+20	200-300	Spraying of plantings at 2-6 crop leaves stage. Two partial treatments during the 1st and 2nd weed waves (in 10 to 20 days) using mix with 200 l/ha Satellite, L (surfactant) (individual for each treatment) -(3)	60(2)

Potato (except early-ripe species)	Perennial (quack grass), annual grass and some dicotyledonous weeds	50	200-300	Planting spraying after mounding, at earlier growth stages (1-4 leaves) of annual weeds and with quack grass as high as 10-15 cm using mix with 200 l/ha Satellite, L (surfactant)	60(1)
		30 + 20	200-300	Planting spraying after mounding during the 1st wave of weeds and second treatment during the 2nd wave of weeds, at earlier growth stages (1-4 leaves) of annual weeds and with wheat grass as high as 10-15 cm using mix with 200 l/ha Satellite, L (surfactant) (individual for each treatment)	60(2)

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, add the surfactant to the mix, fill the tank with water until full while continuously stirring the mix 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 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 by:

- crop treatment in the most favorable weather conditions: optimal air humidity and temperature of 15 °C to 25 °C.

— Do not use when plants are wet after rain or dew.

Phytotoxicity

The preparation does not pose phytotoxic effect on crops protected when used in recommended doses.

Compatibility

Efficient when used alone. It may be commingled with 2,4-D based preparations for maize treatment, or Zontran, CSC for potato treatment. When combining in mixes, perform trial mixing. Where physical and chemical properties change, avoid combined use.

Potential for resistance

Where recommended doses and preparation application technique are met, resistance is unlikely to occur.

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 use the preparation in private farms and by aerial method.

General information

Chemical class

Sulfonylureas

Transport and storage conditions

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

Storage temperature range

- 25 °C to +35 °C

Shelf life

3 years

Hazard class

Hazard class 3, moderate hazard

Packing

0.5 kg

Registrant

Schelkovo Agrohim, Russia

Manufacturer

Schelkovo Agrohim, Russia