Approve®

Herbicide

AGRICULTURAL

GROUP	4	6	HERBICIDES

WARNING POISON

CAUTION - EYE IRRITANT
CAUTION - SKIN IRRITANT

Nufarm Agriculture Inc.
5507 1st Street SE
Calgary, Alberta T2H 1H9
1-800-868-5444

24 Hour Emergency Response Number
1-800-424-9300

Approve ® is a registered trademark
of Nufarm Limited

EMULSIFIABLE CONCENTRATE

GUARANTEE:
Bromoxynil,
present as octanoic ester . . . 225 g/L
2,4-D,
present as 2-ethylhexyl ester . . . 225 g a.e./L

KEEP OUT OF REACH OF CHILDREN

READ THE LABEL AND BOOKLET BEFORE USING.

For use in Spring Wheat and Barley.

REGISTRATION NO. 28123
PEST CONTROL PRODUCTS ACT

Nufarm

PRECAUTIONS:
HARMFUL OR FATAL IF SWALLOWED. MAY IRRITATE EYES AND SKIN. KEEP OUT OF REACH OF CHILDREN. Avoid contact with skin, eyes and clothing. Wash concentrate from skin or eyes immediately. Avoid working in spray mist. After use wash hands and other exposed skin. Avoid contamination of ponds, streams, rivers and other water sources. Avoid spray drift onto crops other than those recommended. Store the container tightly closed away from seeds, feeds, fertilizer, plant and foodstuffs.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at: www.croplife.ca.

PROTECTIVE CLOTHING AND EQUIPMENT:
Handling the concentrate (mixing and loading): All handlers must wear coveralls over a long-sleeved shirt, long pants and chemical resistant gloves, socks, shoes. Wear protective eye wear (face shield or safety glasses) and chemical resistant nitrile gloves when handling product concentrate, e.g. Edmont Sol-Vex # 37-155/# 37-145 or Pioneer A-15. Rinse gloves before removal. Coveralls should also be worn when open pouring from containers.

When handling more than 1178 L of Approve Herbicide per day (approximately 950 ha at highest agricultural rate - 1.24 L/ha), workers must also use a closed system.

Handling the dilute spray solution (during application or repairing or cleaning equipment): All handlers must wear coveralls over a long-sleeved shirt, long pants and chemical resistant gloves, socks, shoes. Gloves which are in good condition must be worn when mixing/loading, spraying and during cleanup and repair. Rinse gloves before removal. Gloves are not required during application when applicator is in an enclosed tractor or in an enclosed airplane cockpit.

Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

After using this product, remove clothing and launder separately and promptly and thoroughly wash hands and exposed skin with soap and water. Follow manufacturer's instructions for cleaning personal protective clothing and equipment. If no such instructions for washables are provided, use detergent and hot water. Keep and wash personal protective equipment separate from household laundry. Wear freshly laundered clothing and clean protective equipment daily.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. DO NOT reuse them.

DO NOT apply this product in a way that this product will contact workers or other persons, either directly or through drift. Only handlers wearing personal protective equipment may be in the area being treated during application.

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Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature, application equipment and sprayer settings.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

TRANSFER SYSTEM:
For containers larger than 20 L: Use a closed pump transfer system that avoids open pouring when transferring the liquid concentrate from such containers into the spray tank.

ENVIRONMENTAL HAZARDS:
This product contains a petroleum distillate which is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during application. Do not contaminate these systems through direct application, disposal of waste or cleaning equipment. Toxic to small mammals, birds, aquatic organisms and non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE. This product will harm other broadleaved plants in the vicinity of the treatment area. Do not directly spray or allow the spray to drift onto ornamentals or gardens.

Leaching: The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g. sandy soil) and/or the depth to the water table is shallow.

Runoff: To reduce runoff from treated areas into aquatic habitats avoid application to areas with moderate to steep slope, compacted soil, or clay.
Avoid application of this product when heavy rain is forecast.
Contamination of aquatic areas as a result of runoff may be reduced by including a strip of untreated vegetation between the treated area and the edge of the water body.
Do not irrigate within 24 hours after application.

FIRST AID:
If Swallowed: Call a poison control centre or doctor immediately for treatment advice. Do not give **any** liquid to the person. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

If in Eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

If on Skin/Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control centre or doctor for further treatment advice.

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Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION:
Contains petroleum distillates at greater than 10% - vomiting may cause aspiration pneumonia. This product may cause mild irritation to the eyes. Overexposure to 2,4-D may cause coughing, burning, dizziness or temporary loss of muscle coordination. Other possible effects of overexposure include fatigue, muscle weakness or nausea. Treat symptomatically.

STORAGE CONDITIONS:
APPROVE Herbicide formulation will solidify at temperatures below –20ºC but will become useable at temperatures above 0ºC. Insecticides and fungicides should be separated from herbicides so as to prevent the possibility of cross contamination. Shake well before using.

DISPOSAL:
For Recyclable Containers:
Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.

2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For Returnable Containers:
Do not reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

For Returnable-Refillable Containers:
For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

EMERGENCY TELEPHONE NUMBERS:
For spills or transportation accidents, Chemtrex, 1-800-424-9300.
For health or environmental emergencies, Prosar, 1-877-325-1840.
For product and use information, Nufarm Agriculture Inc., 1-800-868-5444.

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NOTICE TO USER:
This pest control product is to be used only in accordance with the directions on the label. It is an offence under the PEST CONTROL PRODUCTS ACT to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

DIRECTIONS FOR USE:
DO NOT apply this product directly to freshwater habitats such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands, estuaries or marine habitats.

DO NOT contaminate irrigation/drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

Tank mixes with chemical additives, pesticides or fertilizers not listed on this label may be physically incompatible, may cause unacceptable crop effects or may result in unacceptable weed or pest control. Contact Nufarm Agriculture Inc. at 1-800-868-5444 for more information.

RESISTANCE MANAGEMENT RECOMMENDATIONS:
For resistance management, APPROVE Herbicide is a Group 4 and 6 herbicide. Any weed population may contain or develop plants naturally resistant to APPROVE Herbicide and other Group 4 and 6 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance:
- Where possible, rotate the use of APPROVE Herbicide or other Group 4 and 6 herbicides with different herbicide groups that control the same weeds in a field
- Use tank mixtures with herbicides from a different group when such use is permitted.
- Herbicide use should be based on an IPM program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical), cultural, biological and other chemical control practices.
- Monitor treated weed populations for resistance development.
- Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information and to report suspected resistance, contact Nufarm Agriculture Inc. company representatives at 1 800-868-5444 or at www.nufarm.ca

AERIAL APPLICATION:
Apply only by fixed-wing or rotary aircraft equipment that has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rate and conditions of this label.

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DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply when wind speed is greater than 16 km/h at flying height at the site of application. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) coarse classification.
To reduce drift caused by turbulent wingtip vortices, the nozzle distribution, along the spray boom length MUST NOT exceed 65% of the wing- or rotorspan.

Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.

Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices. No human flaggers are permitted.

Use Precautions:
Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. Apply only under conditions of good practice specific to aerial application as outlined in the National Aerial Pesticide Application Manual, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

Do not apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas. Specified buffer zones should be observed.

Coarse sprays are less likely to drift, therefore, avoid combination of pressure and nozzle type that will result in fine particles (mist). Do not apply during period of dead calm or when wind velocity and direction pose a risk of spray drift. Do not spray when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

Operator Precautions:
Do not allow the pilot to mix chemical to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.

It is desirable that the pilot have communication capabilities at each treatment site at the time of application.

The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.

All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

Product Specific Precautions:
Read and understand the entire label before opening this product.

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If you have questions, call the manufacturer or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

Volume: APPROVE Herbicide must be applied in volume rates of not less than 30 L/ha. For best results when there is a heavy crop canopy, or when the majority of the weeds are cow cockle, smartweed or pigweed, a volume rate of 40 L/ha is recommended.

Buffer Zones: Appropriate buffer zones should be established between treatment areas and aquatic systems and treatment areas and significant wildlife habitat.

GROUND SPRAYER:
Wash the tank and clean all filters, screens and tips. Select nozzle tips to apply the recommended volume per hectare. Flood jet type tips are not recommended. Adjust boom height to ensure uniform coverage of the weeds. For ground applications, spray at 5 to 10 kph. Ensure that all tips are in good condition and spraying the same volume.

DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) coarse classification. Boom height must be 60 cm or less above the crop or ground.

Buffer Zones to Protect Sensitive terrestrial and Aquatic Habitats:
The buffer zones specified in the tables below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands), and estuarine/marine habitats. Seasonal water bodies require buffer zones if there is water in them during application. Water bodies which do not fill on an annual basis need not be buffered.

Method of Application	Crop		Buffer Zones (metres) Required for the Protection of:				
			Freshwater Habitat of Depths		Estuarine/Marine Habitats of Depths		Terrestrial Habitat
			Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	
Field Sprayer*	Field crops (wheat and barley)		1	1	1	1	1
Aerial	Field crops (wheat and barley)	Fixed wing	20	5	1	1	55
		Rotary wing	20	3	1	1	45

* For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled buffer zone can be reduced by 70%.

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When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labelled buffer zone can be reduced by 30%. When a tank mixture is used, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.

USE PRECAUTIONS:
Avoid spray drift unto any desirable vegetation NOT listed on this label as damage may occur. Avoid contamination of ponds, streams, rivers, lakes and other water sources. Do not spray during periods of high winds when spray is likely to drift. Coarse sprays are less likely to drift. Do not spray during periods of high temperatures when crops may be under stress or damage to the crop may occur.

TIMING:
For best results spray when weeds are in the seedling stage. Apply in good growing conditions. Application must be made before the crop shields the weeds.

MIXING:
Half fill the tank with clean water. Add the required amount of APPROVE Herbicide and agitate thoroughly. Fill the tank and agitate again before use.

SPRING WHEAT AND BARLEY (not underseeded to legumes)
SPRAY VOLUME AND PRESSURE: For ground application, apply in 50 to 100 L of water per hectare at a pressure of 275 kPa. For aerial application, see AERIAL APPLICATION section.

TIMING: Spring and durum wheat and barley may be treated from the 4-leaf stage until the early flag leaf stage. Application before the 4-leaf stage may injure the crop. Do not apply more than one treatment per year.

APPLICATION RATE: 1.24 L/ha (one 10 L container treats 8.06 ha, or 20 acres), for both aerial and ground applications

PRE-HARVEST INTERVALS:
Do not permit livestock to graze fields within 30 days after application.
Do not harvest forage or cut for hay within 30 days after application.
Withdraw meat animal from treated fields at least 3 days before slaughter.

RE-ENTRY INTERVAL: DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

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WEEDS CONTROLLED:

Common Name	Leaf Stage*
American nightshade	4-leaf
Ball mustard	4-leaf
Bluebur	4-leaf
Cocklebur	4-leaf
Common buckwheat	4-leaf
Common groundsel	8-leaf
Common ragweed	4-leaf
Cow cockle	4-leaf
Flixweed	4-leaf
Green smartweed	4-leaf
Kochia	5 cm high (1- to12-leaf)
Lady's-thumb	4-leaf
Lamb's-quarters	8-leaf
Night-flowering catchfly	4-leaf
Pale smartweed	4-leaf
Redroot pigweed	4-leaf
Russian thistle	5 cm high (2- to12-leaf)
Shepherd's-purse	4-leaf
Stinkweed	8-leaf
Tartary buckwheat	8-leaf
Triazine resistant pigweed	4-leaf
Velvetleaf	8 cm high
Volunteer canola	4-leaf
Volunteer sunflower	4-leaf
Wild buckwheat	8-leaf
Wild mustard	8-leaf

*Weeds can be controlled up to the recommended stage.

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TANK MIXTURES:
Follow all precautions, limitations, timing recommendations, crop rotations and sprayer cleanup on the tank mix partner product label.

APPROVE Herbicide + Achieve Liquid Herbicide

Weeds Controlled:	See WEEDS CONTROLLED table for APPROVE Herbicide plus those weeds listed on the Achieve Liquid Herbicide label.
Treatment Stage:	Spring and durum wheat or barley may be treated from the 4-leaf until the early flag leaf stage of growth. Application before the 4-leaf stage may injure the crop.
Spray Volume & Pressure:	Apply in 50 to 100 litres of water per hectare at 275 kPa. For aerial application, see AERIAL APPLICATION section.
Application Rate:	1.24 L/ha APPROVE Herbicide + Achieve Liquid Herbicide at 0.5 l/ha. When using this tank mixture, add Turbocharge adjuvant to the spray tank at a concentration of 0.5% v/v (ie. 0.5 L of Turbocharge per 100 L of spray solution).

Note: APPROVE Herbicide + Achieve Liquid Herbicide tank-mixtures can be used in all varieties of spring wheat and all 2 or 6 row varieties of barley (malting and feed varieties). Only apply this mixture to spring wheat and barley that is not underseeded to legumes.

APPROVE Herbicide + Avenge 200-C

Weeds Controlled:	See WEEDS CONTROLLED table for APPROVE Herbicide plus those weeds listed on the Avenge 200-C label.
Treatment Stage:	Spring wheat or barley may be treated from the 4- to 6-leaf stage of growth and when Wild Oats are at the 3- to 5-leaf stage.
Spray Volume & Pressure:	Apply in 100 litres of water per hectare at 275 kPa.
Application Rate:	1.24 L/ha APPROVE Herbicide + Avenge 200-C at 3.5-4.25 L/ha.

Note: APPROVE Herbicide should be added to the spray tank first, agitated, then add Avenge 200-C. Avenge 200-C can only be applied to certain varieties of spring wheat. Refer to the Avenge 200-C label. DO NOT APPLY BY AIR.

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APPROVE Herbicide + Everest Solupak 70

(For use in Manitoba, Saskatchewan, and Alberta plus the Peace River Region of British Columbia)

Weeds Controlled:	See WEEDS CONTROLLED table for APPROVE Herbicide plus those weeds listed on the Everest Solupak 70 label.
Treatment Stage:	Spring wheat may be treated at the 4- to 6-leaf stage of growth (4-leaf on the main stem, plus 2 tillers).
Spray Volume & Pressure:	Apply in 50-100 litres of water per hectare at 207 to 345 kPa.
Application Rate:	1.24 L/ha APPROVE Herbicide + Everest Solupak 70 at 43g/ha + 0.25% v/v of one of the following surfactants: Surf 92, Super Spreader, LI 700 Penetrating Surfactant, Agral 90, Ag-Surf.

Note: Everest Solupak 70 should be added to the spray tank first, agitated, then add APPROVE Herbicide, and add the surfactant last. Ground application only. DO NOT APPLY BY AIR.

APPROVE Herbicide + Horizon Herbicide Tank Mix

(For use in Manitoba, Saskatchewan, and Alberta plus the Peace River Region of British Columbia)

Weeds Controlled:	See WEEDS CONTROLLED table for APPROVE Herbicide plus those weeds listed on the Horizon Herbicide Tank Mix label.
Treatment Stage:	When spring or durum wheat is in the 4-leaf to flag leaf stage of growth.
Spray Volume & Pressure:	Apply in 100 litres of water per hectare at 275 kPa.
Application Rate:	1.24 L/ha APPROVE Herbicide + Horizon Herbicide Tank Mix [230 mL/ha Horizon 240EC + 0.8% v/v Score Adjuvant (ie: 800 mL Score with 100L of spray solution per hectare)] **OR** 1.24 L/ha APPROVE Herbicide + Horizon Herbicide Tank Mix [290 mL/ha Horizon 240EC + 0.8% v/v Score Adjuvant (ie: 800 mL Score with 100L of spray solution per hectare)]

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Note: APPROVE Herbicide should be added to the spray tank first, agitate, then add Horizon 240 EC, with Score Adjuvant last. Ground application only. DO NOT APPLY BY AIR.

APPROVE Herbicide + Signal Herbicide Tank Mix

(For use in Manitoba, Saskatchewan, and Alberta plus the Peace River Region of British Columbia)

Weeds Controlled:	See WEEDS CONTROLLED table for APPROVE Herbicide plus those weeds listed on the Signal Herbicide Tank Mix label.
Treatment Stage:	When spring or durum wheat is in the 4-leaf to flag leaf stage of growth.
Spray Volume & Pressure:	Apply in 100 litres of water per hectare at 275 kPa.
Application Rate:	1.24 L/ha APPROVE Herbicide + Signal Herbicide Tank Mix [230 mL/ha Signal Herbicide + 0.8% v/v Signal Adjuvant (ie: 800 mL Signal Adjuvant with 100 L of spray solution per hectare)] **OR** 1.24 L/ha APPROVE Herbicide + Signal Herbicide Tank Mix [290 mL/ha Signal Herbicide + 0.8% v/v Signal Adjuvant (ie: 800 mL Signal Adjuvant with 100 L of spray solution per hectare)]

Note: APPROVE Herbicide should be added to the spray tank first, agitate, then add Signal Herbicide, with Signal Adjuvant last. Ground application only. DO NOT APPLY BY AIR.

APPROVE Herbicide + Puma^{120} Super

(For use in Manitoba, Saskatchewan, and Alberta plus the Peace River Region of British Columbia)

Weeds Controlled:	See WEEDS CONTROLLED table for APPROVE Herbicide plus those weeds listed on the Puma^{120} Super label.
Treatment Stage:	Spring and durum wheat may be treated with APPROVE Herbicide + Puma^{120} Super from the 4- to 6-leaf stage of growth on the main stem plus 3 tillers. Barley may be treated with APPROVE Herbicide + Puma^{120} Super from the 4- to 5-leaf stage of growth on the main stem plus 2 tillers.

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Application beyond the 6-leaf stage of spring and durum wheat and the 5-leaf stage of barley may result in crop injury. Apply when annual grassy weeds are in the 1- to 6-leaf stage of growth.

Spray Volume & Pressure: Apply in 55-100 litres of water per hectare at 275 kPa. For aerial application, apply in a minimum of 35 L water/ha.

Application Rate: 1.24 L/ha APPROVE Herbicide + Puma[120] Super at 770 mL/ha. APPROVE Herbicide at 1.24 L/ha + Puma[120] Super at 385 mL/ha can be used for the control of weeds listed in WEEDS CONTROLLED table plus green foxtail only.

Note: Only apply this mixture to spring wheat or barley that is not underseeded to legumes.

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NOTES: