



Dow AgroSciences



# Broadway<sup>®</sup> Sunrise

## HERBICIDE

Product Registration Number: 14960.

An oil dispersion containing 5.4 g/litre (0.51% w/w) pyroxsulam, 5.4 g/litre (0.51% w/w) cloquintocet-mexyl and 314 g/litre (29.76% w/w) pendimethalin.

A post-emergence ALS inhibitor product (containing HRAC groups B and K1) for use on all varieties of WINTER WHEAT, WINTER RYE and TRITICALE for the control of BLACKGRASS and other grasses and broad-leaved weeds. Use only as part of a resistance management strategy that includes cultural methods of control and does not use ALS inhibitors as the sole chemical method of grass weed control.

The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work.

**READ DIRECTIONS FOR USE ON ATTACHED LEAFLET.**

**PROTECT FROM FROST.**

**SHAKE WELL BEFORE USE.**



**Pack size: 7 Litres e**

To access the Safety Data Sheet for this product scan the QR code or use the weblink below:



<http://uk.dowagro.com/wp-content/uploads/BROADWAY-SUNRISE-SDS.pdf>

Alternatively contact your supplier

		<p><b>Product Identifier according to Art. 18 of Reg. (EC) No 1272/2008 [CLP]:</b> Broadway<sup>®</sup> Sunrise; Pyroxsulam; Pendimethalin; Cloquintocet-mexyl</p> <p><b>WARNING</b> Causes skin irritation May cause an allergic skin reaction. Very toxic to aquatic life with long lasting effects.</p>
<p>Wear protective gloves/clothing/eye/face protection. IF ON SKIN: Wash with plenty of soap and water. Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste. Contains pyroxsulam and cloquintocet-mexyl. May produce an allergic reaction.</p>		
<p><b>To avoid risks to human health and the environment, comply with the instructions for use.</b></p>		

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This label is compliant with the CPA Voluntary Initiative Guidance.



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## **IMPORTANT INFORMATION**

### **FOR USE ONLY AS AN AGRICULTURAL HERBICIDE**

<b>Crops/Situations:</b>	Winter wheat, winter rye, triticale
<b>Maximum Individual Dose:</b>	3.5 litres product per hectare
<b>Maximum Number of Applications:</b>	One per crop
<b>Latest Time of Application:</b>	Before pseudo-stem erect stage (Zadoks 30)
<b>Aquatic buffer zone distance (metres):</b>	18

When used on crops with a greater than 5. aquatic buffer zone this product must not be applied via hand-held equipment

**READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.**

## **SAFETY PRECAUTIONS**

### **Operator protection**

Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:

**WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) and SUITABLE PROTECTIVE GLOVES** when handling the concentrate.

However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection

**WHEN USING, DO NOT EAT, DRINK OR SMOKE.**

**WASH HANDS AND EXPOSED SKIN** before eating, drinking or smoking, and after work.

**AVOID EYE AND SKIN CONTACT.**

### **Environmental protection:**

Extreme care must be taken to avoid spray drift onto non-crop plants outside of the target area.

Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads.

To protect aquatic organisms respect an unsprayed buffer zone distance to surface water bodies in line with LERAP requirements. **DO NOT ALLOW DIRECT SPRAY** from horizontal boom sprayers to fall within the distance specified for the crop to the top of the bank of a static or flowing water body, or within 1 m of the top of a ditch which is dry at the time of application. Aim spray away from water. **ALL CROPS WITH A BUFFER ZONE GREATER THAN 5 M ARE NOT ELIGIBLE FOR BUFFER ZONE REDUCTION UNDER THE LERAP HORIZONTAL BOOM SPRAYERS SCHEME.**

This product qualifies for inclusion within the Local Environment Risk Assessment for Pesticides (LERAP) scheme. Before each spraying operation from a horizontal boom sprayer, either a LERAP must be carried out in accordance with CRD's published guidance or the statutory buffer zone as appropriate to the crop must be maintained. **NOTE ALL BUFFER ZONES OF MORE THAN 5 M ARE NOT REDUCIBLE.** The results of the LERAP must be recorded and kept available for three years.

### **Storage and disposal:**

**KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.**

**KEEP OUT OF REACH OF CHILDREN.**

**KEEP IN ORIGINAL CONTAINER,** tightly closed, in a safe place away from damp/sources of heat.

**RINSE CONTAINER THOROUGHLY** by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of safely.

**DO NOT RE-USE CONTAINER** for any purpose.

## **DIRECTIONS FOR USE**

**IMPORTANT:** This information is approved as part of the Product Label. All instructions within this section must be read carefully in order to obtain safe and successful use of this product.

## **GENERAL INFORMATION**

BROADWAY SUNRISE has foliar and some residual activity against blackgrass, wild oats, ryegrass, brome species and broad-leaved weeds. The ideal timing for application is when the weeds are small and actively growing and it is essential to ensure good coverage. The effectiveness of BROADWAY SUNRISE may be reduced when soils are very dry, or temperatures are low and subsequently weed growth is slow.

## **NOTES**

Avoid overlapping of spray swaths.

Do not spray when crops are under stress from cold, drought, water logging, pest damage, nutrient deficiency etc.

Do not roll or harrow 7 days before or after application.

Take extreme care to avoid damage by drift onto susceptible crops, non-target plants or waterways. Do not apply directly to, or allow spray drift to come into contact with agricultural or horticultural crops, amenity plantings, gardens, ponds, lakes or watercourses.

Do not apply BROADWAY SUNRISE in tank mixture with plant growth regulators (PGRs) as crop injury may occur. A minimum interval of 7 days between applications should be observed.

Do not apply BROADWAY SUNRISE in tank mixture with an organophosphorous insecticide. A minimum interval of 14 days before or after an application of BROADWAY SUNRISE should be left.

Concentrated or dilute BROADWAY SUNRISE may stain. Avoid spillage. Staining is minimised or completely removed if skin/clothes are washed immediately.

## WEED RESISTANCE

Do not use products that only contain a herbicide with an ALS mode of action where common chickweed or mayweed are present.

If herbicides of the same mode of action are used repeatedly in the same field against the same target weed, selection of resistant plants may occur. A plant is considered to be resistant to a herbicide if it survives after a treatment applied at the correct timing and recommended dose rate.

Resistance can be prevented or delayed by using products with different modes of action either tank mixed or used in alternate years.

No more than one application of ALS inhibiting herbicides with claims for the control of grass weeds should be applied for grass weed control.

BROADWAY SUNRISE is a product with an ALS inhibitor mode of action (HRAC group B). Strains of some annual grasses (e.g. blackgrass, wild oats and Italian ryegrass) have developed resistance to herbicides which may lead to poor control. A strategy for preventing and managing such resistance should be adopted. Guidelines have been developed by Weed Resistance Action Group and copies are available from the HGCA, CPA, your distributor, crop adviser or product manufacturer.

BROADWAY SUNRISE at 3.5 L/ha + authorised adjuvant should be applied as a foliar application as part of a programme of residual activity products. Control may be reduced if BROADWAY SUNRISE + authorised adjuvant is applied alone.

## MANAGEMENT OF RESISTANT GRASS WEEDS

For good resistance management and where resistance is known or suspected to be present to substituted ureas, dinitroanilines or ACCase inhibitors the following is recommended.

1. Good cultural techniques such as drilling date and seedbed preparation should be adopted. See WRAG guidelines.
2. Use only as part of a resistance management strategy that includes cultural methods of control and does not use ALS inhibitors as the sole chemical method of grass-weed control.
3. To avoid the build up of resistance do not make more than one application of ALS inhibiting herbicides with claims for the control of grass weeds to any crop.
4. Use mixtures of herbicides with different modes of action at full-recommended dose rates.
5. Apply herbicides at optimum timing and environmental conditions.
6. The recommended use of this product is a programme of residual products with a foliar application of BROADWAY SUNRISE at 3.5 L/ha + an adjuvant. Where weather conditions have prevented an application of BROADWAY SUNRISE + adjuvant in the autumn a spring application can be made provided that it is used as part of a planned programme of products utilising different modes of action. Contact Dow AgroSciences for recommended programmes.

## FOLLOWING CROPS

Crops following a normal harvest that can be sown after a crop treated with BROADWAY SUNRISE:

Autumn: Winter wheat, winter barley, winter oats, rye, triticale, oilseed rape, grass, winter beans, brassica plants as transplants

Spring: Spring wheat, spring barley, spring oats, triticale, rye, spring oilseed rape, sugar beet, potatoes, grass, clover (as part of a grass/clover ley), beans, peas, maize, linseed, brassica plants as transplants, carrots, parsnips

Where ryegrass is drilled following a very dry season, plough or cultivate to at least 15 cm.

Following a sequence of BROADWAY SUNRISE and metsulfuron-methyl, treated ground should be ploughed or cultivated to a depth of 15 cm before establishing winter oilseed rape.

## CROP FAILURE

In the event of a crop failure after a crop has been treated with BROADWAY SUNRISE sow only spring wheat, spring barley or maize. A minimum interval of 5 months must elapse between application of BROADWAY SUNRISE and re-drilling. Prior to re-sowing, soil should be ploughed or cultivated to a depth of at least 15 cm.

## RATE OF USE

BROADWAY SUNRISE should be applied at 3.5 L/ha with an authorised adjuvant at the manufacturers' recommended rate.

## ADJUVANTS

Authorised adjuvants are esterified and methylated rapeseed types, and those containing alkoxyated fatty amines, polyoxyalkylene glycol and alcohol ethoxylates.

## CROPS

BROADWAY SUNRISE + an authorised adjuvant can be used on all varieties of winter wheat, winter rye and triticale.

## TIMING

BROADWAY SUNRISE + an authorised adjuvant should be applied from 1 leaf (Zadoks 11) to before pseudo stem erect stage (Zadoks 30).

BROADWAY SUNRISE + an authorised adjuvant must be applied during periods of active growth i.e. warm temperatures and moist conditions.

## SPRAY PROGRAMMES

Where blackgrass is the main problem, BROADWAY SUNRISE at 3.5 L/ha + authorised adjuvant should be applied as a foliar application as part of a programme of residual activity products. Control may be reduced if BROADWAY SUNRISE + authorised adjuvant is applied alone.

Only one application of BROADWAY SUNRISE + an authorised adjuvant in a spray programme may be made. Where BROADWAY SUNRISE is used in a spray programme with another pendimethalin containing product, care should be taken to ensure the maximum permitted amount of pendimethalin is not exceeded.

Sequences should only be applied within the label recommendations of every product in the sequence.

Recommended pre-emergence residual products include:  
 Approved formulations of pendimethalin (MAPP 13405, 13406, 13441, 13442, 13815, 13816, 13859, 14664, 14712, 15761)  
 Approved formulations of pendimethalin + flufenacet (MAPP 13914, 13930, 13924, 14106, 15206)  
 Approved formulations of flufenacet + diflufenican (MAPP 15353, 14826, 15206, 16195)  
 Approved formulations of prosulfocarb (MAPP 16202, 16203, 16204, 16209)

## WEED SUSCEPTIBILITY AND MAXIMUM SIZE CONTROLLED

An application of BROADWAY SUNRISE + an authorised adjuvant at the manufacturers recommended rate will give the following control:

Weed species	Rate L/ha*	Optimum timing	Susceptibility
Blackgrass	3.5	Apply to actively growing plants up to 4 tillers	MS
Wild oats	3.5	Apply to actively growing plants up to end of tillering	S
Ryegrass (from seed)	3.5	Apply to actively growing plants up to end of tillering	S
Sterile brome	3.5	Apply to actively growing plants up to 4 tillers	S
Charlock	3.5	Apply to actively growing plants up to 6 true leaves	S
Cleavers	3.5	Apply to actively growing plants up to 75 mm	MS
Common chickweed	2.8	Apply to actively growing plants up to 100 mm	S
Common field speedwell	3.5	Apply to actively growing plants up to 6 true leaves	S
Field Pansy	2.8	Apply to actively growing plants up to 4 true leaves	S
Geranium spp	3.5	Apply to actively growing plants up to 8 true leaves	S
Ivy-leaved speedwell	2.8	Apply to actively growing plants up to 6 true leaves	S
Mayweed spp	3.5	Apply to actively growing plants up to 8 true leaves	S
Volunteer oilseed rape	3.5	Apply to actively growing plants up to 6 true leaves	S

\*Where grass weeds are present, rates of BROADWAY SUNRISE lower than 3.5 L/ha should not be used.

## JOINT APPLICATION

A joint application is the use of a product in tank mixture or sequence with another product.

**IMPORTANT NOTE:** Joint applications should only be made within the label recommendations of every product in the application.

BROADWAY SUNRISE may be applied in joint application (**tank mixture or sequences**) to the same cereal crop with **one** of the following ALS products:

Absolute <sup>1,2</sup>	Hiker
Alias	Hunter
Alias SX	Inka SX
Ally Express	Jubilee SX
Ally Max SX	Lexus SX <sup>1,2</sup>
Ally SX	Lorate
Answer SX	Mozaic SX
Avro SX	Oklar SX
Barton WG	Oriel 50SX
Biplay SX	Parana
Boxer	Pennant
Bullion <sup>1,2</sup>	Pinnacle
Calibre SX	Presite SX
Chimera SX	Quantum SX
Cleancrop Mondial	Ratio SX
Concert SX	Refine Max SX
Dakota	Seduce
Ductis SX <sup>1,2</sup>	Simba SX
Excalibur <sup>1,2</sup>	Slalom
Exceed SX <sup>1,2</sup>	Spitfire
Finish SX	Staka SX <sup>1,2</sup>

Galaxy	Starane Gold
Gartrel	Starane Vantage
GF-184	Starane XL
Gropper SX	Taxi
Jubilee SX	Thor
Harmony M SX	Traton SX
Harmony SX	Triad

<sup>1</sup> When used at 5-10 g/ha flupyr-sulfuron-methyl - Approved as a tank-mixture only. Apply only where application may be made within the label recommendations of each product in the mixture. Where used for the control of Blackgrass application must only be made after an application of a pre-emergence residual herbicide and should also be mixed with a grassweed product with an alternative mode of action e.g. Broadway Sunrise + flupyr-sulfuron-methyl containing product + a grassweed product with an alternative mode of action. Use in sequence is not authorised.

<sup>2</sup> When used at up to 5 g/ha flupyr-sulfuron-methyl – approved as tank-mixture and sequence. Maximum of 5 g/ha flupyr-sulfuron-methyl permitted.

Apart from these specific joint applications BROADWAY SUNRISE must NOT be applied with any other product containing an ALS inhibitor, for example mesosulfuron-methyl, iodosulfuron or amidosulfuron. These sequences must only be used with a robust non-ALS inhibitor autumn herbicide programme. This is especially important where both products are applied in the spring. Do not apply other products containing ALS inhibitors in sequence with BROADWAY SUNRISE for the control of common chickweed in order to avoid increased selection for herbicide resistant individuals.

Following a joint application of BROADWAY SUNRISE and metsulfuron-methyl, treated ground should be ploughed to a depth of 15 cm before establishing winter oilseed rape.

## SEQUENTIAL APPLICATION

When BROADWAY SUNRISE has been applied in tank-mixture with a flupyr-sulfuron-methyl containing product for the control of blackgrass a further ALS containing product may be applied in **sequenced** application (i.e. as **separate applications on two separate occasions to the same crop**) to the same cereal crop with **one** of the following ALS products:

Alias	Hunter
Alias SX	Inka SX
Ally Express	Jubilee SX
Ally Max SX	Lorate
Ally SX	Mozaic SX
Answer SX	Parana
Avro SX	Pennant
Barton WG	Pinnacle
Biplay SX	Presite SX
Boxer	Quantum SX
Calibre SX	Ratio SX
Chimera SX	Refine Max SX
Cleancrop Mondial	Seduce
Concert SX	Simba SX
Dakota	Stalom
Finish SX	Spitfire
Galaxy	Starane Gold
Gartrel	Starane Vantage
GF-184	Starane XL
Jubilee SX	Taxi
Gropper SX	Thor
Harmony M SX	Traton SX
Harmony SX	Triad
Hiker	

## **SOIL**

BROADWAY SUNRISE may be used on all soil types. On light soils some crop vigour effects may be observed. These are transient symptoms and will not affect crop yield but a slight yield reduction may be experienced when applied to winter rye grown on light or sandy soil types.

## **APPLICATION**

BROADWAY SUNRISE + an authorised adjuvant should be applied through tractor-mounted hydraulic sprayers providing they are in good working order and have been calibrated according to the manufacturers' recommendations and as advised by NRoSO (National Register of Sprayer Operators).

## **WATER VOLUME**

Apply BROADWAY SUNRISE + an authorised adjuvant in 100 to 250 litres of water per hectare. The lower volume must only be used in open crops on small weeds.

## **SPRAY QUALITY**

Apply BROADWAY SUNRISE as a FINE to MEDIUM spray as defined by the BCPC system. Nozzles that deliver a COARSE droplet size e.g. Air Inclusion types are not recommended as product performance may be reduced.

## **MIXING**

Use only clean water for mixing. Half fill the spray tank with water and add the required amount of BROADWAY SUNRISE. Fill up the spray tank, agitating continuously to ensure thorough mixing, and maintain agitation until spraying is complete.

## **TANK CLEANING**

To avoid subsequent injury to crops other than cereals, all spraying equipment must be thoroughly cleaned both inside and out, using All Clear Extra spray cleaner as follows:

1. Immediately after spraying, drain tank completely. Any contamination on the outside of the spraying equipment should be removed by washing with clean water.
  2. Rinse inside of tank with clean water and flush through booms and hoses using at least one tenth of the spray tank volume. Drain tank completely.
  3. Half fill tank with clean water and add All Clear Extra at the recommended rate. Agitate and then briefly flush the boom and hoses with the cleaning solution. Top up with water making sure the tank is completely full and allow to stand for 15 minutes with agitation. Flush the boom and hoses and drain tank completely.
  4. Nozzles and filters should be removed and cleaned separately with All Clear Extra solution containing 50 ml of All Clear Extra per 10 litres of water.
  5. Rinse the tank with clean water and flush through the boom and hoses using at least one tenth of the spray tank volume. Drain tank completely.
  6. For disposal of washings, follow Code of Practice for the Using Plant Protection Products. Do not spray onto sensitive crop or land intended for cropping with sensitive crops.
- Note:** If it is not possible to drain the tank completely, step 3 must be repeated before going onto step 4.

## **DOW AGROSCIENCES CONDITIONS OF SUPPLY**

All goods supplied by us are of high grade and we believe them to be suitable but, as we cannot exercise control over their storage, handling, mixing or use, or the weather conditions before, during or after application which may affect the performance of the goods, all conditions and warranties, statutory or otherwise, as to the quality or fitness for any purpose of our goods are excluded. No responsibility will be accepted by us or re-sellers for any failure in performance, damage or injury whatsoever arising from their storage, handling, application or use. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in the use of such goods.

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## HERBICIDE

Product Registration Number: 14960.

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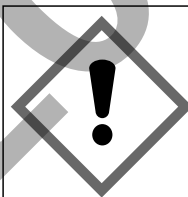
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**Product Identifier according to Art.18 of Reg. (EC) No 1272/2008 (CLP):**  
Broadway<sup>®</sup> Sunrise; Pyroxulam;  
Pendimethalin; Cloquintocet-mexyl

**WARNING**  
Causes skin irritation  
May cause an allergic skin reaction.  
Very toxic to aquatic life with long lasting effects.

Wear protective gloves/clothing/eye/face protection.

IF ON SKIN: Wash with plenty of soap and water.

Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

Contains pyroxulam and cloquintocet-mexyl. May produce an allergic reaction.

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