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# NEWSLETTER 411



## Rodents: Insensitive Pests Use Incredible Senses

By Dr. Stuart Mitchell

Even with ongoing, cutting edge biological research, technological development, and integrated pest management practices, commensal rodents have survived within pestiferous proximity. As insensitive pests, rodents use incredible senses enabling astonishing environmental adaptation and survival through exploitation of human endeavors.

### Incredible Smell

Smell is one of the keenest and most critical senses. Both objects and pathways to and from food sources are marked. Individuals that are ready to mate differentiate between members of their colony and strangers. Strangers are determined to be weak or strong.

### Incredible Hearing

Hearing is in the frequency range of 50 kHz (50,000 cycles per second) or much higher than the range for humans at 20 kHz. Keen hearing can locate objects within a few inches. High frequency utterances are made during behaviors such as mating (although poorly understood, ongoing research continues to decipher this communication).

### Incredible Touch

Touch is highly developed through sensitive body hairs and vibrissae (well-innervated hair follicles). These bodily extensions are used to explore the environment. Movement within the explored that becomes the familiar is greatly reliant upon touch and smell. Stationary objects are preferred on at least one side as considerable travel is along walls (a key behavior when designing a control program).

### Incredible Taste

Taste is highly developed, allowing detection of some chemicals down to concentrations of parts-per-million (ppm). Such a keen sense may cause bait shyness or rejection upon contamination of baits by certain chemicals. Service assurance of uninterrupted, fresh, and food-quality ingredients promotes attraction and acceptance of quality rodenticide bait products.

### Not So Incredible Vision

Vision is poor beyond three or four feet. Visual perception of motion is sensitive up to 30 to 50 feet away. Essentially color-blind, light-colored or reflective objects may stand out within the environment (may cause avoidance behavior or neophobia with sensitive animals).

### Incredible Control

Control techniques must be designed to eliminate infestations. Surviving animals can produce a population leading to re-infestation. Controls can be and non-chemical and chemical.

continue...

## Rodents: Insensitive Pests Use Incredible Senses

### Incredible Non-Chemical

Non-chemical techniques can include live traps, snap traps, glue boards of various designs, and extended efforts such as habitat modification and structural inhabitant behavioral coaching. While effective, non-chemical techniques are usually complimented with rodenticides. The non-chemical technique of ultrasound has not been demonstrated to be effective.

### Incredible Chemical

Chemical controls in the form of quality anticoagulant rodenticides are most effective. Anticoagulants are slow acting and therefore do not encourage bait shyness. Vitamin K1 (phytomenadione) is the specific antidote in cases of accidental exposure via ingestion. Bitter taste deterrents are often incorporated into rodenticides, decreasing the possibility of ingestion by people and non-target animals.

### Incredible Ethics

Ethical pest control must consider the humaneness of control techniques. Maintain a balance between non-chemical and chemical techniques to achieve infestation elimination.

## Take 3 To Stay Well

### 1. Take time to get a flu vaccine.

- A yearly flu vaccine is the most important step in protecting against the flu.
- The flu vaccine protects against the three or four viruses that research suggests are most common.
- Flu vaccination can reduce flu illness, doctors' visits, missed school, and work.
- Everyone 6 months of age and older should get a flu vaccine.
- People at risk of serious flu complications (children, pregnant women, people with chronic health conditions like asthma, diabetes or heart and lung disease, and people 65 years and older) must get vaccinated.
- Vaccination is important for health care workers.

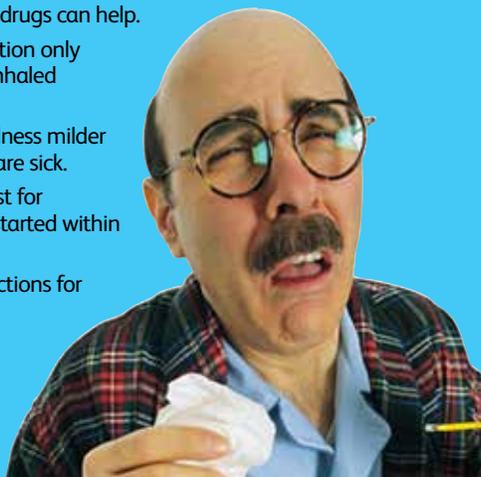
### 2. Take everyday preventive actions to stop the spread of germs.

- Try to avoid close contact with sick people.
- Flu-like symptoms include fever, cough, sore throat, runny or stuffy nose, body aches, headache, chills and fatigue (possibly vomiting and diarrhea).
- If you are sick with cold or flu-like illness, stay home for at least 24 hours after your fever is gone-without the use of a fever-reducing medicine (except to get medical care).
- While sick, limit contact with others as much as possible as to not make others sick.
- Avoid touching your eyes, nose, and mouth (spreads disease).
- Cover nose and mouth with a tissue (or inside elbow of arm) when you cough or sneeze (throw the tissue in the trash after use).
- Wash your hands often with soap and water. If soap and water are not available, use an alcohol-based hand cleaner.
- Clean and disinfect surfaces and objects.

### 3. Take flu antiviral drugs if your doctor prescribes them.

- If you get the flu, antiviral drugs can help.
- Antiviral drugs are prescription only medicines (pills, liquid, or inhaled powder).
- Antiviral drugs can make illness milder and shorten the time you are sick.
- Flu antiviral drugs work best for treatment when they are started within 2 days of getting sick.
- Follow your doctor's instructions for taking this drug.

Source: CDC



## Marvelous Micros (MBG)!

By Scott Baldwin, ACE

Prior to selling the F&Bs of MBG, first effectively understand the product, and secondly, determine target prospects. Superior understanding leads to superior sales.

### Let's start with the definition of MicroBlend G (MBG).

MicroBlend G is an ultra-fine, super- concentrated, dry formulation, water-soluble Bac-Pac or bulk powder engineered to digest organic "sludge." Ultra fine powder is engineered to reduce or eliminate common wastewater organics. MBG is strategically engineered on a "food ready" base to further reduce sludge, such as animal and vegetable fat, oil, and grease buildup. Lowering overall sludge buildup provides a balanced microbiological population that avoids upsets. Bio-Gel/ MicroBlend G performs well in all environments, including low oxygen.

- Ultra high concentration bacterial count
- Not sensitive to wide temperature variations
- Wide range of degradation capabilities and odor remediation
- Aides in organic debris composting
- Developed to easily calculate dosage needed for lagoons and large spraying systems

The MBG Bac-Pac is designed to conveniently "toss" into lagoons for both odor and gray/black water reductions. Dosage calculations are based upon the number of gallons within the body of water. Bac-Pacs can be flushed down a toilet to aid optimum septic system function.

MBG bulk ultra fine powder is engineered for many uses; including reduction of moisture-rich organic masses around manure piles, watering units near livestock pens, calf hutches, stables, swine and equine barns, manure pits within egg laying establishments, dumpsters, heavy organic build up on concrete, and many others. MBG can be strategically applied with a sprayer (constant agitation is essential to efficacy).

MicroBlend G is one of many of PestWest's advanced, biologically engineered products. Superior bioremediation products to enable any advanced resource-cleaning program.





By Andy McGinty, LIPCA Insurance & Dr. Stuart Mitchell

Over approximately the last 2 years we have observed that while in the pursuit of structural pests such as bed bugs, fleas, and other influential insects, inappropriate or counter-labeler use of dust formulations has resulted in a significant increase of both claims and lawsuits.

Throughout the U.S., whether performed by pest management professionals or wildlife damage control professionals (licensed and certified to apply a dust formulation), some applications have resulted in third parties and/or consumers filing complaints with the courts and/or regulatory agencies. Claims are not limited to certain areas of the country. We have handled, or helped PMPs handle, exposures in all four corners of the country.

There is one common "statement" that we constantly hear with "dusting" or dust application claims. It is made by about every dusting expert and regulatory official as well as anyone involved with the claimant or plaintiff.

**"If the consumer can see the dust, you used too much!"**

Of course there are some that disagree, but when you have a number of credible experts testifying to this statement being true, it does make it difficult for your defense. On the claims side, it is so easy. If you have an insurance person or expert in litigation that knows these exposures, CALL THEM! That is everything!

Dust formulations, when applied correctly or per labeler directions, are exceptionally effective in the reduction and elimination of pest pressures. However, nowhere on a dust insecticide label have we ever read, "apply per resident's demands" or "applications should be per the property owners' and/or residents' requirements" or "treat if you feel like it." So why do it?

Pragmatically, and within the IPM template, product labels blend all required information to provide the "How to..." within an environmental assessment. Dust applications must result in a fine surface film within unexposed and/or inaccessible sites. In pursuit of structural pests, dust applications must approach the IPM goal of environmentally benign as well as the prevention of claims and losses.

## For your information...

### The sections of the 2013 FDA Food Code that apply to insect light systems.

#### 6-202.11 Light Bulbs, Protective Shielding.

- (A) Except as specified in ¶ (B) of this section, light bulbs shall be shielded, coated, or otherwise shatter-resistant in areas where there is exposed FOOD; clean EQUIPMENT, UTENSILS, and LINENS; or unwrapped SINGLE-SERVICE and SINGLE-USE ARTICLES.
- (B) Shielded, coated, or otherwise shatter-resistant bulbs need not be used in areas used only for storing FOOD in unopened packages, if:
  - (1) The integrity of the packages cannot be affected by broken glass falling onto them; and
  - (2) The packages are capable of being cleaned of debris from broken bulbs before the packages are opened.

#### 6-202.13 Insect Control Devices, Design and Installation.

- (A) Insect control devices that are used to electrocute or stun flying insects shall be designed to retain the insect within the device.
- (B) Insect control devices shall be installed so that:
  - (1) The devices are not located over a FOOD preparation area; and
  - (2) Dead insects and insect fragments are prevented from being impelled onto or falling on exposed FOOD; clean EQUIPMENT, UTENSILS, and LINENS; and unwrapped SINGLE-SERVICE and SINGLE-USE ARTICLES.



# TIME FOR A CHANGE?

Just because a lamp in a flying insect management system glows, you simply can't assume that it's emitting enough UV to attract flying insects. Use the **UV-AMETER** as a measuring tool and install Quantum brand lamps. Field tested and trusted by professionals worldwide.

INNOVATION // QUALITY // POWER



- 100% lead free
- Ultimate performance through environmentally responsible phosphors
- 40% more powerful and 100% more effective
- Shatter resistant coatings won't discolor, melt or flake



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The quick & easy way to test lamp efficiency



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