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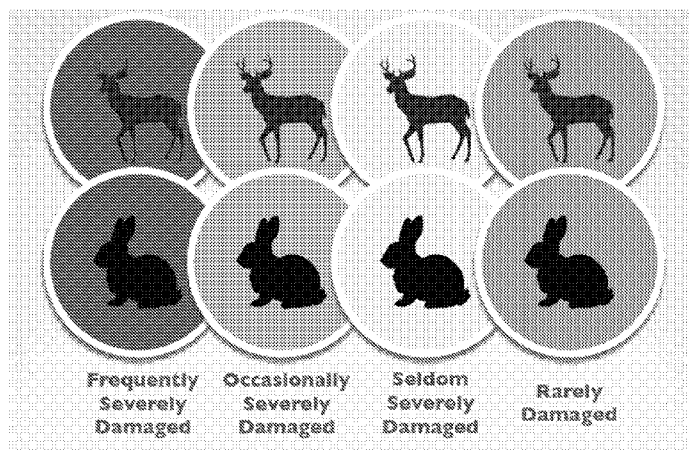
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(54) Title: METHODS FOR RECOMMENDING COMPLEMENTARY PRODUCTS AND ACTIVE REMINDERS

Figure 1



(57) Abstract: The invention relates to methods of recommending at least one pest management product complementary to a home and garden product using a pest damage threat level hierarchy, methods to characterize and label a home and garden product using a pest damage threat level hierarchy, and methods of using active reminders for a user to apply or purchase at least one pest management product to a home and garden product.

METHODS FOR RECOMMENDING COMPLEMENTARY PRODUCTS AND ACTIVE REMINDERS

CROSS REFERENCES TO RELATED APPLICATIONS

[0001] This application claims priority to U.S. Provisional Patent Application No. 61/607,162, filed March 6, 2012, entitled “Methods for Recommending Complementary Products and Active Reminders” and U.S. Provisional Patent Application No. 61/748,816, filed January 4, 2013 entitled “METHODS FOR RECOMMENDING COMPLEMENTARY PRODUCTS AND ACTIVE REMINDERS”, the contents of which is incorporated herein by reference in its entirety.

FIELD OF THE INVENTION

[0002] The present invention relates to methods of recommending at least one pest management product complementary to a home and garden product using a pest damage threat level hierarchy, methods to characterize and label a home and garden product using a pest damage threat level hierarchy, and methods of using active reminders for a user to apply or purchase at least one pest management product to a home and garden product.

BACKGROUND OF THE INVENTION

[0003] A variety of pest management products are available to prevent an invasion of pests in home and garden products. Currently, to find pest management products, users have a tendency to research products online, shop for products at stores, or obtain professional advice on methods to control pests. Users also tend to make purchasing decisions based on factors such as advertisements, price, store specials or promotions and product recommendations. Once a pest management product is purchased, a user may not have a way to keep track of the pest management products which they may use on their home and garden products. Also, users do not usually have access to methods for keeping pests consistently repelled from their home and garden products such as creating a schedule which can remind them to apply and/or purchase pest management products or to track their pest management product inventory.

[0004] Therefore, there is a need in the art to provide a convenient and consistent method to characterize and label home and garden products, to recommend pest management products for home and garden products, and provide a customizable convenient method to create reminders for users to purchase and/or apply pest management products to their home and garden products.

SUMMARY OF THE INVENTION

[0005] The present invention provides methods for characterizing and labeling a home and garden product with a pest damage threat level hierarchy. A home and garden product characterized using the pest damage threat level hierarchy may be labeled with at least one icon to represent a threat level from the hierarchy. The home and garden product categorized may be a plant selected from, but not limited to, flowering plants, vegetable plants, ferns, shrubs, trees, mosses and grasses.

[0006] The pest damage threat level hierarchy may be sorted into categories such as, but not limited to, rarely damaged, seldom severely damaged, occasionally severely damaged, and frequently damaged. The icon representing the pest damage threat level from the hierarchy may include at least one image of a pest from the hierarchy and/or at least one color indicative of a category of the hierarchy. The pest represented may include, but is not limited to, mice, rats, squirrels, rodents, opossums, raccoons, bears, bats, beavers, voles, rabbits, deer, elk, birds, foxes, gophers, moles and household pets. The icon may be presented to a user of a home improvement or gardening retail establishment on an information placard for the home and garden product and/or the home improvement or gardening retail establishment, a webpage for the home and garden product and/or the home improvement or gardening retail establishment, and/or a mobile device application related to the home and garden product and/or the home improvement or gardening retail establishment.

[0007] The methods of the present invention may further include suggesting at least one pest management product to use with the threat level associated with the home and garden product. The product suggested may include, but is not limited to, repellents, attractants, management systems and pest control devices. The pest management product may be a repellent and may further be generally regarded as safe (GRAS). The

suggestion of the pest management product may be in a place such as, but not limited to, online, in store or at the point of sale. The suggestion may be located at a place such as, but is not limited to, an information placard for the home and garden product and/or the home improvement or gardening retail establishment, a webpage for the home and garden product and/or the home improvement or gardening retail establishment, and/or a mobile device application related to the home and garden product and/or the home improvement or gardening retail establishment.

[0008] The present invention also provides methods for recommending at least one pest management product to a user of a home improvement or gardening retail establishment using at least one reminder. A user may select at least one home and garden product from a home improvement or gardening retail establishment where at least one pest management product may be recommended for use with the home and garden product. A user may further set a reminder to use and/or purchase at least one pest management product with the home and garden product selected. The reminder may notify the user on a basis such as, but not limited to, daily, every 2 days, every 3 days, every 4 days, every 5 days, every 6 days, weekly, monthly, bimonthly, annually, biyearly, and seasonally. A user may be notified by a method such as, but not limited to, email, text message, voice message, push notification, pop-up, and paper mailing. The home and garden product may further be registered on a computer program which may be associated with the home improvement or gardening retail establishment. The product may be registered when the home and garden product is purchased using a loyalty card for the home improvement or gardening retail establishment or the product may be registered on the computer program by the user.

BRIEF DESCRIPTION OF THE FIGURES

[0009] Many aspects of the present invention can be better understood with reference to the following figures. The components in the figures are not necessarily to scale, emphasis instead being placed upon clearly illustrating the principles of the present invention.

[0010] Figure 1 provides exemplary icons, which may be used for characterizing and labeling a home and garden product using a pest damage threat level hierarchy. In this

figure, the icons marked “Frequently Severely Damaged” for example, may appear in red, the icons marked “Occasionally Severely Damaged” may appear in orange, the icons marked “Seldom Severely Damaged” may appear in yellow and the icons marked “Rarely Damaged” may appear in green.

[0011] Figure 2 provides an offering from a home improvement and gardening retail establishment showing two icons from a pest damage threat level hierarchy for a home and garden product in the panel marked “AFTER”. In this figure, the rabbit icon may, for example, appear green to indicate that the plant item is rarely damaged by rabbits. The deer icon may, for example, appear yellow to indicate that the plant item is seldom severely damaged by deer.

[0012] Figure 3 provides an offering from a home improvement and gardening retail establishment showing an icon from a pest damage threat level hierarchy for a home and garden product. In this figure, the deer icon may, for example, appear in red to indicate that the plant item is frequently severely damaged by deer.

DETAILED DESCRIPTION

[0013] The present invention provides methods for characterizing a home and garden product using a pest damage threat level hierarchy. The present invention also provides methods for recommending at least one pest management product using icons to represent a threat level for the home and garden product from the pest damage threat level hierarchy. The present invention further provides methods of setting active reminders by a user in order to use and/or purchase at least one pest management product.

Definitions

[0014] Unless otherwise defined, all technical and scientific terms used herein have the same meaning as commonly understood by one of ordinary skill in the art to which the invention belongs. Although methods and materials similar or equivalent to those described herein can be used in the practice or testing of methods featured in the invention, suitable methods and materials are described below.

[0015] For convenience, the meaning of certain terms and phrases employed in the specification, examples, and appended claims are provided below. The definitions are not

meant to be limiting in nature and serve to provide a clearer understanding of certain aspects of the present invention.

[0016] The term “alter the movement” as used herein refers to the ability of a formulation to change the mobility or direction of a pest. For example, a repellent formulation applied to a surface may “alter the movement” of such pests by making a region of application near the surface unattractive to the insects and prevent the insects from approaching the surface.

[0017] The term “attractant” as used herein refers to any composition or formulation that makes attractive to pests a habitat, food source or other site which may be frequented or traversed by the pests.

[0018] The term “consumable” refers to any product or object that may be tracked by a means such as a bar code, Universal Product Code (UPC), Quick Response code (QR Code®) and the like.

[0019] The term “coupon” refers to a ticket or document, which may be electronic, that may be exchanged and/or redeemed for a financial discount and/or rebate when purchasing a consumable.

[0020] The term “generally accepted as safe” or “GRAS” refers to an American Food and Drug Administration (FDA) designation that a chemical and/or substance is exempted from the usual Federal Food, Drug, and Cosmetic Act (FFDCA) tolerance requirements.

[0021] The term “home and garden product” refers to a product which may be sold at a home improvement and gardening retail establishment. An example of a home and garden product includes, but is not limited to, plants.

[0022] The term “icon” refers to an image, picture, representation and/or pictogram that may convey meaning.

[0023] The term “information placard” refers to a sign, display, a card, tag, notice, attachment, paper and/or plaque which may display information. The information placard of the present invention may further include electronic and non-electronic means.

[0024] The term “loyalty card” refers to a plastic, paper and/or virtual card for a store and/or company that identifies a card holder as a member of the store and/or company’s loyalty program.

[0025] The term “mobile device” refers to a portable, hand-held, device. Examples of mobile devices include, but are not limited to smartphones, personal data assistants (PDAs), tablet computers, electronic book devices, devices with wireless connectivity, and mobile checkout devices.

[0026] The term “paper mailing” is a system for transporting letters and other tangible objects. The system includes carriers such as, but is not limited to, the United States Postal Services, Federal Express (FedEx ®), and UPS ®.

[0027] The term “pests” refers to any living organisms that are not wanted and/or that may cause damage to plants, crops, food, turf, humans and/or other animals. Examples of pests include insects, mice, squirrels, rodents and other animals, unwanted plants (weeds), fungi, microorganisms such as bacteria and viruses, and prions.

[0028] The term “plants” refers to any kind of photosynthetic, eukaryotic, multi-cellular organism of the kingdom Plantae.

[0029] The term “pest management product” refers to any composition or formulation or mixture thereof intended for preventing, destroying, repelling, mitigating, attracting, or altering the movement of pests.

[0030] The term “repellent” as used herein refers to any composition or formulation which may makes a habitat, food source or other site ordinarily sought or frequented unattractive to pests.

[0031] The term “retail establishment” refers to a physical site and/or online retail store at which consumables are offered for sale.

[0032] The term “threat level” refers to an indication of the likelihood of pest threat and/or damage toward a home and garden product.

[0033] The term “user” includes, but is not limited to, an employee, customer, prospective customer, or consumer.

[0034] The term “Wi-Fi” relates to a mechanism that allows a mobile device to exchange data wirelessly over a computer network.

Pest Damage Threat Level Hierarchy and Recommendation of Pest Management Products

[0035] In one embodiment of the present invention, methods are provided for characterizing a consumable which may be a home and garden product, such as, but not limited to, plants, using a pest damage threat level hierarchy. Examples of plants include, but are not limited to, trees, shrubs, flowering plants, vegetable plants, ferns, mosses, grasses, sphagnum bogs, desert soil crusts, roadside weed patches, lawns, agriculture fields, cultivated and commercial gardens. To characterize consumables which are home and garden products, a pest damage threat level hierarchy may be created using a reference table which may include home and garden product information such as, but not limited to, a plant's information such as the common name, Latin name, type, size, shape, plant growth requirements and a listing with a rating for each pest that poses a likelihood of threat towards each plant. As a non-limiting example, a reference table, Table 1, may include the following entry for an apple tree and blueberry plant for the pest damage threat level for deer.

Table 1. Reference Table

Common Name	Latin Name	Type	Threat Level
Apple Tree	Malus domestica	Tree	Deer – frequently damaged
Blueberry Plant	Cyanococcus	Perennial	Deer – seldom severely damaged

[0036] In a further embodiment, the table may also include information such as, but not limited to, the frequency of treatment of home and garden product with at least one pest management product, amount of pest management product needed, efficacy time of the pest management product, and type of pest management products which may be used with a given threat level.

[0037] In one embodiment, the threat level for each pest may be used to label home and garden products using icons to inform a user of the likelihood of pest damage to a particular home and garden product. The label may be located on the home and garden product such as, but is not limited to, on an information placard for the home and garden product and/or the home improvement or gardening retail establishment, on a webpage for the home and garden product and/or the home improvement or gardening retail

establishment, on a mobile device application for the home and garden product and/or the home improvement or gardening retail establishment.

[0038] A consumable may be labeled with one or more than one icon to inform the user of possible pest damage. To indicate the pest damage threat level, the icon may include features, such as, but not limited to, symbols, letters, words, pictures and colors. As a non-limiting example, an icon for a consumable, which is a home and garden product, may contain a colored circle to represent a threat level. The circle may be different for each threat level such as, but not limited to, a red circle, which indicates that a home and garden product may be frequently severely damaged by a pest, an orange circle, which indicates that a home and garden product may be occasionally severely damaged by a pest, a yellow circle, which indicates that a home and garden product may be seldom severely damaged by a pest and a green circle, which indicates that a home and garden product may be rarely damaged by a pest. Examples of pictures which may be included on the icons are pests such as, but not limited to, mice, rats, squirrels, rodents, opossums, raccoons, bears, bats, beavers, voles, rabbits, deer, elk, birds, foxes, gophers, moles and household pets. Colors which may be used on the icons include, but are not limited to red, green, blue, yellow, orange, purple, black, white, brown and shades and variants thereof.

[0039] In a further embodiment, the icons may include an image of a pest along with a color in order to indicate the pest damage threat level. Embodiments of the present invention are shown in Figures 1-3 to inform a user of the pest damage threat level for a home and garden product. In Figure 1, four different icons are used to indicate different categories from the pest damage threat level hierarchy for a home and garden product for deer and rabbits. The different colors may be used to indicate four categories of harm from the hierarchy. In this figure, red circles, for example, may be used to indicate that a home and garden product may be frequently severely damaged, orange circles, for example, may be used to indicate that a home and garden product may be occasionally severely damaged, yellow circles, for example, may be used to indicate that a home and garden product may be seldom severely damaged and green circles, for example, may be

used to indicate that a home and garden product may be rarely damaged by deer or rabbits.

[0040] Figure 2 provides a before and after view of a webpage for a home improvement or gardening retail establishment showing icons which may inform a user of possible pest damage for the home and garden product they are viewing. Figure 3 provides a before and after view on a mobile device of a webpage or a mobile device application for a home improvement or gardening retail establishment displaying icons in order to inform a user of possible pest damage for the home and garden product they are viewing. The webpage and/or mobile device application may display no icons, one icon or more than one icon for each home and garden product to inform the user of possible pest damage. When no icons are displayed, words, charts, tables, diagrams, links and the like created from the pest damage threat level hierarchy may be displayed instead. The icons may include hyperlinks which may direct the user to suggested pest management products or provide a definition or statement relating to the pest damage threat level hierarchy in a tooltip, in a mouse-over, a new window, a pop-up window, a new page or the like. The hyperlinks may further allow the user to read and/or purchase the suggested pest management products for their home and garden product. The icons may also provide the user with detailed information such as, but not limited to, the pest damage level for at least one pest, products to use for each pest suggested, frequency of the application of the pest management products, efficacy time of the pest management products, and amount of the pest management product needed.

[0041] Figure 3 also provides a before and after view of an information placard for a home improvement or gardening retail establishment showing where icons may be displayed in order to inform a user of possible pest damage for the home and garden product. An information placard may include information such as, but not limited to, the home and garden product common name and/or the Latin name, a picture of the home and garden product, a Quick Response code (QR code®) that can be scanned with a mobile device having a camera, and at least one icon representing the pest damage threat level for the home and garden product. When no icons are displayed, words, charts, tables, diagrams, links and the like created from the pest damage threat level hierarchy

may be displayed instead. The information placard may have information for the home and garden product displayed on one or more sides of the placard. Non-limiting examples of information placards include sale signs related to the home and garden product, plastic and/or paper tags in the home and garden product, and plastic and/or paper tags attached to the home and garden product.

[0042] In one embodiment, the method of characterizing a consumable which may be a home and garden product may further include suggesting at least one pest management product for use with the home and garden product. The pest management product suggested may be based on the threat level categorized from the pest damage threat level hierarchy for the home and garden product. The pest management product suggested may include, but is not limited to, products to prevent, destroy, repel, mitigate, attract, lure or alter the movement of pests. Non-limiting examples of suggested products include repellents, attractants, pest management systems and pest control devices. The pest management product suggested may further be categorized as generally regarded as safe (GRAS).

[0043] When a pest management product may be suggested to a user, information about the pest management product may further be provided including, but not limited to, pest damage threat level hierarchy and associated threat levels, the efficacy time of the suggested product, the amount of product required for a given period of time such as, but not limited to, one week, one month or one year of pest damage maintenance, and a rating of a pest damage control product such as, but not limited to, a consumer review, home improvement and gardening retail establishment review, efficacy review and the like.

[0044] In one embodiment, a consumable may be suggested to a user at a time such as, but not limited to, online, in store and/or at the point of sale. Examples of where a pest management product may be suggested to the user include, but are not limited to, an information placard for the home and garden product and/or the home improvement or gardening retail establishment, on a webpage relating to the home and garden product and/or the home improvement or gardening retail establishment or on a mobile device

application relating to the home and garden product and/or the home improvement or gardening retail establishment.

[0045] In one embodiment, the computer program and/or mobile device application for the home improvement or gardening retail establishment may include location software in order to determine where the user is at a given time in order to provide the user with information. The location software may tell the computer program and/or mobile device application when a user is near or in a home improvement or gardening retail establishment using methods such as, but not limited to, global positioning systems (GPS) or Wi-Fi networks in proximity to the user. The computer program and/or the mobile device may automatically send the user information by a method such as, but not limited to, a text message or the like to the mobile device, a push notification, an E-mail and a phone call. The information sent to the user may include coupons for at least one consumable available from the home improvement or gardening retail establishment, reminders to purchase and/or use consumables the user has entered or were automatically entered on the computer program and/or mobile device application for the home improvement or gardening retail establishment, general broadcast messages, and current sales and/or promotions at the home improvement or gardening retail establishment. The information sent to the user may be selected by the user or it may be automatically provided to the user from a standard protocol.

Registration and Active Reminders

[0046] In one embodiment of the present invention, the method may further include reminding a user to replace, fix, use and/or purchase a consumable. In some embodiments, the consumable may be at least one pest management product. In some embodiments, the consumable may be a home and garden product including, but not limited to a yard-related product, a pool-related product, a winter-related product, a seasonal holiday-related product, a household-related product, a pet-related product, an exterior-related product and/or an equipment maintenance-related product. As used herein, the term “yard-related product” refers to a home and garden product useful in a yard, garden or outdoor area. Yard-related products include, but are not limited to flowering plants, vegetable plants, ferns, shrubs, trees, mosses, grasses, seeds, bulbs,

pots, planters, tomato cages, fertilizers, mulch, edging, landscaping fabric, weed killers, gardening gloves, green houses, fencing, hoses, sprinklers, watering timers, gardening tools, mowers, rakes, edgers, leaf blowers, tillers, cultivators, grills, propane tanks, propane, charcoal, yard clean-up bags, bird feeders and bird food. As used herein, the term “pool-related product” refers to a home and garden product useful in the construction, maintenance, modification or removal of a pool or hot tub. Pool-related products include, but are not limited to filters, chemicals, chemical testing supplies, chemical testing strips, chemical testing kits, chemical testing solutions, pool covers and winterizing accessories. As used herein, the term “winter-related product” refers to a home and garden product useful during winter seasons and/or cold climates. Winter-related products include, but are not limited to ice melting products, sand, salt, roof de-icing cable, shovels, scrapers, winter shrub covers, space heaters and snow blowers. As used herein, the term “seasonal holiday-related product” refers to a home and garden product useful during one or more seasonal holidays including, but not limited to Christmas, Easter, Independence Day, Halloween, Labor Day, Memorial Day and Thanksgiving. Seasonal holiday-related products include, but are not limited to lights, inflatable lawn decorations, decorative trees, artificial trees, wreaths, ornaments, lawn ornaments, garland, flags, bunting, fireworks and candles. As used herein, the term “household-related product” refers to a home and garden product useful within a home or other building. Household-related products include, but are not limited to cleaning supplies, brushes, dusters, sponges, mops, brooms, toilet brushes, cleaning solutions, detergents, toilet bowl cleaner tablets, drain cleaning products, bleach, smoke alarms, batteries, trash bags, vacuum cleaner bags, canning products, food preservation products, ant traps and mouse traps. As used herein, the term “pet-related product” refers to a home and garden product useful in the care and/or maintenance of one or more pets including, but not limited to dogs, cats, birds, rodents, fish and livestock. Pet-related products include, but are not limited to pet food, litter, flea prevention products, tick prevention products, collars and grooming products. As used herein, the term “exterior-related product” refers to a home and garden product useful in the treatment, modification and/or maintenance of the exterior of a home or other building. Exterior-related products

include, but are not limited to water-proofing products, weather-proofing products, paints, caulking, sealers and stains. As used herein, the term “equipment maintenance – related product” refers to a home and garden product useful in the maintenance of home and garden products comprising equipment including, but not limited to machines, motors, vehicles and/or appliances. Equipment maintenance-related products may comprise oils, lubricants and fuel stabilizers. Equipment maintenance-related products may also comprise repair and/or maintenance services including, but not limited to refrigerator maintenance-related services, dishwasher maintenance-related services, washing machine maintenance-related services, dryer maintenance-related services, microwave maintenance-related services, snow blower maintenance-related services, lawn mower maintenance-related services, tractor maintenance-related services, leaf blower maintenance-related services, generator maintenance-related services, air conditioner maintenance-related services, space heater maintenance-related services, and blade sharpening services.

[0047] The reminder may be created by the user or the reminder may be automatically set up such as, but not limited to, when the home and garden product may be purchased and/or registered on a computer program. The user may create the reminder by logging onto the computer program for the home improvement or gardening retail establishment by using information including, but not limited to, name, address, user name, password, loyalty card number, credit card number, email address, personal identification number (PIN) and phone number. The user may further enter information relating to the home and garden product such as, but not limited to, plant name, Latin name, product and/or item number, number of home and garden products purchased, plant color, plant placement, climate, area covered by the home and garden product and the terrain where the home and garden product is located in order to customize the reminder.

[0048] In one embodiment, the reminder may be set up automatically when the user purchases the home and garden product at the home improvement or gardening retail establishment such as, but not limited to, at the point of sale. The home and garden product may be registered when a home improvement or gardening retail establishment employee scans and/or enters a user’s information such as, but not limited to, name,

address, user name, password, loyalty card number, credit card number, email address, PIN and phone number. The home and garden product may further be registered automatically when a user scans the bar code, Universal Product Code (UPC) or QR Code® for the home and garden product using a scanning device such as, but not limited to, a mobile device. The user may further log on to the computer program for the home improvement or gardening retail establishment using information such as, but not limited to, name, address, user name, password, loyalty card number, credit card number, email address, PIN and phone number and enter additional home and garden products. The user may also log on to the computer program to enter information such as, but not limited to, number of home and garden products purchased, plant color, plant placement, climate, and terrain where the home and garden product is located.

[0049] In one embodiment, the reminder may be set up automatically when a user purchases the home and garden product online on a home improvement or gardening retail establishment website or mobile device application. The website and/or mobile device application may prompt for or store a user's information such as, but not limited to, name, address, user name, password, loyalty card number, credit card number, E-mail address, PIN and phone number in order to register the home and garden product.

[0050] Once a home and garden product is registered on a computer program the user may conduct searches in the computer program or on the home improvement or gardening retail establishment's website for additional consumables. As a non-limiting example, a user may register a home and garden product and then conduct searches for pest management products using a home and garden product checklist suggesting products to optimize the life of the home and garden product. The home and garden product checklist may include, but is not limited to, planting mix, potting soil, pest control, plant starter, slow release fertilizer, organic mulch, planting tools, pre-emergent weed control, soaker hose, containers, landscape edging, trimming tools, and grass seed.

[0051] In one embodiment, a user may be notified by at least one method such as, but not limited to, E-mail, text message, voice message, push notification and paper mailing. The notification may include additional information selected by the user or automatically generated from a set list. Information includes, but not limited to, type of plant, type of

pest management product to apply, how much pest management product to apply, how much pest management product the user has in their stock, how much pest management product the user needs to purchase and a coupon relating to a consumable which may be sold at the home improvement or gardening retail establishment. The coupon may relate to consumables associated to and/or complementary with the home and garden product or to a consumables not associated to the home and garden product. As a non-limiting example, the coupon may be for a consumable that relates to a home and garden product such as a pest management product or the coupon may be for consumables such as, but not limited to, batteries, air filters, smoke detectors, wrenches and light bulbs.

[0052] In a further embodiment, the user may either sign up for or be automatically enrolled to receive general broadcast messages from the home improvement or gardening retail establishment, suppliers of the home improvement or gardening retail establishment, and/or partners of the home improvement or gardening retail establishment. The general broadcast messages may include information such as, but not limited to, tips relating to the use of consumables such as, but not limited to, home and garden products, new warning messages related to home and garden products, findings from recent studies conducted on home and garden products, new home and garden products available or soon to be available at the home improvement or gardening retail establishment or a combination thereof. The general broadcast messages may also include coupons or hyperlinks to coupons which the user may download to a mobile device, a loyalty card for the home improvement or gardening retail establishment and/or print. The coupons may or may not relate to consumables mentioned in the general broadcast messages which are available at the home improvement or gardening retail establishment. A user may receive general broadcast messages by at least one method such as, but not limited to, E-mail, text message, voice message, push notification and paper mailing. A user may further select the general broadcast messages they want to receive by selecting from groups such as, but not limited to, categories of consumables, messages relating to consumables associated with the home and garden products registered to the home improvement or gardening retail establishment computer program, and messages from suppliers of consumables associated with the home and garden

products registered to the home improvement or gardening retail establishment computer program.

[0053] In a further embodiment, the user may select the time interval in which to receive a notification or the notification may be automatically initiated depending on the home and garden product registered. The user may select a notification on a basis including, but not limited to, daily, every 2 days, every 3 days, every 4 days, every 5 days, every 6 days, weekly, monthly, bimonthly, biannually, annually, biyearly, and seasonally.

EXAMPLES

Example 1. Recommendation of Pest Management Product and Set-Up of Active Reminders

Table 2. Pest Damage Threat Level Hierarchy

Plant type	Pest of concern	Threat Level	Label	Pest Management Product	Active Reminder
Petunias	Rabbits	Frequently Severely Damaged	Red Icon	Rabbit Repellent	16oz bottle per bush/60 days Email notification 60 days after last product purchase. Email notification every 3 days to apply product
Petunias	Squirrels	Occasionally Severely Damaged	Orange Icon	Squirrel Repellent	16oz bottle per bush/60 days Email notification 60 days after last product purchase. Email notification every 3 days to apply product
Geraniums	Rabbits	Rarely Damaged	Green Icon	None	N/A

A. User purchase in store

[0054] A user may purchase a home and garden product of petunia flowers and geranium flowers at a home improvement or gardening retail establishment. The pest damage threat level hierarchy may indicate that petunias are frequently severely damaged

by rabbits and occasionally severely damaged by squirrels and geraniums are rarely damaged by rabbits. In this case, the icons that will be displayed on the petunia information placards, website and/or mobile device application may feature a red icon with an image of a rabbit to indicate severe damage and an orange icon with an image of a squirrel to indicate occasional severe damage and the geraniums will feature a green icon with an image of a rabbit to indicate rarely damaged.

B. User purchase online

[0055] When a user purchases the petunias and geraniums online, the user can click on the red, orange, or green icons for petunias or geraniums, respectively, to obtain the names and ratings of suggested pest management products so they may prevent pest damage to the home and garden product.

C. Registration and active reminders

[0056] A user can register their petunia and geranium purchase on a computer program so they may set up a reminder and/or notification to replenishing and/or apply pest management products to their flowers. A user may set up an email notification to be reminded every 3 days to apply the pest management product. The user may further set up a reminder in 60 days to purchase more pest management product for their petunias and geraniums.

[0057] It should be emphasized that the above-described embodiments of the present invention, are merely possible examples of implementations, merely set forth for a clear understanding of the principles of the invention. Many variations and modifications may be made to the above-described embodiments of the invention without departing substantially from the spirit and principles of the invention. All such modifications and variations are intended to be included herein within the scope of this disclosure and the present invention and protected by the following claims.

CLAIMS

1. A method comprising:
 - (a) characterizing a home and garden product by pest damage threat level; and
 - (b) labeling said home and garden product with at least one icon representing a threat level from a pest damage threat level hierarchy.
2. The method of claim 1 where the home and garden product is a plant.
3. The method of claim 2 where the plant is selected from the group consisting of flowering plants, vegetable plants, ferns, shrubs, trees, mosses and grasses.
4. The method of claim 1 where the pest damage threat level hierarchy is sorted into 4 categories.
5. The method of claim 4 where the 4 categories are rarely damaged, seldom severely damaged, occasionally severely damaged and frequently damaged.
6. The method of claim 1 where the at least one icon includes at least one image of a pest from the pest damage threat level hierarchy.
7. The method of claim 1 where the at least one icon is presented on an information placard for the home and garden product and/or the home improvement or gardening retail establishment, a webpage for the home and garden product and/or the home improvement or gardening retail establishment, or a mobile device application for the home and garden product and/or the home improvement or gardening retail establishment.
8. The method of claim 1 where the at least one icon includes at least one color.
9. The method of claim 8 where the at least one color is indicative of a category of the pest damage threat level hierarchy.
10. The method of claim 9 where the at least one color is selected from the group consisting of green, blue, yellow, orange, red, purple, black, white, brown and variants thereof.
11. The method of claim 8 where the at least one icon further includes at least one image of a pest for the pest damage threat level hierarchy.
12. The method of claim 11, wherein the pest is selected from the group consisting of mice, rats, squirrels, rodents, opossums, raccoons, bears, bats, beavers, voles, rabbits, deer, elk, birds, foxes, gophers, moles and household pets.

13. The method of claim 1 further comprising: (c) suggesting at least one pest management product for use and/or purchase with the threat level associated with home and garden product.
14. The method of claim 13 where the suggestion occurs at a time selected from the group consisting of online, in store or at the point of sale.
15. The method of claim 13 where the suggestion occurs at a location selected from the group consisting of an information placard for the home and garden product and/or home improvement or gardening retail establishment, a webpage relating to the home and garden product and/or the home improvement or gardening retail establishment, and a mobile device application relation to the home and garden product and/or home improvement or gardening retail establishment.
16. The method of claim 13 where the at least one pest management product is selected from the group consisting of repellents, attractants, management systems and pest control devices.
17. The method of claim 16 where the at least one pest management product is a repellent.
18. The method of claim 17 where the at least one pest management product is generally accepted as safe (GRAS).
19. A method of recommending at least one pest management product to a user of a home improvement or gardening retail establishment using at least one active reminder comprising:
 - (a) providing at least one home and garden product selected by said user;
 - (b) suggesting at least one pest management product for use with the at least one home and garden product; and
 - (c) setting a reminder for the user to use and/or purchase at least one pest management product for the home and garden product.
20. The method of claim 19 further comprising: (d) registering the home and garden product on a computer program with instructions to perform the method of claim 19.
21. The method of claim 20 where the computer program is associated with the home improvement or gardening retail establishment.

22. The method of claim 21 where registration occurs when the home and garden product is purchased.
23. The method of claim 21 where the registration occurs when a loyalty card for the home improvement and garden retail establishment is scanned upon purchase.
24. The method of claim 20 where the user registered the home and garden product on the computer program.
25. The method of claim 19 where the home and garden product is a plant.
26. The method of claim 25 where the plant is selected from the group consisting of flowering plants, vegetable plants, ferns, shrubs, trees, mosses and grasses.
27. The method of claim 19 where the user is selected from the group comprising of a customer, a prospective customer, an employee and a consumer.
28. The method of claim 19 where the at least one pest management product is suggested to the user on an information placard for the home and garden product, a webpage for the home and garden product or a mobile device application for the home and garden product.
29. The method of claim 19 where the at least one pest management product is selected from the group consisting of repellents, attractants, management systems and pest control devices.
30. The method of claim 29 where the at least one pest management product is a repellent.
31. The method of claim 30 where the at least one pest management product is generally accepted as safe (GRAS).
32. The method of claim 19 further comprising: (d) notifying the user with the reminder.
33. The method of claim 32 where the reminder can notify the user on a basis selected from the group consisting of daily, every 2 days, every 3 days, every 4 days, every 5 days, every 6 days, weekly, monthly, bimonthly, biannually, annually, biyearly, and seasonally.
34. The method of claim 33 where the notification can be selected from the group consisting of email, text message, voice message, push notification and paper mailing.
35. The method of claim 32 where the reminder further includes a coupon.
36. The method of claim 35, wherein the coupon is for the home and garden product.

37. A method of reminding a user of a home improvement or gardening retail establishment to replace, fix, use and/or purchase a consumable using at least one active reminder comprising setting a reminder for the user to replace, fix, use and/or purchase the at least one consumable.
38. The method of claim 37 wherein the method is carried out by a computer program in response to the registration of a home and garden product.
39. The method of claim 38 where the computer program is associated with the home improvement or gardening retail establishment.
40. The method of claim 39 where registration occurs when the home and garden product is purchased.
41. The method of claim 39 where the registration occurs when a loyalty card for the home improvement and garden retail establishment is scanned upon purchase.
42. The method of claim 38 where the user registered the home and garden product on the computer program.
43. The method of claim 37 comprising a reminder for the user to replace, fix, use and/or purchase at least one consumable selected from the group consisting of yard-related products, pool-related products, winter-related products, seasonal holiday-related products, household-related products, pet-related products, exterior-related products and equipment maintenance-related products.
44. The method of claim 43 wherein the at least one yard-related product is selected from the group consisting of flowering plants, vegetable plants, ferns, shrubs, trees, mosses, grasses, seeds, bulbs, pots, planters, tomato cages, fertilizers, mulch, edging, landscaping fabric, weed killers, gardening gloves, green houses, fencing, hoses, sprinklers, watering timers, gardening tools, mowers, rakes, edgers, leaf blowers, tillers, cultivators, grills, propane tanks, propane, charcoal, yard clean-up bags, bird feeders and bird food.
45. The method of claim 43 where the at least one pool-related product is selected from the group consisting of filters, chemicals, chemical testing supplies, chemical testing strips, chemical testing kits, chemical testing solutions, pool covers and winterizing accessories.

46. The method of claim 43 where the at least one winter-related product is selected from the group consisting of sand, salt, ice melting products, roof de-icing cable, shovels, scrapers, winter shrub covers, space heaters and snow blowers.
47. The method of claim 43 where the at least one seasonal holiday-related product is selected from the group consisting of lights, inflatable lawn decorations, decorative trees, artificial trees, wreaths, ornaments, lawn ornaments, garland, flags, bunting, fireworks and candles.
48. The method of claim 43 where the at least one household-related product is selected from the group consisting of cleaning supplies, brushes, dusters, sponges, mops, brooms, toilet brushes, cleaning solutions, detergents, toilet bowl cleaner tablets, drain cleaning products, bleach, smoke alarms, batteries, trash bags, vacuum cleaner bags, canning products, food preservation products, ant traps and mouse traps.
49. The method of claim 43 where the at least one pet-related product is selected from the group consisting pet food, litter, flea prevention products, tick prevention products, collars and grooming products.
50. The method of claim 43 where the at least one exterior-related product is selected from the group consisting of water-proofing products, weather-proofing products, paints, caulking, sealers and stains.
51. The method of claim 43 where the at least one equipment maintenance-related product is selected from the group consisting of refrigerator maintenance-related services, dishwasher maintenance-related services, washing machine maintenance-related services, dryer maintenance-related services, microwave maintenance-related services, snow blower maintenance-related services, lawn mower maintenance-related services, tractor maintenance-related services, leaf blower maintenance-related services, generator maintenance-related services, air conditioner maintenance-related services, space heater maintenance-related services, oils, lubricants, fuel stabilizers and blade sharpening services.
52. The method of claim 37 wherein the user is selected from the group consisting of a customer, a prospective customer, an employee and a consumer.

- 53. The method of claim 37 where the at least one consumable is suggested to the user on an information placard associated with a home and garden product, a webpage associated with a home and garden product or a mobile device application associated with a home and garden product.
- 54. The method of claim 37 comprising notifying the user with the reminder.
- 55. The method of claim 54 where the reminder can notify the user on a basis selected from the group consisting of daily, every 2 days, every 3 days, every 4 days, every 5 days, every 6 days, weekly, monthly, bimonthly, biannually, annually, biyearly, and seasonally.
- 56. The method of claim 55 where the notification can be selected from the group consisting of email, text message, voice message, push notification and paper mailing.
- 57. The method of claim 54 where the reminder further includes a coupon.
- 58. The method of claim 57, wherein the coupon is for the consumable.

Figure 1

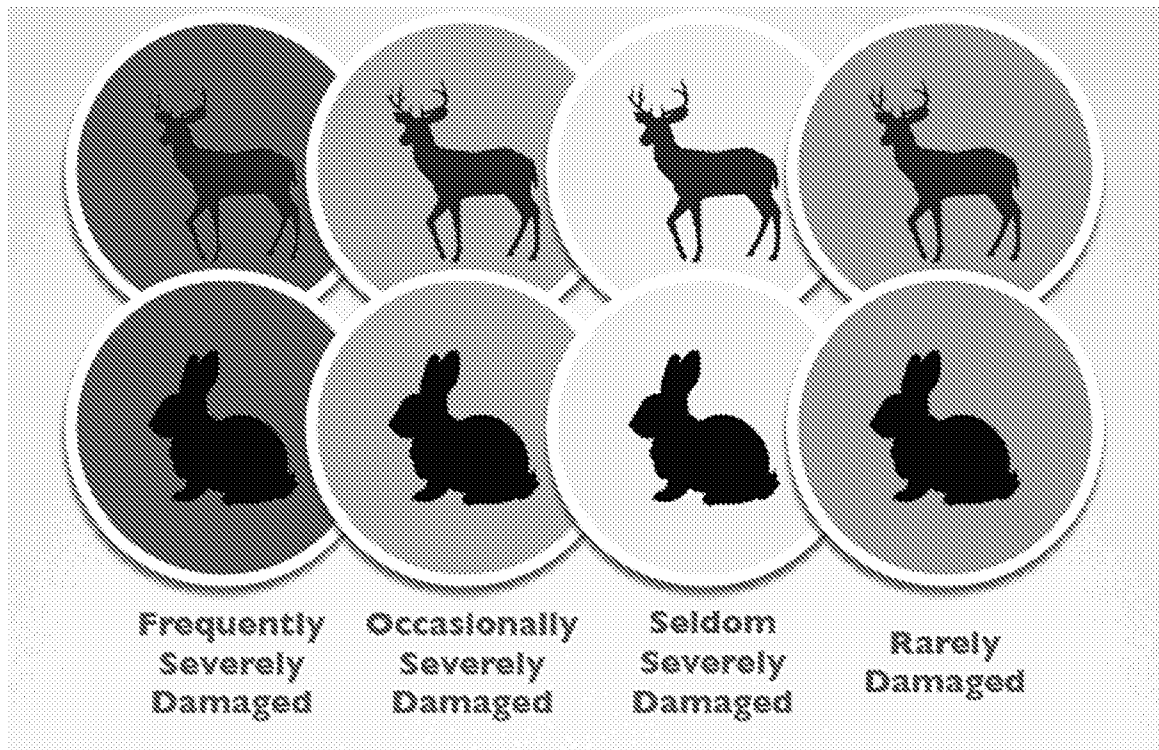


Figure 2

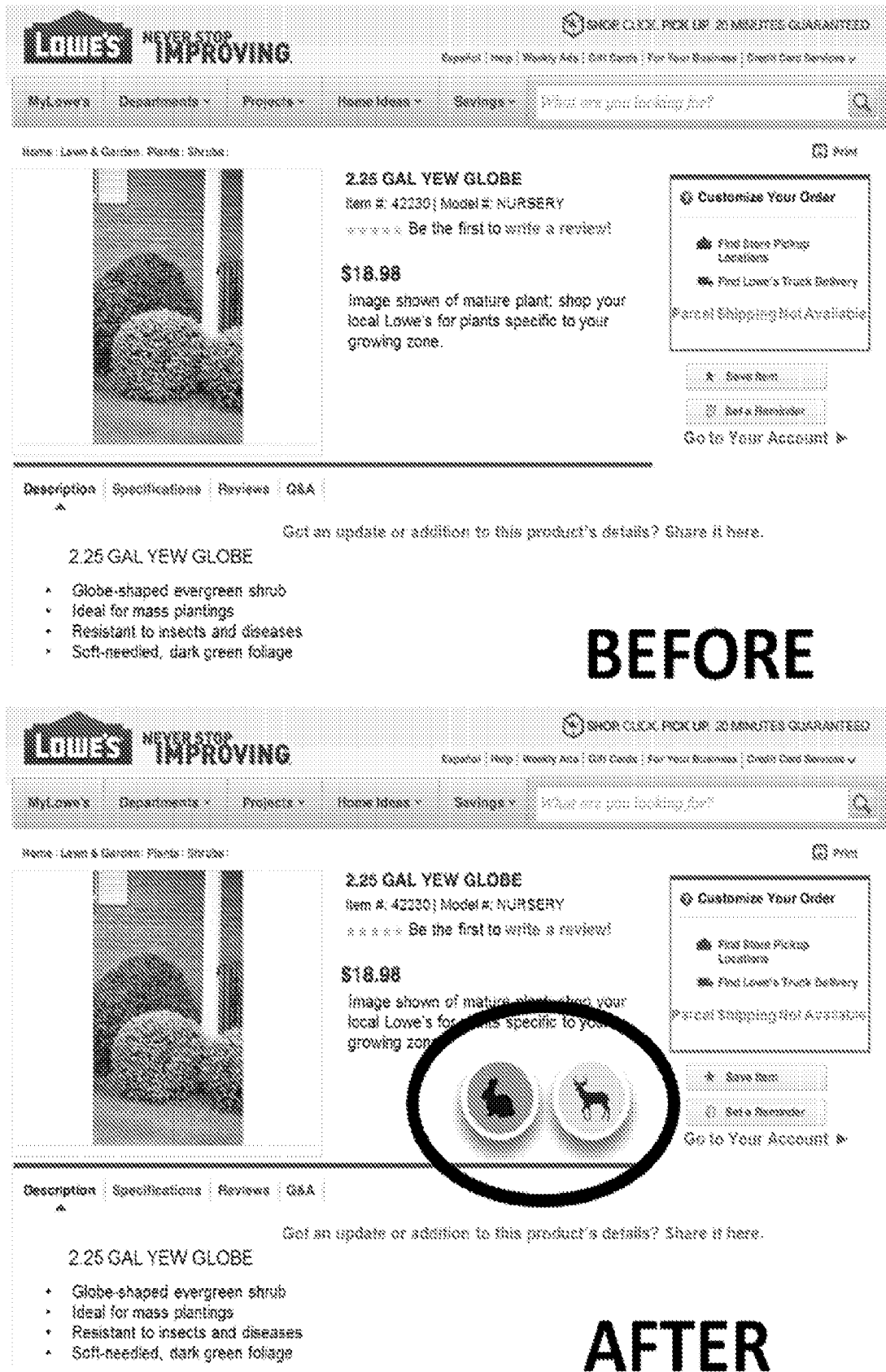
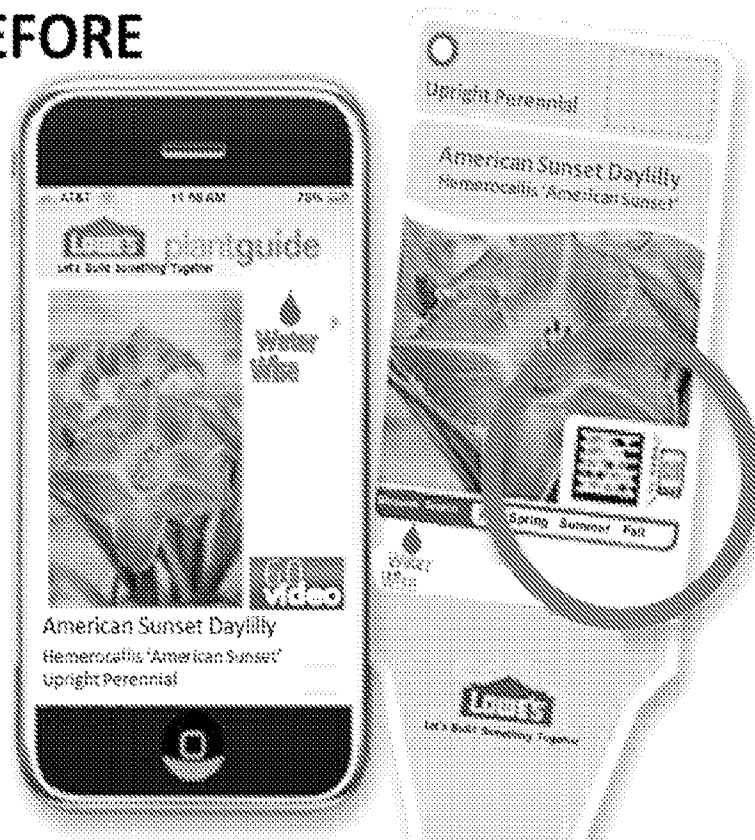
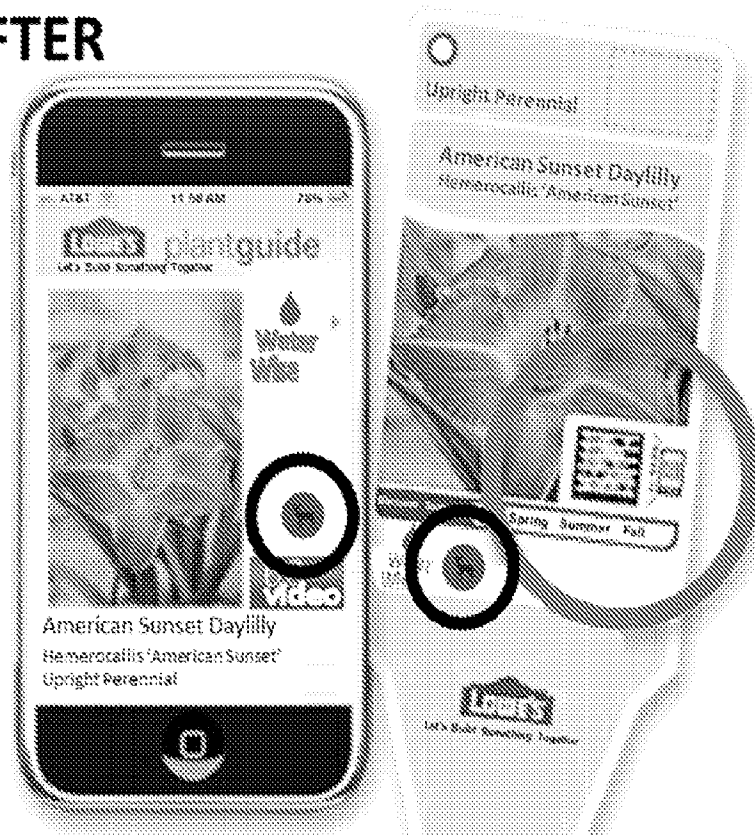


Figure 3

BEFORE**AFTER**

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2013/028960

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G09F 7/00 (2013.01)

USPC - 40/645

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8) - G09B 19/00; G09F 7/00, 23/00 (2013.01)

USPC - 40/584, 645; 111/200; 283/117; 434/433

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

CPC: G09F 3/12, 3/206; G09F 7/00, 23/00 (2013.01)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Questel Orbit, PatBase, Google Patents, Google.com

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 564 180 A1 (SOAR) 06 October 1993 (06.10.1993) entire document	1-18
Y	US 2010/0071096 A1 (YAMADA et al) 18 March 2010 (18.03.2010) entire document	1-18
Y	The Home Depot. Buying Guide: Air Filters, Our New Rating System Makes Comparing and Choosing an Air Filter Easy. 21 February 2009 (21.02.2009). [retrieved on 06.25.2013]. Retrieved from the Internet: <URL: http://www.homedepot.com/webapp/catalog/servlet/ContentView?pn=Air_Filters&storeId=10051&langId=-1&catalogId=10053 > entire document	1-18
Y	US 7,167,834 B1 (KELLEY et al) 23 January 2007 (23.01.2007) entire document	13-18
A	US 7,162,438 B1 (KELLY et al) 09 January 2007 (09.01.2007) entire document	1-18
A	Rave Plants. Rave Discount Plant Center, Animal Damage - What can you do?. 29 February 2009 (29.02.2009). [retrieved on 06.25.2013]. Retrieved from the Internet: <URL: http://www.raveplants.com/tips/animal-damage.htm > entire document	1-18
A	Pesticide Action Network. What's On My Food? 05 October 2011 (05.10.2011). [retrieved on 06.25.2013]. Retrieved from the Internet: <URL: https://itunes.apple.com/us/app/whats-on-my-food/id334912899?mt=8 > entire document	1-18

☐ Further documents are listed in the continuation of Box C.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search
24 June 2013

Date of mailing of the international search report

05 JUL 2013

Name and mailing address of the ISA/US
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PCT Helpdesk: 571-272-4300
PCT OSP: 571-272-7774

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2013/028960

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

See extra sheet.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-18

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2013/028960

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claims 1-18, drawn to characterizing a product by pest damage threat level and labeling the product with an icon representing that level.

Group II, claims 19-58, drawn to recommending a product to a user of a retail establishment using an active reminder comprising providing a selected product, suggesting a pest management/consumable product for use with the selected product and setting a reminder to use/purchase the pest management/consumable product.

The inventions listed as Groups I-II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the special technical feature of the Group I invention: characterizing a product by pest damage threat level and labeling the product with an icon representing that level as claimed therein is not present in the invention of Group II. The special technical feature of the Group II invention: recommending a product to a user of a retail establishment using an active reminder comprising providing a selected product, suggesting a pest management/consumable product for use with the selected product and setting a reminder to use/purchase the pest management/consumable product as claimed therein is not present in the invention of Groups I.

Groups I and II lack unity of invention because even though the inventions of these groups require the technical feature of a method comprising a home and garden product and pest damage, this technical feature is not a special technical feature as it does not make a contribution over the prior art in view of US 7,167,834 B1 (KELLEY et al) 23 January 2007 (23.01.2007), abstract, figures 2, 5-6, col 2, lines 6-18, col 3, lines 28 to col 4, line 5, col 5, lines 20-30.

Since none of the special technical features of the Group I or II inventions are found in more than one of the inventions, unity of invention is lacking.