

US ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES PROGRAMS
REGISTRATION DIVISION (75-767)
WASHINGTON, DC 20480

EPA REGISTRATION NO. 5905-513 DATE OF ISSUANCE October 4, 1991
TERM OF ISSUANCE Until Reregistration
NAME OF PESTICIDE PRODUCT Parathion 4E
Emulsifiable Insecticide
Concentrate

NOTICE OF PESTICIDE: REGISTRATION
 REREGISTRATION
(Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended)

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

Helena Chemical Company
Suite 500
6075 Poplar Avenue
Memphis, Tennessee 38119

NOTE: Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data or other material required for registration/reregistration of your product under FIFRA sec. 3(c)(5) or FIFRA sec. 4 when the Agency requires all registrants of similar products to submit such data.

2. Make the following label changes:

- a. Add the phrase, "EPA Registration No. 5905-513."
- b. Revise the Restricted Use Statement to read as follows:

For retail sale only to certified commercial aerial applicators or persons under their direct supervision. For use only by certified commercial aerial applicators. Direct supervision for this product is defined as the certified commercial aerial applicator being physically present during mixing, loading, repair and cleaning of application equipment. Certified commercial aerial applicators must also ensure that all persons involved in these activities are informed of the precautionary statements.

ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL

DHE

DATE

10/4/91

- c. Delete all references to canola, and its associated Directions for Use. Until the required residue data are submitted, this is a pending use.
- d. In the Statement of Practical Treatment, delete the phrase "...for at least 15 minutes" from the instructions for "If In Eyes".
- e. In the **Work Safety Rules Section**, please add the following statement after the last sentence in the **After Work:** section:

During aerial application, human flaggers are strictly prohibited.
- f. Under soybeans, delete the directions listed for control of white grubs and wireworms (broadcast spray...incorporate into upper 4 to 6 inches of soil).

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Dennis H. Edwards, Jr.
Product Manager 19
Insecticide-Rodenticide Branch
Registration Division (H7505C)

enclosure

RESTRICTED USE PESTICIDE

Due to Very High Acute Toxicity to Humans and Birds

For retail sale to and use only by certified commercial applicators or persons under the direct supervision and only for those uses covered by the certified applicator's certification. Direct supervision for this product is defined as the certified applicator being physically present during mixing, loading, repair and cleaning of application equipment. Commercial certified applicators must also ensure that all persons involved in these activities are informed of the precautionary statements.

HELENA® PARATHION 4E EMULSIFIABLE INSECTICIDE CONCENTRATE

For use only on alfalfa, barley, canola, corn, cotton, sorghum, soybeans, sunflower and wheat

ACTIVE INGREDIENTS:

Parathion (O,O-diethyl O-p-nitrophenyl phosphorothioate) ..	44.08%
Related Compounds	1.41%
INERT INGREDIENTS	54.51%
TOTAL	100.00%



POISON

DANGER

KEEP OUT OF REACH OF CHILDREN

PELIGRO: AL USARIO: Si usted no lee ingles no use este producto hasta que la etiqueta la haya sido explicado ampliamente.

STATEMENT OF PRACTICAL TREATMENT

Call a doctor (physician), clinic or hospital immediately. Explain that the victim has been exposed to parathion and describe his condition.

If breathing has stopped, start artificial respiration immediately and maintain until doctor sees victim.

If Swallowed: Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person. Get medical attention.

In Case of Contact: Immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. See doctor immediately.

See inside label for additional information.

EPA Reg. No.

First letters of product bath code indicate producing establishment: 5905-GA-1=CG . 5905-AR-1=WA . 5905-CA-1=KC . 5905-FL-1=TF . 5905-IA-1=DI

NET CONTENTS:

MANUFACTURED BY
HELENA CHEMICAL COMPANY
MEMPHIS, TN 38137

5905-513
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER - POISON

POISONOUS IF SWALLOWED



IF SWALLOWED - Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger or blunt object. Do not induce vomiting or give anything by mouth to an unconscious person. Get medical attention.

POISONOUS BY SKIN CONTACT



Poisonous if touched by hands or spilled or splashed on skin, in eyes or on clothing (liquid goes through clothes.)

POISONOUS IF BREATHED



Breathing vapors, spray mist or dust may be fatal.

WORK SAFETY RULES

The National Pesticide Telecommunication Network is available for recommendations regarding poisoning management, emergency treatment, and other information regarding the toxicity of parathion. The toll free number for the National Pesticide Telecommunication Network is 1-800-858-7378. If handled indoors, provide mechanical exhaust ventilation. Keep all unprotected persons, children, livestock, and pets away from treated area or where there is danger of drift. Do not rub eyes or mouth with hands. If you feel sick in any way, STOP work and get help right away. See First Aid (PRACTICAL TREATMENT) SECTION.

IMPORTANT! If pesticide comes in contact with skin, wash off with soap and water and contact a physician immediately. Always wash hands, face, and arms with soap and water before smoking, eating, drinking, or toileting.

AFTER WORK: Wash gloves with soap and water before removing. Take off all work clothes and shoes. Store protective clothing separately from personal clothing. Launder protective clothing after each use. Shower using soap and water. Wear only clean clothes when leaving job. Do not wear contaminated clothing. Personal clothing worn during mixing/loading, application, repair and cleaning of application equipment, disposal of pesticide, and early reentry into treated fields must be sorted and laundered separately from household articles. Clothing and equipment heavily contaminated or drenched with parathion must be destroyed according to state and local regulations. **HEAVILY CONTAMINATED OR DRENCHED CLOTHING CANNOT BE ADEQUATELY DECONTAMINATED.**

Respirators should be cleaned and cartridges replaced according to instructions included with respirators. Replace gloves frequently.

STATEMENT OF PRACTICAL TREATMENT POISONING SYMPTOMS

Parathion is a very dangerous poison. It rapidly enters the body by contact with all skin surfaces and eyes. Clothing wet with this material must be removed immediately. Exposed persons must receive prompt medical treatment or they may die.

Some of the signs and symptoms of poisoning are: Headache, nausea, vomiting, cramps, weakness, blurred vision, pin-point pupils, tightness in chest, labored breathing, nervousness, sweating, watering of eyes, drooling or frothing of mouth and nose, muscle spasms and coma.

NOTE TO PHYSICIAN

Since any symptoms from absorption of this combination product are likely to be those of ethyl parathion intoxication, treatment should be directed towards the relief of cholinesterase inhibition.

ANTIDOTE-Administer atropine sulfate in large doses, TWO to FOUR mg. intravenously or intramuscularly as soon as cyanosis is overcome. Repeat at 5 to 10 minute intervals until signs of atropinization appear. 2-PAM chloride is also antidotal and may be administered in conjunction with atropine. DO NOT GIVE MORPHINE OR TRANQUILIZERS. Parathion is a strong cholinesterase inhibitor affecting the central and peripheral nervous systems and producing cardiac and respiratory depression. At first sign of pulmonary edema, the patient should be given supplemental oxygen and treated symptomatically. Continued absorption of the poison may occur and fatal relapses have been reported after initial improvement: VERY CLOSE SUPERVISION OF THE PATIENT IS INDICATED FOR AT LEAST 48 HOURS.

ENVIRONMENTAL HAZARDS

This pesticide is highly toxic to fish and wildlife. Birds in treated areas may be killed. Do not apply directly to water or wetlands (swamps, marshes, bogs, and potholes). Run-off and drift from target area may be hazardous to aquatic organisms in adjacent aquatic sites. Do not contaminate water by disposal of equipment washwaters.

This product is extremely toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow to drift to blooming crops or weeds. Do not apply this product or allow to drift to blooming crops or weeds if bees are visiting the treatment area.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

CHEMIGATION PROHIBITION

Do not apply this product through any type of irrigation system.

This product may not be applied to any crop other than alfalfa, barley, canola, corn, cotton, sorghum, soybeans, sunflower and wheat. Any treated crop may be harvested only by mechanical means; hand harvesting of a treated crop is prohibited.

REENTRY STATEMENT

CROP	REENTRY LEVEL	STATES
Corn	6 Days	All states
Cotton & Other crops	3 Days	All states

GENERAL REENTRY LIMITATION: While an area is being treated with this product and during the first three days after treatment (six days after treatment if the crop treated is corn), or any longer period of time prescribed by State law or regulation, no person may enter or remain in the treated area or within 100 feet of the treated area.

EXCEPTION: After four (4) hours have passed since the end of the application a person may enter the treated area to perform scouting or irrigation-related work in accordance with the following requirements:

- (a) No person shall remain in the treated area for a total of more than 1 hour in a four hour period.
- (b) Before entering the treated area the person must have read the product labeling or have been informed, in a language that the person can understand, of all the requirements of the product's labeling related to human hazards or precautions, first aid, symptoms of poisoning, personal protective equipment specified for early entry, and any other labeling requirements related to safe use.
- (c) The person must wear personal protective equipment consisting of a cotton or other fabric coverall worn over a long sleeved shirt and long pants, chemical resistant boots, and chemical resistant gloves, and shall take appropriate measures to prevent heat-related illness.
- (d) The person must carry an eye-flush dispenser containing at least one pint of water.
- (e) A reasonably accessible decontamination site must be available with adequate supplies of potable water for washing, soap, clean towels, and a sufficient amount of potable water for washing and must wash thoroughly after removing personal protective equipment.
- (f) All personal protective equipment worn during restricted reentry must be laundered separately and may not be worn home.

Posting of Treated Areas: Treated areas shall be posted with signs at all usual points of entry or in the corners of the treated areas affording maximum visibility. Written warnings must include the following information: DANGER: Area treated with Ethyl Parathion on (date of application). Do not enter.

Consult your State Agricultural Extension Service or Experiment Station regarding posting treated areas.

LIMITS ON APPLICATION

Aerial Application Only: Ethyl Parathion may only be applied aerially, and only by a certified commercial applicator as defined in FIFRA 2(e)(3).

Areas Where Application Is Prohibited: This product may not be applied within 100 feet of buildings, public roads, or bodies of water. Parathion may not be applied within 100 feet of property

lines unless the owner of the adjacent property has given prior written consent to the application and has been informed of the timing of the application and the appropriate reentry requirements.

Drift Reduction Measures: Do not apply this product if the wind exceeds 10 miles per hour. Apply only from nozzles located not more than 75% of the distance from the center of the aircraft to the wing tip or helicopter rotor tip.

Notification to Land Owner: A certified commercial applicator shall not apply this product to a person's property unless the applicator has notified the person in writing no more than 12 months before the date of the application of: the requirement that crops treated with ethyl parathion be harvested mechanically; the appropriate reentry interval and the requirements concerning reentry set forth on this label; and the incident reporting requirements set forth on this label.

PROTECTION OF APPLICATORS, MIXER-LOADERS, AND MAINTENANCE PERSONNEL

Applicator Protection: The cockpit of the aircraft used to apply this product must be fully enclosed while the product is being applied. No pilot may apply this product if the pilot has earlier during the day of application performed any mixing/loading activities (other than acting as an observer) involving any pesticide product containing ethyl parathion.

Maintenance Personnel Protection: The following protective clothing and equipment must be worn during repair, cleaning of application equipment, and disposal of pesticide: waterproof-suit of one or two pieces covering all parts of the body except the head, hands, and feet; heavy-duty chemical resistant gloves; chemical resistant shoes (or chemical resistant shoe coverings or chemical resistant boots); goggles or face shield; hood or wide-brimmed hat; NIOSH approved respirator.

Mixer-loader Protection:

An observer must be present during all mixing/loading activities in order to furnish assistance in the event of an accident. The observer may not act as a mixer-loader.

Any person involved in mixing/loading activities (other than the observer) must wear (1) a cotton or other fabric coverall worn over a long-sleeved shirt and long pants, (2) chemical resistant boots and gloves, and (3) when the mixing/loading system is pressurized, a chemically resistant apron and a face shield or goggles.

The liquid pesticide must be removed from its original shipping container and transferred through connecting hoses, pipes, and/or couplings that are sufficiently tight to prevent handlers or other persons from contacting the parathion concentrate, use dilution, or rinsate solution. A complete seal by dry break or screw-on coupling to the opening of the original container shall be required.

All hoses, piping, tanks, and connections used in the system shall be of a type appropriate for the product being used and the pressure and vacuum levels involved. The closed system must be adequate to make necessary measurements of the product being used. External sight gauges shall be equipped with valves so that the flow of pesticide to the sight gauge can be shut off in case of breakage or leakage from the gauge.

Shut-off devices must be installed on the exit end of all hoses and at all disconnect points to prevent

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leakage of parathion when the transfer is stopped and the hose is removed or disconnected. If a hose carried parathion concentrate and has not been rinsed in accordance with the instructions in this section, a dry-couple shutoff device that will minimize parathion drippage to not more than 2 ml. per disconnect must be installed at the disconnect point. If the hose carried diluted-for-use parathion or rinsate solution, a reversing action pump or a similar system that will empty the hose and eliminate dripping of liquid from the end of the hose may be used as an alternative to a shut-off device

In mixing/loading operations do not pour this product from its container. Before opening the container, make sure that the container is resting securely on the ground or a sturdy support, with the top (opening) end up and approximately level.

Remove the product from the container only by use of a vacuum-producing pump system connected to a probe system that is listed by the State of California under that State's program establishing criteria for closed-system handling of Toxicity Category I pesticides. Examples of California-listed systems are the Chemprobe ® Model II system sold by Cherlor Mfg. Co., Inc., P. O. Box 2174, Salinas, CA 93902, telephone 408-422-5477 or the Protect-O-Loader Model XM-1 system sold by Protecto Mfg. Co., 20189 Firerock Road, Bend, OR 97701, telephone 503-382-6886. The probe system shall be screwed into the threaded opening in the top of the container to form a watertight connection, using appropriate adaptors provided by the probe manufacturer as necessary. The instructions provided by the seller of the probe have been thoroughly rinsed as required by this section.

The closed-system must provide for adequate rinsing of any removable probe and of all containers that are not labelled for return to the registrant. Rinsing must be done using a liquid that contains no pesticide. The rinsing system must be capable of spray-rinsing the inner surface of the container. The rinse solution shall be removed from the pesticide container concurrent with the introduction of the rinse medium. The rinse solution shall go into the pesticide mix tank of applicator vehicle via the closed system.

The system shall be rinsed according to the specifications of the manufacturer of the probe system, or, in the absence of such specifications, by moving at least one half of the container volume through the system. A minimum pressure of 15 psi shall be used for the spray rinse. Parathion containers shall be protected against excessive pressure during the container rinse operation. Measures shall be taken to prevent the spray rinse procedure from causing an increase in pressure on the inside of the container walls of more than 5 psi.

Either the operator of the closed system must have available at the time of operation a complete set of written instructions for proper operation of the system, or the certified applicator must document in writing before an operator uses the closed system that the operator has been adequately trained in the proper operation of the system.

INCIDENT REPORTING: A telephone notification must be made if mixing, loading, or use of a product containing ethyl parathion results in (1) inadvertent or unexpected human exposure to the product or illness resulting from exposure to the product, (2) spill of the product, (3) an investigation by Federal, State, or local authorities of allegations involving drift of the product, or (4) the deaths of birds or other wildlife. The certified applicator or the owner of the treated lands must notify by telephone the Chief, Compliance Branch, Office of Compliance Monitoring, US EPA at (202) 260-3375 within seven days of becoming aware of the incident.

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STORAGE AND DISPOSAL

Pesticide Storage

Do not store below 20°F. (-7°C).

Do not use or store near heat, open flame or hot surfaces.

Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call 901-761-0050.

To confine spill: if liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal

Metal containers - Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Plastic containers - Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

GENERAL INFORMATION

Mix in water with agitation; agitate while spraying. Apply to row and field crops in 1 to 3 gals. (California only: use 5 to 15 gals.) of water by airplane.

COMPATIBILITY- Avoid combinations containing highly alkaline materials such as lime-sulfur solutions or lime. Alkaline compounds will reduce the effectiveness of Parathion.

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ALFALFA: Armyworms, Alfalfa Weevil Larvae, Webworms - 1/2 to 3/4 pint per acre. Do not apply within 15 days of harvest.

BARLEY AND WHEAT: Aphids, Armyworms, Black Grass Bug, Stink Bugs, Greenbugs, Winter Grain Mites, Thrips, White Spider Mites, Leafhoppers, Cutworms, Grasshoppers, Brown Wheat Mites, Say's Plant Bugs - 1 to 1-1/2 pints per acre. Chinch Bugs, False Chinch Bugs - 1-1/2 pints per acre. Do not apply within 15 days of harvest.

CANOLA (For Oil): Not for use in California. Cabbage Seedpod Weevil - 1 to 2 pint per acre. Make first application when two or more weevils may be found per plant on young pods. Use higher rate during cool weather or when infestations are heavy. If treatment is necessary during bloom, treat only from evening to morning to protect bees. Do not apply later than 3 hours after sunrise. Do not graze treated field or feed foliage or trash to livestock. Do not apply within 28 days of harvest. Do not enter treated fields for 3 days.

CORN: European Corn Borers (in the whorl) - 1 pint per acre. Apply the first spray when 75% of the corn plants show "shot hole" feeding and follow with two additional sprays at 5- to 7-day intervals. Use sufficient water per acre to provide complete coverage and be certain whorls of plant are well-treated. Consult your State Agricultural Experiment Station for proper timing of treatments. Corn Leaf Aphid - 1/2 pint per acre. Fall Armyworms, Corn Rootworm adults, Armyworms, Climbing Cutworms, Grasshoppers, Japanese Beetle pint per acre. Corn Earworms - 1 pint per acre. Apply to silks as soon as they appear. Make 3 to 4 applications at 2- to 3-day intervals as infestation warrants. Reapply immediately after rain. Stink Bugs and Spider Mites - 1 pint per acre. Chinch Bugs - 1-1/2 pint per acre. Do not apply within 12 days of harvest.

COTTON: Aphids, Mites, Cotton Fleahoppers, Garden Webworm, Thrips - 1/2 pint per acre. Spider Mites - 1/4 to 1/2 pint per acre. Cabbage Looper, Boll Weevil - 1 pint per acre. Stink Bugs - 1 to 1-1/2 pints per acre. Salt Marsh Caterpillars - 1 to 2 pints per acre. Bollworms, Cotton Leaf Perforators, Lygus Bugs, False Chinch Bugs, Serpentine Leaf Miners and Southern Garden Leafhoppers - 2 pints per acre. Use enough water for complete coverage. Make first application when insects appear and repeat at 7 day intervals if required. If desired, this information may be combined with other insecticides in a complete cotton spray program. Workers entering fields within 72 hours after application must wear protective clothing. Do not harvest within 7 days.

SORGHUM: Sorghum Midge - 1 to 2 pints per acre (2 applications 3 to 5 days apart when approximately 90% of the heads have completely emerged from the boot or not later than start of blooming). Corn Leaf Aphids, Mites - 1/2 pint per acre. Sorghum Webworm, Corn Earworms, Fall Armyworm - 3/4 to 1 pint per acre. Chinch Bug - 1-1/2 pints per acre. Leaf injury may occur on some hybrid varieties of sorghum. Spray a few rows a week or so before booting to test effects on plants. Do not apply within 12 days of harvest or cutting for storage.

SOYBEANS: Webworms - 1/2 pint per acre. Velvetbean Caterpillar, Green Cloverworms, Twospotted Spider Mite, Stink Bugs - 1 pint per acre. Corn Earworm, Fall Armyworm - 1-2/3 pints per acre. White Grubs, Wireworms - broadcast 1 gallon per acre just prior to planting and

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thoroughly incorporate into upper 4 to 6 inches of soil. Do not apply more than two applications per growing season. Do not apply within 20 days of grazing or harvest.

SUNFLOWER: Sunflower Moth - 1 to 2 pints per acre on a schedule of 2 to 3 applications at 5 day intervals. Hybrid sunflowers completely in bloom in 12 to 15 days; thus the initial application should be made when 20% of the plants have begun to flower and moths and young larvae are present. Do not apply later than 30 days before harvest.

CONDITIONS OF SALE - LIMITED WARRANTY AND LIMITATIONS OF LIABILITY AND REMEDIES

The directions on this label are believed to be reliable and should be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions, the failure to follow the label directions, or good application practices, all of which are beyond the control of Helena Chemical Company (the "Company") or seller. In addition, failure to follow label directions may cause injury to crops, animals, man or the environment. The Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of the Company. The Company makes no other warranties or representations of any kind, express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warranty shall be implied by law.

The exclusive remedy against the Company for any cause of action relating to the handling or use of this product is a claim for damage and in no event shall damages or any other recovery of any kind against the Company exceed the price of the product which causes the alleged loss, damage, injury, or other claim. The Company shall not be liable and any and all claims against the Company are waived for special, indirect, incidental, or consequential damages or expense of any nature, including, but not limited to, loss of profits or income.

The Company and the seller offer this product and the buyer and user accept it, subject to the foregoing conditions of sale and limitation of warranty, liability and remedies.