



POD  CEAL[®]

Retains Yield Potential and Quality in Pod Bearing and Grass Seed Crops

AGRICULTURAL

PRODUCT COMPOSITION: Polymer of Cyclohexane, 1 methyl-4 (1-methylethyl)

**READ THE LABEL BEFORE USING
KEEP OUT OF REACH OF CHILDREN**

Net Contents: 2 ½ Gallons

**Manufactured By:
MILLER CHEMICAL & FERTILIZER, LLC
P.O. Box 333
Hanover, Pennsylvania 17331, U.S.A.**

DIRECTIONS FOR USE

Crop	Timing	Rate per Acre
Alfalfa and Birdsfoot Trefoil (for seed production)	1. When earliest maturing curls are turning lime-green to yellow green	1 ¼ pints
	2. In Combination with desiccant	(a) 1 ½ pints if application (1) NOT made. (b) ¾ pint if application (1) WAS made.
Edible Dry Beans	1. Apply when crop is mature and at least 80% of the pods are yellowing but pliable. There should be no more than 30% of the leaves STILL PRESENT. May be combined with a desiccant.	1 pint
Grass Seed	Apply beginning 3 to 4 days before the end of flowering, and ideally no later than a week after the end of flowering (provide the seed head may be tapped firmly on the palm of the hand without significant seed loss).	1 ¼ pints
Lentils and Peas	Apply when a majority of the pods are light green and the outline of the seed may be seen through the pod case. May be combined with a desiccant.	1 pint
<i>DIRECT HARVESTING</i> BRASSICA SEED CROPS (to be directly combined without swathing or chemical desiccation)	DIRECT HARVESTING: Apply when the majority of the pods have lost their intense green color. At this time, the pod is still pliable and may be bent without splitting open to release the seed. Varieties that mature slowly may benefit more from a later application when pods are yellow but still pliable. Allow the crop to fully mature before attempting to harvest.	1 pint
BRASSICA SEED CROPS (to be swathed or chemically desiccated)	SWATHING: Apply when the majority of the pods have lost their intense green color. At this time, although yellow, the pod is still pliable and may be bent without splitting open to release the seed. DO NOT apply more than 2 to 3 weeks before swathing.	¾ - 1 pint
Wild Rice	TIMING FOR YOUR LOCATION CAN BE OBTAINED BY CONTACTING YOUR LOCAL REPRESENTATIVE	GEOGRAPHICAL MILLER 1 ¼ pints
Vegetable Seed Crops	TIMING FOR YOUR LOCATION CAN BE OBTAINED BY CONTACTING YOUR LOCAL REPRESENTATIVE	GEOGRAPHICAL MILLER -----
Soybeans (for seed production), Soybeans (for processing), Mung Beans	TIMING FOR YOUR LOCATION CAN BE OBTAINED BY CONTACTING YOUR LOCAL REPRESENTATIVE	GEOGRAPHICAL MILLER ½ pint
Small Grains (Cereals)	TIMING FOR YOUR LOCATION CAN BE OBTAINED BY CONTACTING YOUR LOCAL REPRESENTATIVE	GEOGRAPHICAL MILLER 1 – 1 ½ pints

GENERAL INFORMATION

POD CEAL is a harvest management tool that helps improve yield capture and crop quality. **POD CEAL** reduces the intrusion of moisture into the pod as the crop matures. This reduction in moisture intrusion can benefit the crop when it is exposed to rains or heavy dews during the final stages of development and dry down. **POD CEAL** can help maintain grade quality and or reduce pod shatter to provide a longer harvest window by reducing the effects of moisture intrusion into the pod structure during dry down.

POD CEAL binds to the pod's natural waxes and helps limit the intrusion of moisture from rain or dew from entering the pod, while still letting internal moisture out. This reduces the strain on the pod structure and allows the sutures holding the pod halves together to remain intact. Maintaining the integrity of the pod structure allows the seed to fully develop, facilitating delayed swath and/or direct harvesting strategies. The benefits of minimizing water intrusion into the pod are improved seed quality, less staining and seed loss and reduced seed sprouting in the pods.

SEED BRASSICAS. (INCLUDING CANOLA)

A: CROPS TO BE DIRECT COMBINED WITHOUT CHEMICAL DESICCATION

Apply **POD CEAL** at 1 pint per acre within the timings recommended for DIRECTIONS FOR USE. Allow the crop to fully mature before attempting to combine. Monitor seed moisture levels and be prepared to take the crop when seed moisture levels reach 11%.

B: CROPS TO BE DIRECT COMBINED WITH CHEMICAL DESICCATION

Providing that a majority of the pods are still sufficiently pliable to be bent into a circle without splitting an application of **POD CEAL** may be of benefit in combination with a desiccant.

C: CROPS TO BE SWATHED

Apply **POD CEAL** after a majority of the pods have lost their intense green color and the outline of the seed is visible through the pod case and UP to the time at which the pod, although yellow, is still pliable and may be bent into a " V " shape or circle without splitting open to release seed. Swathing may be made less risky and the loss in yield from the killing off of immature pods reduced. Because **POD CEAL** coats the pod, swathing may be carried out 7 to 14 days later than is normal. The use of **POD CEAL** allows the timing to be later within the optimum swathing window without causing the loss of mature pods. DO NOT apply more than 3 weeks before swathing.

DIRECT HARVEST GUIDELINES

The following are some key steps to consider when direct harvesting your canola. This decision and process should start before planting, to give you the maximum return on your investment.

SETTING YOUR EXPECTATIONS

POD CEAL and direct harvesting are management tools to help increase your profits. They are not silver bullets and need some careful consideration and management to reach their optimum potential.

VARIETY SELECTION

Choosing a variety that will give you the best stand and knit together may help reduce pod loss. Growers have reported varying degrees of pod drop on different varieties. Currently we do not have enough data to make specific variety recommendations.

WINDROWING VS DIRECT HARVESTING

If the conditions are favorable for delayed windrowing, not direct harvesting (thin stand, hail damage) make sure that you do not pass the point of no return. If delayed windrowing is causing too much plant damage it is probably better to leave it stand and direct harvest the crop. If you must windrow, try to do it when moisture conditions will help reduce pod loss (dew, light rain).

HEADER TYPE AND SET UP

All header types have been shown to be usable for direct harvesting (auger and draper fronts). Managing and adjusting your header angles to suit your crop must be done to suit your crop conditions.

Some tips on header set up include:

1. Tilt the table forward may help feeding.
2. Pushing the reel back from the knife and high (fingers preferred and spaced wide).
3. Reel speed to match ground speed.
4. Lower fan speeds reduce seed losses from the back of the header.
5. Ground speed should be slow enough to prevent shattering at the cutter bar.
6. Best crop separation occurs when pods are slightly moist so consider harvesting during the early morning or late afternoon/evening.
7. If a pea auger is on your header, it may help to turn this on.

HARVEST MONITORING

A good way to collect a canola sample in a standing field is to perform a bag test. Strip pods from 15 to 20 plants from around the field and put them into a bag or pouch. Rough up the bag to break open the pods. Remove the straw and chaff to collect your canola sample.

HARVEST TIMING

When the canola is 10% moisture, it's time to harvest! Standing Canola should be your top priority when it is ready. The pods may feel tough, and the stalks will probably show some green. This is the optimum time to harvest your canola, when the seeds are ready, not when the plant is dry. Dry plants can lose more seed to shatter and pod drop. Very dry canola will have a greater chance of shattering, and does not feed as well into the header.

POD CEAL mitigates risks associated with these types of harvest systems. It cannot however eliminate these risks, Proper harvest management is the key to success with these harvest systems and **POD CEAL**.

EDIBLE BEANS, LENTILS AND PEAS

Apply **POD CEAL** when a majority of the pods have turned light green and the seed outline may be seen through the pod case.

Depending on the crop and desiccant used it may be combined with the desiccant. Check with your local chemical dealer or Miller Chemical representative.

POD CEAL minimizes moisture intrusion. Under wet conditions, crop dry down may be improved as the pod absorbs less water when treated with **POD CEAL** potentially allowing you to resume harvesting sooner.

POD CEAL can help reduce pod shatter on pulse and bean crops due to rapid expansion and contraction of the pod case seam. **POD CEAL** cannot eliminate mechanical shatter.

APPLICATION VOLUME PER ACRE

GROUND: Apply in **sufficient water** to insure thorough coverage of pods. Minimum rate is 20 gallons of water per acre.

AIR: Apply in **sufficient water** to insure thorough coverage of pods. Minimum rate is 5 gallons of water per acre.

OVERHEAD IRRIGATION APPLICATIONS: When applying **POD CEAL** through sprinkler irrigation systems, increase the recommended rate by 25%, and add at the last set.

NOTE: CROP CANOPY PENETRATION IS ESSENTIAL!

Coverage of the pod structure with **POD CEAL** is essential to obtain the most satisfactory results. Sufficient water to achieve maximum coverage of the pods is critical.

TIMING OF APPLICATION

NOTE: Pod maturity / senescence may develop rapidly once pods commence and begin turning yellow. A very considerable advance towards ripening and being beyond treatment with **POD CEAL** may occur very

quickly (one or two days), especially in hot dry weather. **BE EARLY rather than late in making an application. Crops treated with POD CEAL and harvested after the optimal time may still suffer some seed loss.**

The following Factors affect the activity of **POD CEAL** and its ability to reduce moisture intrusion and reduce pod shatter:

1. **Bird attack:** Typically birds attack the earliest ripening pods leaving clusters of pods that have an untidy, feathery appearance. Birds may also trample and attack lodged crops.
2. **Insects:** Look for a hole in the pod. **POD CEAL** can help a little but once insects get in the pods, the pods cannot be effectively coated by **POD CEAL**.
3. **Fungal disease:** Diseases that develop before the application of **POD CEAL** can reduce its effectiveness by destroying the coating.
4. **Plants senescing prematurely:** Attack by pests or disease which cause the plant to die very rapidly and prematurely will result in shatter.
5. **Harvest:** Crops treated with **POD CEAL** and harvested after the optimal time may suffer seed loss.
6. **Weather:** **POD CEAL**'s effectiveness may be reduced as a result of adverse weather conditions that involve hail, storms, heavy rain or strong wind conditions. **POD CEAL** reduces shatter but does not eliminate it completely.

TANK MIXING WITH ADJUVANTS

Do not mix with hot water (above 100° F).

POD CEAL does not replace adjuvants. Adjuvants however may affect the film forming capabilities of the polymer. Use the lowest labeled adjuvant rate whenever **POD CEAL** is tank mixed with another chemical whose labels request the use of an adjuvant.

PRECAUTIONS

WIND SHATTER: **POD CEAL** will help minimize shatter loss on pods which remain intact on the stalk. Uneven plant growth which leaves a portion of the crop fully exposed to wind gusts may still experience a degree of shatter.

ADVERSE WEATHER: **POD CEAL** will help reduce the degree of shatter loss due to rain events, but not completely eliminate shatter. **POD CEAL** will not eliminate shatter due to hail or other environmental events.

MIXING:

Remove filter and add **POD CEAL** to a half-filled spray tank while agitating, continue agitating while filling and spraying. Tank, lines and nozzles should be rinsed with water immediately after spraying. Fungicides, insecticides and desiccants are compatible and may be used in tank mixtures with **POD CEAL**.

Use this product in accordance with good agronomic practices, which include utilizing proven spray equipment set for proper coverage. Do not make applications when temperatures are too hot. Applications should be made at temperature levels and when other environmental conditions in your area are such that your experience indicates the application will be compatible and will accomplish the desired result.

STORAGE: Store only in original container, in a cool dry place inaccessible to children, pets, and domestic animals. Keep container tightly closed when not in use. **POD CEAL** is not affected by freezing.

FIRST AID: IF IN EYES: Hold eyelids open and flush with a steady stream of water for 15 minutes. Contact a poison control center or physician. IF ON THE SKIN: Wash with plenty of soap and water. Contact a poison control center or physician. IF INHALED: Remove to fresh air. Contact a poison control center or physician. IF INGESTED: Contact a poison control center or physician immediately as with ingestion of any non-food product.

MILLER LIMITED WARRANTY:

Miller warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Miller. In no case shall Miller be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer. MILLER MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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