



Use of Ipecac to Treat Poisoning in Young Children

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The swallowing of a potentially poisonous substance by a young child is a common event. The American Association of Poison Control Centers (AAPCC) reported 1.2 million such events in 2001 in children younger than 6 years. However, death attributable to unintentional poisoning is uncommon in children of this age; and the rate of such deaths has decreased dramatically over the past 50 years, from 500 per year in the 1940s to 25 in 1997. There are many reasons for this decrease. These include the use of child-resistant closures for hazardous pharmaceuticals and consumer products, constituent reformulations that make consumer products safer, anticipatory guidance, public education, legislation, the establishment of poison control centers, the development of product-formulation and poison-treatment databases, the development of sophisticated medical care resources, availability of new antidotes, and the replacement of more toxic pharmaceuticals with less hazardous drugs. The two most important factors have been child-resistant closures and safer medications. These are examples of passive primary prevention, a strategy that is recognized as the most effective preventive intervention.

A significant amount of the credit for this success story is due to the American Academy of Pediatrics (AAP), its Committee on Injury and Poison Prevention, and many AAP fellows who advocated for and implemented many of the aforementioned interventions. A conspicuous aspect of the initiatives of the AAP has been the recommendation to keep a 1-ounce bottle of syrup of ipecac in the home to be used to induce vomiting on the advice of a physician or a poison control center. The controversy within the AAP regarding this recommendation is of historical interest. The recommendation was made by the Committee on Injury and Poison Prevention in 1983 but was not published until 1989. The concern was that "it was recognized that the efficacy of ipecac had never been proven." Although widely accepted and also supported by other organizations, such as the AAPCC, there has always been concern regarding the effectiveness of this recommendation, as expressed by this 1981 comment: "The ipecac story is but another example of a seemingly sensible preventive health strategy being universally recommended and widely accepted before its efficacy and validity has been established."

The American Academy of Clinical Toxicology and the European Association of Poisons Centers and Clinical Toxicologists jointly published a position paper regarding the use of ipecac, in which they stated that "its routine administration in the emergency department should be abandoned." Although they did not make a definitive statement regarding ipecac in the home, their position statement nevertheless refocused considerable thought, discussion, and debate regarding the appropriateness of this intervention. This reassessment of ipecac has resulted in increased interest regarding activated charcoal as a potential intervention for treating poisonings in the home.



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Ipecac

The only recommended method of inducing vomiting has been the use of ipecac. It is a safe emetic. The more quickly that vomiting occurs after ingestion, the more substance is removed from the stomach. However, research has shown that even when ipecac is administered immediately after the ingestion of a substance, it does not completely remove it from the stomach. The most relevant study involved 13 children who were given ipecac as treatment for the ingestion of a potentially toxic amount of a drug. Immediately before ipecac administration, they were given a magnesium hydroxide marker. The mean amount of the recovered marker was 28%, with a range of 0 to 78%, showing poor and unreliable performance. Another study purporting benefit in children has been criticized for its unvalidated methods, which were later found to be inaccurate. Data from adult volunteers show ranges of 51 to 83% removal of the poisonous substance when ipecac is given at 5 minutes and of 2 to 59% removal when ipecac is given at 30 minutes after drug ingestion.

Adverse effects of induced vomiting include persistent vomiting (13 to 17%), lethargy (12 to 21%), and diarrhea (8 to 13%) in individuals given ipecac. Unfortunately, the presence of ipecac in the home often results in its inappropriate use. A purported benefit of the use of ipecac in the home is decreased visits to emergency departments for the treatment of the ingestion of poisonous substances by young children. However, this has been shown not to be the case. It was found that syrup of ipecac selectively administered in the home does not improve outcome or reduce utilization of emergency services in a large portion of the population served by poison centers.

Another shortcoming of home ipecac therapy is that continued vomiting may result in the child's being unable to tolerate other orally administered poison treatments. Administering syrup of ipecac to a young child who has ingested a substance

presumed to be toxic is, in most situations, treating a nondisease with a noxious intervention that is, for the most part, safe but has annoying adverse effects. It is notable that no other country promotes ipecac in the home. American poison control centers rarely recommend the use of ipecac anymore. In 1985, ipecac administration was recommended for 15% of their telephone consultations, and this percent has decreased every year thereafter, to 0.7% in 2001.

Charcoal

Activated charcoal is the most effective method of reducing the uptake of ingested substances. However, there are several factors against its use. Most importantly, it is poorly accepted by young children, making its use difficult. In emergency departments, it is commonly administered by nasogastric tube. Also, during storage, it tends to form sediment in clumps that are difficult to resuspend, which also makes it difficult to administer a proper dose in the home. Because it is often vomited and very messy, caregiver acceptance is an issue.

The published experience with activated charcoal in the home is limited. In five of the six reports, difficulty was reported in the administration of the recommended dose of charcoal, with lesser amounts being given from 40 to 80% of the time. One study concluded that "activated charcoal can be administered successfully by the lay public in the home" despite the mean dose accepted by the study children being less than the target dose. An observation was that the need for home charcoal treatment was an uncommon event, with fewer than two children per week needing it in the entire state of Kentucky. In those studies in which times of home and emergency department administration were compared, it was found that the mean times were 35 and 65 minutes after drug ingestion, respectively. Whether this 30-minute advantage provides benefit for the patient is uncertain. Because it is reasonable to assume that home administra-

tion of activated charcoal will, as with syrup of ipecac, be overused and inappropriately used, there should be clear evidence for patient benefit before its implementation as a public health intervention.

Treatment of Poisoning in the Home

Because the primary goal should always be prevention, it makes sense to first discuss poison prevention in the home. Keep potential poisons out of sight and out of reach.

- Always reengage child-resistant closures in the locked mode immediately after using a product.
- Never transfer a substance from its original container to an alternate one.
- Safely dispose of all unused and no longer needed substances.
- Post the poison control center number near the telephone. The universal telephone number in the United States is (800)222-1222. Calls are routed to the local poison control center.

Additional information can be obtained from the AAP brochure "Protect Your Child From Poison."

There is controversy regarding home treatment of the ingestion of a potentially toxic substance. Dilution by having the child drink 100 to 200 mL of water or another drink is a routine recommendation for the ingestion of a nonpharmaceutical; however, this is not recommended after the ingestion of a medication, because there is concern that it would hasten the drug's absorption because of earlier exit from the stomach. The next decision is whether further treatment at a hospital is required. The poison control center advises the caregiver if this is necessary.

Recommendations

1. Poison prevention should continue.
2. Syrup of ipecac should no longer be used routinely as a poison treatment in the home.

3. Current research does not support the routine administration of activated charcoal in the home, as efficacy and safety have not been demonstrated.
4. The first action for a caregiver of a child who may have ingested a toxic substance should be to consult the local poison control center by telephoning (800)222-1222.

(Adapted by Phil Nixon from a policy statement published in November 2003 by the American Academy of Pediatrics Committee on Injury, Violence, and Poison Prevention. The original document can be located at <http://www.aap.org/policy/s010120.html>.)

Atrazine Status Report

Following is a press release from US EPA summarizing important regulatory actions relating to atrazine.

"In January 2003, EPA issued an 'Interim Re-registration Eligibility Decision' (IREDD) for the widely-used pesticide atrazine, culminating a multi-year assessment. Specific risk mitigation measures were described for potential human health concerns, however the document committed to future development of measures for mitigating ecological risks. As a follow-up, an addendum to the January document is being released. The addendum discusses ecological monitoring and risk mitigation within sensitive watersheds, the most current scientific information regarding potential effects of atrazine on amphibians and recent scientific work about the potential association between atrazine exposure and the incidence of prostate and other cancers.

"Specifically to target monitoring of ecologically vulnerable watersheds, the manufacturers of atrazine are required to monitor residue levels in 40 indicator watersheds [in Ohio, Indiana, Kentucky, Illinois, Iowa, Missouri, Nebraska, Minnesota, Tennessee, and Louisiana] that are representative of watersheds that may be

vulnerable to contamination where atrazine is regularly used. If monitoring indicates an exceedance of a level of concern in a watershed, the company will work to remediate the watershed consistent with the Clean Water Act's total maximum daily load (TMDL) program and appropriate requirements under the federal pesticide law. If this remediation is not sufficient, EPA may take further action [could include: buffer zones, different application or incorporation methods, restrictions on the timing of application due to rain, and lower application rates] to mitigate risks from atrazine and will consider as appropriate, benefits of atrazine use in the particular watershed. This innovative and protective approach was jointly developed by EPA, atrazine manufacturers, the U.S. Department of Agriculture and grower groups to provide an early alert system in watersheds where atrazine may be a concern. This model approach may in turn be used to address similar concerns in other watersheds. Since issuing the IREDD, EPA has carefully evaluated and received scientific peer review of studies regarding possible developmental effects on amphibians exposed to low doses of atrazine. These data do not provide evidence to show that atrazine produces a consistent, reproducible effect on amphibian development. An independent science peer review panel convened in June supported the Agency's conclusions and recommended that more data be generated to evaluate this potential relationship. Generation of this data is underway. Based on the available scientific work on the potential association between atrazine and cancer, the Agency does not find any studies that would lead the Agency to conclude that potential cancer risk is likely from exposure to atrazine. However, EPA will continue to review new studies on this issue and plans to convene another independent Scientific Advisory Panel concerning atrazine and its potential association with carcinogenic effects.

"EPA's work on atrazine is based on a thorough review of an extensive body of the best available scientific data and studies, has been subject to participation by the public and stakeholders, and has

undergone independent scientific peer review. Atrazine is used on a variety of crops and nonagricultural applications. It is being reviewed as part of EPA's ongoing program to evaluate older pesticides to ensure that they meet current health and environmental safety standards, including the health protective measures, called for in the Food Quality Protection Act (FQPA). In addition to the significant accomplishment represented by this action on atrazine, today's action fulfills an obligation to the Natural Resources Defense Council (NRDC) and others under a consent decree. Extensive information on EPA's review of atrazine is available at: <http://www.epa.gov/oppsrrd1/reregistration/atrazine>." (Source: "Additional Scientific Reviews of Herbicide Atrazine Completed." USEPA headquarters press release, October 31, 2003, <http://www.epa.gov/oppsrrd1/reregistration/atrazine>.)

Additional Comments: IREDD and the Addendum

Pages 79 to 93 of the original IREDD (pdf document dated January 31, 2003) outline the adjustments that registrants must make before atrazine can be reregistered. EPA requires a long list of changes and additional label statements for agricultural and nonagricultural product labels, to reduce the impact of atrazine on human health (food, drinking water), occupational users (applicators), and the environment. Registrants may generally distribute and sell products bearing old labels/labeling for 26 months from the date the IREDD was issued (January 2003). Persons other than the registrant may generally distribute or sell such products for 50 months from the date of the IREDD.

I encourage you to read the 16-page addendum to the IREDD (<http://www.epa.gov/oppsrrd1/reregistration/atrazine/atrazineadd.pdf>) explaining EPA's decisions regarding existing human health and ecological studies. In addition, this addendum serves as a reminder that EPA anticipates receipt of several additional human health studies and is seeking additional ecological data. Furthermore, EPA has not

yet considered the cumulative risk for the whole triazine herbicide group, a requirement of the Food Quality Protection Act.

Conclusion

Clearly, pesticide risk assessment is an evolving process. As a result, pesticide labels will change and you might not be aware of the changes unless you carefully read the label that comes with the pesticide. I cannot overemphasize the importance of reading and following the label directions. If you are unsure about specific label directions or if you need assistance in implementing best management practices, please contact your local University of Illinois Extension office. (Bruce E. Paulsrud)

US DOT Security Plan for Farmers?

“Persons, including farmers, who ship or transport hazardous materials in commerce in amounts that require the shipment to be placarded must develop and implement security plans by September 25, 2003. Examples of materials to which the security plan requirement applies include explosives such as dynamite or detonators, pesticides, fertilizers such as anhydrous ammonia or ammonium nitrate, and fuels such as gasoline, diesel, and propane.

“If you ship or transport fertilizers, pesticides, gasoline, diesel fuel, or propane in packages or containers that are larger than 119 gallons or the total quantity you ship or transport at any one time is more than 1,000 pounds, then you must have a security plan.

“If your supplier delivers the pesticides, fertilizers, and fuels you use to your farm, then you do not need to have a security plan.

“If you only transport fertilizers, pesticides, and fuels between fields of your farm, then you do not need to have a security plan.”

The preceding text is part of a U.S. Department of Transportation (US DOT) fact sheet (HMR-4922) entitled “Hazardous Materials Transportation Security Requirements: Applicability to Farmers and Farming Operations.” This fact sheet was available from US DOT’s Web site earlier this fall, but now it is gone. You’re not alone if you’re asking, “Where did all of this come from, and what happened to the fact sheet?”

The Rest of the Story

On March 25, 2003, the final rule for “Hazardous Materials: Security Requirements for Offerors and Transporters of Hazardous Materials” was published in the *Federal Register* (vol. 68, no. 57; <http://hazmat.dot.gov/rules/68fr-14509.htm>). In a nutshell, the revised regulations require that shippers and carriers must

1. Have a written security plan in place by September 25, 2003.
2. Train all HAZMAT employees (any person under your corporate control who performs any task covered by hazardous materials regulations) on the written security plan by December 22, 2003.
3. Provide all HAZMAT employees with security-awareness training.

With heightened national security concerns, it is no surprise that the existing hazardous materials regulations would be reevaluated and modified in some way. What is surprising is that farmers appear to have been sucked into the regulations this time. Or did they? As I understand it, US DOT put the security-plan requirement for farmers on hold and is discussing the issue with USDA, state departments of transportation, and the American Farm Bureau. The Illinois Fertilizer and Chemical Association (IFCA; www.ifca.com) has also been active in this arena and sponsored several workshops across Illinois this summer to help its dealer members prepare US DOT security plans.

At this time, it is not clear how this regulatory change will affect farmers. Will farmers need a security plan in place to pick up certain pesticides in mini-bulk containers or anhydrous ammonia tanks from their dealer? These are just a few of the questions that have been raised. In addition, there are logistical and enforcement questions that need answers. As this issue unfolds, stay tuned by talking with your dealers and farm and commodity organizations. (Bruce E. Paulsrud)

Commercial Pesticide Training Information Available

It’s that time of year again. The leaves are falling, the days are shorter; and if you are a pesticide applicator in Illinois, it’s time either to renew your license or to retest. By now, you should have received a letter from Illinois Department of Agriculture indicating your license status. However, if you are new to this industry, you may need information on license requirements and testing and training options. The Pesticide Safety Education Program at the University of Illinois has released its clinic dates for the 03/04 season. You can view the schedule and find related information at <http://www.pesticidesafety.uiuc.edu/training/training.html>. Schedule booklets can also be picked up at your local U of I Extension office or ordered by calling (800)644-2123 or (217)244-3469. The booklets contain order information for study materials, but an up-to-date list of materials can also be found online at <http://www.pesticidesafety.uiuc.edu/publications/publications.htm>.

How current are the study materials on your bookshelf? Keep in mind that both the general standards manual and workbook are new this year. Materials are revised from time to time, so checking this list is recommended. (Michelle Wiesbrook)

Toro Sprayer Calibration Tool

Toro has a sprayer-calibration program for use with both a personal computer and PDA (personal data assistant) like a Palm Pilot that makes sprayer calibration simple. No more trying to memorize formulas or remember how many thousand square feet are in an acre. Now you can just enter some information, and the program will calculate what you need to know.

The *Toro Sprayer Calibration Tool* is available online at <http://www.toro.com/golf/CUSTSVC/svcedu/sprayer-software.html>. The program is free of charge, but remember to read the license at the bottom of the Web site. The user has a choice of selecting software for Windows PCs, Windows CE, or Palm OS. There are pictures of devices to help you choose which software type you need. There are also instructions on the steps to download the software. Below this section are the links you click on, depending on which version

of the software you need to download.

Anyone using a personal computer running Microsoft Windows 95 or higher has only one file to select from, which makes it simple to find. If you are using a PDA, you need to choose the software version to download based on the type of device you have and the software it's running. The majority of the choices are for those PDAs running Pocket PC software. Once you have selected the correct version, download the file and unzip it. For Windows and Pocket PC users, double click on the Setup.exe file to install the program. Palm OS users need to use the normal Palm install tool.

All versions of the software look essentially the same once they are installed and running. The Windows version has a few extra features not present in the PDA versions. A section called "Enter Information" allows the user to enter personal data and notes. "Print Report" allows the user to save and print reports with results from other functions. The functions included in all versions of the program are

Nozzle Uniformity Calculator. Use it to find nozzles that have a flow rate considerably different from the average. These nozzles need to be cleaned or replaced. The user decides the percentage variation from average at which a nozzle's flow rate is unacceptable. The catch time, pressure, and output from each nozzle in ounces is entered. The program then determines which nozzles are significantly higher or lower than the average flow rate. The flow rate in gallons per minute (GPM) is also calculated for use in later functions.

Speed Calculator. Determines the ground speed of the sprayer in miles per hour (MPH). Enter the distance the sprayer traveled in feet and the time it took in seconds, and the program will give you the speed in MPH. Conduct this test on terrain similar to that being sprayed.

Application Rate Calculator. Calculates the spray-application rate for the sprayer. GPM and MPH are entered automatically from the previous functions or can be entered manually. Nozzle spacing in inches is entered by hand, and the program calculates the spray-application rate in gallons per thousand square feet (GPK) or gallons per acre (GPA). Note: GPA is calculated by converting GPK, so if you calculate GPA separately by hand you may get a slightly different number due to rounding. This difference is minor.

Tank-Mixing Calculator. This calculator determines the total amount of both product and water needed for an area to be sprayed. The formulation application rate in ounces per thousand square feet, sprayer-application rate in GPK, and size of the area to be sprayed in thousand square feet or acres are entered. A separate calculator is available for converting GPA to GPK. Also available is a multi-tank feature that can be used if more than one tankful is required for a job. Enter the tank capacity in gallons, and the program determines how many tankfuls are required and the amount of water and product to put in each tankful, including the last partial tank.

Select Correct Nozzle. The desired spray-application rate in GPK, ground speed in MPH, and nozzle spacing in inches are entered to calculate the required GPM nozzle flow rate. A separate calculator is available for converting GPA to GPK. The acceptable minimum and maximum flow rates are also given. This information can then be used to select a nozzle from manufacturer catalogs.

Nozzle Pressure Drop. This function allows you to calculate the pressure at the nozzle. The nozzle flow rate from the manufacturer's chart and the corresponding pressure are entered. The actual GPM output from your nozzle is entered, and the program determines the pressure at the nozzle. This function is useful for troubleshooting a failure to achieve the correct spray-application rate.

Complete instructions for using the software are available online. The *Toro Sprayer Calibration Tool* software allows applicators to quickly and accurately calibrate their sprayers without having to remember all the necessary formulas and conversions. Downloading this software to a PDA is especially convenient because all necessary calculations can be preformed when and where needed. Put this tool to use in your daily operations. (*Scott Bretthauer*)

Pesticide Update

The following information provides registration status of particular pesticides and should not be considered as pesticide recommendations by University of Illinois Extension.

Agronomic

ACHIEVE (tralkoxydim)—Syngenta—EPA established time-limited residue tolerances on barley and wheat. They expire 5-1-05. (*FR*, vol. 68, 8-13-03) [herbicide]

AZTEC (phostebuperim/cyfluthrin)—Bayer—Proposed to EPA to register this product on corn to control soil insects.

CHATEAU (flumioxazin)—Valent—A new product to be marketed for the control of various broadleaf weeds and grasses in peanuts, soybeans, cotton, corn, rice, sorghum, sunflowers, tobacco, wheat, barley, beans, alfalfa, and oats.

Fruit/Vegetable

ADMIRE (imidacloprid)—Bayer—Added to their label the control of pecan spittlebug, black pecan aphid, and yellow peach aphid on pecans.

ENDURA (boscalid)—BASF—This newly registered fungicide is especially effective against *Alternaria*, *Botrytis*, *Sclerotinia*, and *Rhizoctonia* on vegetables. It is a 70% WDG formulation.

KRYOCIDE (cryolite)—Cerexagri—Label revisions include changing the pre-harvest interval and spray interval on brassica vegetables, squash, and grapes; and adding the use on pumpkins and winter squash. [insecticide]

MESA (milbemectin)—Gowan—Registration in the United States is expected next year on pome fruits, citrus, and strawberries. [insecticide]

MESSENGER (harpin protein)—Eden Bio Science—Added to their label the control of postharvest diseases in citrus.

MILSANA (Reynoutria sachelinesis)—KHH BioSciences—A new biofungicide being developed to control powdery mildew and gray mold on vegetables.

PRISTINE (boscalid/pyraclostrobin)—BASF—A new combination fungicide being developed for use on grapes, stone fruit, nut crops, strawberries, and vegetables. It controls powdery mildew, downy mildew, botrytis, blossom blight, scab, brown rot, and others.

SCOTTS CO.—The company plans to purchase Yates lawn-and-garden consumer business in Australia and New Zealand.

SUCCESS (spinosad)—Dow Agro-Sciences—Added to their label the control of foliar insects on herbs.

SURROUND (kaolin)—Engelhardt Corp—Received EPA approval to control lanthanobium cutworms in apples.

SYNGENTA—The company has developed the first hybrid barley variety. Called "Colussus," it will be introduced in England. The company will name its first genetically engineered cotton "Vip Cot," which will give control of lepidoptera insects in cotton.

Turf/Ornamental

ALUDE (mono and potassium salts of phosphorous acid)—AgriChem Mfg.—The company has appointed Cleary Chemical Co. as the exclusive representative for this product in the turf-and-ornamental market to control various diseases on ornamentals, bedding plants, conifers, and turf.

ARDENT (dimethomorph)—BASF—As a result of the IR-4 Project, they can now add to their label the use on 14 new ornamental species. [fungicide]

BANNER MAXX (propiconazole)—Syngenta—As a result of the IR-4 Project, they can now add to their label the use on poplar trees. [fungicide]

BETASAN 7-G (bensulide)—Gowan—The company has deleted from their label the use on deciduous trees, shrubs, and evergreens. [herbicide]

BRAVO (chlorothalonil)—Syngenta—As a result of the IR-4 Project, they can now add to their label the use on the ornamental walking stick. [fungicide]

BROADSTAR (flumioxazin)—Valent—Being developed as a preemergence herbicide for use on field- and container-grown woody ornamentals.

CONTRAST (flutolanil)—Scotts—As a result of the IR-4 Project, they can now add the use on ornamental lilies to their label. [fungicide]

DITHANE (mancozeb)—Dow Agro-Sciences—As a result of the IR-4 Project, they can now add to their label the use on nonbearing cranberries. [fungicide]

ELEXA-4 (chitosan)—Safe Science—As a result of the IR-4 Project, they can now add the use on chrysanthemums to their label. [fungicide]

EMERALD (boscalid)—BASF—Registration on turf and ornamentals is expected sometime this summer. It is especially effective on dollar spot in turf.

ENDEAVOR (pymetrozine)—Syngenta—As a result of the IR-4 Project, they can now put on their label the use on ash, nonbearing crabapple, honey locust, oak, maple, wisteria, and yew. [insecticide]

ENSTAR II (S-kinoprene)—Wellmark Int'l.—Added to their label the control of thrips.

FANATE 70 WSP (thiophanate methyl)—Cerexagri—A new formulation for turf and ornamental use. [fungicide]

HERITAGE (azoxystrobin)—Syngenta—As a result of the IR-4 Project, they can now add the use on poinsettia to their label. [fungicide]

INSIGNIA (pyraclostrobin)—BASF—Registration is expected by the end of the year for this granular formulation on turf to control over 15 different diseases.

MONUMENT (trifloxysulfuron-sodium)—Syngenta—Proposed to EPA to register this new active ingredient to control broadleaf weeds and sedges in turf. (FR, vol. 68, 9-19-03)

ORNAMENTAL HERBICIDE II (oxyfluorfen/pendimethalin)—Scotts—As a result of the IR-4 Project, they can now add to their label the use on Pampas grass. [herbicide]

ORTHENE (acephate)—Valent—As a result of the IR-4 Project, the suppliers can now add to their label the use on 11 new ornamental species. [insecticide]

PEDESTAL (novaluron)—Crompton—As a result of the IR-4 Project, they can now put on their label the use on 10 new ornamental species. [insecticide]

PENDULUM (pendimethalin)—BASF—As a result of the IR-4 Project, they can add to their label the use on balsam, mug-

wort, nonbearing strawberry, and chrysanthemum. [herbicide]

PYLON (chlorfenapyr)—BASF—Added to their label the control of foliar nematodes on ornamentals.

RONSTAR (oxadiazon)—Bayer—As a result of the IR-4 Project, they can now add to their label the use on African daisy and broom. [herbicide]

ROUT (oxyfluorfen/oryzalin)—Scotts—As a result of the IR-4 Project, they can now add to their label the use on 11 new ornamental species. [herbicide]

SNAPSHOT (isoxaben/trifluralin)—Dow AgroSciences—As a result of the IR-4 Project, they can now add to their label the use on false spirea. [herbicide]

SUBDUE MAAX (mefenoxam)—Syngenta—As a result of the IR-4 Project, they can now put on their label the use on nonbearing peaches. [fungicide]

ULTIFLORA (milbemectin)—Gowan—Registration on ornamentals in the United States is expected by the end of the year. [insecticide]

VELOCITY (bipyribac-sodium)—Valent—Registration is expected next year for use on turf as a postemergence treatment to control poa annua and certain broadleaf weeds.

Structural

INDOXACARB—DuPont—Being developed for ant, termite, and roach control for the pest-control operator market.

ZYPOX (fufenuron)—Syngenta—A new ready-to-use formulation being developed to control termites.

Many

AGRI FOS (potassium phosphate)—Agri-Chem Mfg.—Added to their label the use on additional ornamentals, turf, tomatoes, and brassica vegetables. [Fungicide]

ARABESQUE (Muscodorus albus)—Agra Quest—This natural fumigant is being developed to replace methyl bromide. It was

discovered on the bark of the cinnamon tree.

CLEAR OUT (glyphosate)—Chemical Product Technologies—A new formulation being introduced into the U.S. market. [herbicide]

DIMETHOATE—Cheminova, BASF Gowan, Drexel, and MicroFlo—Due to regulatory problems, the manufacturing companies have proposed to EPA to delete from their labels the use on apples, grapes, cabbage, collards, spinach, head lettuce, broccoli, raab, fennel, tomatillo, lespedeza, and tree fruit. The comment period expired 10-10-03. (FR, vol. 68, 9-10-03) [insecticide]

DITERA—(Myrothecium verrucaria)—Valent—This biological nematocidal is now available in a dry-flowable formulation packaged in 10-pound pails.

INTREPID (methoxyfenozide)—Dow AgroSciences—Adding to their label the control of foliar insects on artichokes, stone fruits, tree nuts, pistachios, fruiting vegetables, and cole crops.

KEY PLEX 350 (yeast extract)—Morse Enterprises Ltd.—The product, when mixed with micronutrients, aids in the prevention of certain plant diseases, such as post-blossom fruit drop, greasy spot, bacterial leaf spot, and others when applied as a foliar spray.

SEVIN 50WP (carbaryl)—Bayer—Added to their label the control of mosquitos and fire ants, and the use in forest areas and rangelands.

SURFLAN (oryzalin)—Dow AgroSciences—As a result of the IR-4 Project, they can now add to their label the use on coneflower, leavenworth, and stone crops. [herbicide]

TAEGR0 (Bacillus subtilis var Anybolicus faciens strain FZB-24)—Taensa—EPA established an exemption from residue-tolerance requirements for this bio-fungicide when used on all agricultural commodities for plant strengthening, growth enhancement, and plant-disease suppression. (FR, vol. 68, 7-30-03)

TAHOE (triclopyr)—Nufarm—A new formulation used to control brush species in rights-of-way forests and other areas.

TOPSIN-M (thiophanate-methyl)—Cerexagri—As a result of the IR-4 Project, they can now put on their label the use on white pine. [fungicide]

TSS 75WG (trifloxysulfuron-sodium)—Syngenta—Proposed to EPA to register this new active ingredient to control broadleaf weeds, sedges, and grasses in almonds, citrus, cotton, sugarcane, and tomatoes. (*FR*, vol. 68, 8-20-03)

Other

BASF—The company will move its global agricultural chemicals home office to Limburgerhof, Germany. It is currently located in Mt. Olive, New Jersey.

CLEARY CHEMICAL CO.—The company has received exclusive marketing rights from Nippon Soda for Tri Star (acetamiprid) insecticide in the United States for the greenhouse, nursery, and ornamental markets.

NOVOZYMES BIOLOGICALS—This Danish company has purchased the U.S. company Roots Inc., which manufactures biocides for golf courses, turf areas, and ornamentals.

(Michelle Wiesbrook, unless otherwise noted, adapted from Agricultural Chemical News, September and October, 2003.)

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