



Biodegradable
Recyclable

United Bio Lube

Enabling Compliance with White House Executive Orders
13101, 13123, 13134, 13148, 13149

Sustainable
Renewable



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A Green Chemistry Company

Enabling U.S. Oil Independence

Bio Penetrating Lubricants

Military Government Industry Transportation Marine Agriculture

Green Chemistry for OEMs, Fleets, Auto Repair, Bicycles, Boating, Motorcycles, Construction, Maintenance, Landscaping, Gardening, Farming, Restoration, Home

- **Advanced Equipment Protection** [Technical Overview]
- **Return On Capital Investment** [Economic Incentives]
- **Made From Renewable Resources** [U.S. Green Chemistry]
- **Government Regulatory Compliance** [USDA BioPreferred]
- **Summary of Key Benefits** [UBL's Quadruple Bottom Line]

Go Green! Soy-based Renewable Lubricant Replaces WD40!

United Bio Lube sells **Bio Penetrating Lubricants** to Original Equipment Manufacturers (OEM), Wood & Metalworking Facilities, Fleet Maintenance & Auto Repair Shops, Machine Shops, Lock Smiths and Restoration/Cleaning/Handyman/Janitorial Services all across America.

An ideal product for **LEED Certified Green Buildings**, **BPL™ - Bio Penetrating Lubricant w/ Bio Corrosion Inhibitors** is both a superior and renewable alternative to hazardous WD40, 3in1, TriFlow, Liquid Wrench, PowerLube, LPS#2, PB-Blaster, Mouse Milk, Unilease, GT85, Kroil, CRC 5-56 and all other toxic petroleum products!

A Green Chemistry Break-Through!

United Bio Lube offers higher performance, new safety features, and a series of Return On Investment (ROI) incentives for switching over to biobased lubricants made from renewable **Green Chemistry**.

United Bio Lube's Bio Penetrating Lubricants apply the sound principles of **Green Chemistry** to achieve new worker safety and environmental standards while protecting capital investments in equipment, tools, and hardware. Green Chemistry naturally provides our nation with a means to **sequester** harmful **CO₂** gas from the atmosphere while fostering **U.S. Oil Independence**.

Bio Penetrating Lubricants combine patented **Stabilized™² Soy High Oleic Base Stocks (HOBS)**¹ with patented **Bio Corrosion Inhibitor (BCI™)** chemistry to produce a penetrating lubricant with:

- Naturally superior **Lubricity**
- Outstanding **Penetrating** quality
- Very high **Load Carrying Capacity**
- Exceptional **Anti-Wear Extreme Pressure** performance
- Superb **Anti-Rust** and **Anti-Corrosion** protection
- Superior long lasting **Anti-Oxidation** properties



U.S. Government Tested & Approved To Replace WD40!

Bio Penetrating Lubricants utilize patented **Biobased Lubricants** technology developed in collaboration with U.S. Commodity Groups, National Laboratories, and Federal Agencies including **United Soybean Council, National Corn Growers Association, U.S. Dept. of Agriculture, Dept. of Defense, Dept. of Energy, and Dept. of Interior.**

United Bio Lube's Bio Penetrating Lubricants have undergone rigorous testing by federal agencies, independent labs, and industry. Bio Penetrating Lubricants have been approved by and are currently recommended for use within the **U.S. Coast Guard, National Park Service, U.S. Fish & Wildlife Service,** and **National Oceanic & Atmospheric Administration's (NOAA).**

Bio Penetrating Lubricants are rated worker-friendly by the **Occupational Safety & Health Administration (OSHA)** and **100% Ultimate Biodegradable³** (ASTM D-5864 PW1) by **U.S. Dept. of Agriculture (USDA).**

United Bio Lube's BPL™ - Bio Penetrating Lubricant w/ Bio Corrosion Inhibitors is proudly registered in the **USDA's BioPreferredSM Catalog** of biobased products designated for preferred purchasing by U.S. Federal Agencies.

United Bio Lube's Bio Penetrating Lubricants are reliable, affordable, and available in all quantities today.

To purchase, simply call **(650) 213 - 9979.** Or, sign-up online to open your **Green Purchasing Account** today!

Advanced Equipment Protection

Outperforms WD40 and other Petroleum Penetrant-Lubricants!

Bio Penetrating Lubricants are specially formulated to **OUTPERFORM** WD40 and all other petroleum based penetrating lubricants. The natural oily film of these super high Viscosity Index products have proven in laboratory and field tests to outperform WD40 and other leading petroleum based penetrating lubricants in terms of **Lubricity, Load Carrying Capacity, Water Displacement, Rust Prevention, Salt Water Corrosion Protection, Material Compatibility, and Oxidation Stability.**

United Bio Lube's Bio Penetrating Lubricants are preferred alternatives to traditional petroleum based products when considering that Bio Penetrating Lubricants both outperform and are safe to manufacture, transport, use, and dispose of.

Bio Penetrating Lubricants make obsolete the use of all major brands of hazardous petroleum penetrating lubricants, specifically **WD40, 3in1, TriFlow, Liquid Wrench, PowerLube, LPS#2, PB-Blaster, Mouse Milk, Unilease, GT85, Kroil, CRC 5-56,** and all other harmful, lesser performing brands when one considers performance, worker health & safety, environmental impact, and a proper **Life Cycle Analysis** (i.e. **BEES - Life Cycle Cost Analysis Tools**).

BEES - Building for Environmental & Economic Sustainability

A Total Life-Cycle Cost Analysis of the environmental impact from United Bio Lube's Bio Penetrating Lubricants has been assessed using the **BEES** system.

BEES is a true cost assessment when including impacts to eco systems from manufacturing, usage, and disposal. **BEES** measures the **Environmental Performance** of chemical products by using the Life-Cycle Assessment approach specified in the **ISO 14040** series of standards. All stages in the life of a product are analyzed:

- Installation
- Manufacturing
- Raw Material Acquisition
- Recycling
- Transportation
- Usage
- Waste Management

Economic Performance is measured using the **ASTM Standard Life-Cycle Cost Method**, which covers the costs of:

- Initial Investment
- Replacement
- Operation
- Maintenance & Repair
- Disposal

Environmental and Economic performance scores are combined into an overall performance measure using the **ASTM Standard For Multi-Attribute Decision Analysis**.

BPL - Drop In Replacement For Petroleum Penetrating Lubricants

United Bio Lube's Bio Penetrating Lubricants are engineered to perform as premium, high quality **Drop In Replacements** for harmful WD40, 3in1, TriFlow, Liquid Wrench, PowerLube, LPS#2, PB-Blaster, Mouse Milk, Unilease, GT85, Kroil, CRC 5-56 and all other petroleum-based penetrating lubricants!

Bio Penetrating Lubricants are **fully compatible** with all types of multi-metals and alloys, plastics, seals, elastomers, coatings, and finishes.

Bio Penetrating Lubricants compete in **high performance** with synthetic penetrating lubricants, yet, cost less. Unlike synthetic and mineral oil formulas, these **biobased** penetrating lubricants are made from renewable and sustainable agricultural plant resources **grown in America**.

In addition to being a smart and **cost effective** purchase, Bio Penetrating Lubricants add real value to maintenance operations through better machine performance, efficiency, safety, and reliability.

Benefits of this new lubricant system include:

- Super High **Viscosity Index**
- Exceptionally high **Load Carrying Capacity**
- Reliable **Water Displacement**
- Long lasting **Salt Water Rust Prevention**
- Very low **Total Acid Number**
- Superior **Oxidation Stability**
- Very low **Pour Point** (-30 °C, -22 °F)
- Improved **Cold Temperature Fluidity**
- Superb **Heat Stability**
- Very high **Flash Point** (146 °C, 295 °F)



BPL - Multi-Purpose Indoor/Outdoor Applications

United Bio Lube's Bio Penetrating Lubricants with patented **Bio Corrosion Inhibitors (BCI™)** chemistry are engineered to **penetrate** deep into close tolerance areas, **displace water**, and **remove deposits**, then **lubricate** all surfaces while preventing **rust** and **corrosion** from re-occurring.

Multi-Purpose, multi-functional Bio Penetrating Lubricants are recommended for the **maintenance** and **repair** of all types of indoor-outdoor equipment, tools, and hardware commonly used in **Military, Transportation, Agriculture, Forestry, Construction, and Marine** applications.

Bio Penetrating Lubricants are designed for industrial or light duty use in **Facilities, Fleets, and Machine Shops** where **equipment, tools, and hardware** are subjected to high loads, wet humid climates, and varying temperatures.

Bio Penetrating Lubricants provide superior **Lubricity** and **Anti-Wear** protection for all types of professional **Tools, Wheels, Cables, Hinges, Locks**, or any **rotating** or **sliding** objects, including:

- | | | |
|--------------------|------------------|----------------------|
| ■ Air Conditioners | ■ Exhaust Fans | ■ Outboard Motors |
| ■ Air Tools | ■ Firearms | ■ Pliers |
| ■ All Levers | ■ File Cabinets | ■ Pruning Shears |
| ■ Antennas | ■ Fishing Reels | ■ Pulleys |
| ■ Antiques | ■ Fuse Boxes | ■ Rail Conveyors |
| ■ Armatures | ■ Folding Chairs | ■ Rails |
| ■ Axles | ■ Folding Tables | ■ Rollers and Tracks |

- Automobiles
- Ball & Socket Joints
- Bearings
- Bicycle Cables
- Bicycle Gears
- Blades
- Boat Trailers
- Boat Hardware
- Buckles
- Cabinet Hardware
- Cable Housings
- Cables
- Car Battery Terminals
- Castors
- Chain Saw Bolts
- Chains
- Chutes
- Clamps
- Come Alongs
- Computer Fans
- Cutting Tools
- Dies
- Door Knobs
- Door Knockers
- Drills
- Electric Hedge Clippers
- Electric Switches
- Engine Blocks
- Garage Doors
- Gate Hardware
- Golf Carts
- Grinders
- Guides
- Hand Clippers
- Hand Trucks
- Hedge Shears
- Hinges
- Hose Rollers
- Ironing Boards
- Irrigation Valves
- Jacks
- Kitchen Sink Hardware
- Knobs
- Ladders
- Lawn Edgers
- Lawn Mower Blades
- Lawn Mower Cables
- Lawn Mower Wheels
- Light Bulb Sockets
- Linkages
- Locks
- Loppers
- Machines
- Mail Boxes
- Metal Shears
- Nuts & Bolts
- Room Fans
- Rototillers
- Saws
- Scissors
- Sewing
- Shafts
- Skateboards
- Skates
- Sprinkler Heads
- Strollers
- Switches
- Table Vises
- Fish Tackle Boxes
- Tool Boxes
- Trailer Connectors
- Trailer Lights
- Valves
- Vise Grips
- Weathervanes
- Weed Wacker Shafts
- Wheels
- Wheel Barrows
- Wheel Bearings
- Winches
- Windows
- Window Cranks
- Window Latches
- Wrenches

Return On Capital Investment

BPL Yields Real Operational Cost Savings

Today, pressure is on businesses to achieve greater energy efficiency by reducing both emissions and waste.

Bio Penetrating Lubricants do not contain harmful Volatile Organic Compounds (VOCs). Due to this formula's extremely low volatility, Bio Penetrating Lubricants do not emit harmful vapors to contaminate workplaces or cause fires. Using Bio Penetrating Lubricants maximizes capital investments in equipment, tools, and hardware by prolonging a product's useful service life.

Bio Penetrating Lubricants offer Facility Operators and Fleet Services a cost-effective way to improve plant production, ensure workplace safety, and control operating expenses.

BPL Protects Capital Investments In Equipment, Tools, & Hardware

Bio Penetrating Lubricants are engineered to maintain separation between mating surfaces. A very strong **Thin Fluid Film** lubricant with **Anti-Wear** additives protects metal surfaces by preventing metal-to-metal contact in **Extreme Pressure** conditions. This long lasting lubricating Thin Fluid Film cushion has a low tendency to evaporate and a very high resistance to chemical breakdown, or Oxidation.

Engineered to preserve yesterday's antiques and deliver unsurpassed multi-functional performance in today's equipment, tools, and hardware, Bio Penetrating Lubricants are designed to deliver a measurable **Return On Investment** by:

1. Reducing machine Wear and Failure by:

- Reducing Friction & Fatigue
- Reducing Pitting & Micro-pitting
- Reducing Scratching & Scoring
- Reducing Galling & Welding
- Inhibiting Corrosion & Rust
- Improving Heat Transfer during drilling
- Removing foreign and wear particles from critical contact areas

2. Reducing machine Maintenance cycles

3. Reducing overall system Down-time



Collectively, these system wide performance improvements can lead to a positive **Return On Investment** in capital equipment as measured by:

- Longevity of Components and Parts
- Improved machine Operability
- Extended machine Service Life
- Improvements in plant Safety

BPL Delivers Return On Investment

Cost Justification For Selecting Bio Penetrating Lubricants

In most facilities or shops, the relative impact of lubricant purchasing costs on net profitability over the course of a year is relatively minor.

Return On Investment (ROI) is a far better measure of cost justification. Bio Penetrating Lubricants made from **Stabilized™ HOBS** present a cost reduction opportunity for businesses, delivering a ROI many times over the purchasing cost differential incurred from switching to these high performance, multi-functional, multi-purpose light industrial oils.

The typical Return On Investment from gained operational efficiencies is much greater than the total cost of purchasing Bio Penetrating Lubricants over the course of a year.

No Hidden Costs

There are no extra costs incurred from switching over to Bio Penetrating Lubricants as these light industrial oils are fully compatible with existing system oils, components, filters, seals, and coatings.

Contamination of Workers

Workers not using Bio Penetrating Lubricants are operating under unnecessary risk from potential contamination. Exposure from petroleum spray lubricants is common; often unavoidable and toxic. Many of the petroleum spray products warn against nerve or brain damage if inhaled.

Using Bio Penetrating Lubricants reduces the potential negative health results of incidental contact with workers or the environment due to naturally occurring events or human error.

Using Bio Penetrating Lubricants add high performance and real workplace value to production and maintenance operations:

Less Wear

Maximizes the useful Service Life of equipment, tools, and hardware.

Super high **Viscosity Index, Fluid Film Strength, Mechanical Shear Stability, Load Carrying Capacity,** and **Anti-Wear - Extreme Pressure** properties protect against wear and fatigue to extend the life of bearings and other components.

Equipment, tools, and hardware under physical stress will benefit from improved oil stability and a higher resistance to friction. Collectively, these performance enhancements lead to component longevity and extended machine operability.

Reductions in wear leads to reductions in annual replacement costs of machine parts and components.

Less Penetrant

Long lasting oil service life. A break down in machinery can lead to financial losses. Mechanical wear due to surface degradation including mechanical wear and fatigue is common. Studies show a high percentage of mechanical wear is due to lubricant degradation.

Bio Penetrating Lubricants are durable and will not break down under cold temperature, heat, moisture, or heavy loads.

Bio Penetrating Lubricants are made with patented **Stabilized™ Soy High Oleic Base Stocks (HOBS)** chemistry to prevent oxidation, oil breakdown, or evaporation. Bio Penetrating Lubricants thereby have a long lasting oil service life and need to be applied less frequently.

Extended penetrant service life means extended service intervals.

Less Labor

- Reduces annual re-lubrication labor costs.
- Reduces annual labor to replace components.
- Reduces number of unplanned work orders.
- Reduces maintenance expenditures.

Less Operational Costs

- Maximizes service life of capital equipment, tools, and hardware.
- Decreases maintenance expenditures.
- Eliminates hazardous waste handling, storage, and disposal fees.
- Consolidates numerous petroleum products typically used in the shop with just one **Killer Green Application - BPL!**

Less Harmful

United Bio Lube's Bio Penetrating Lubricants provide the highest level of protection against toxic contamination. Such safety standards are inherently unattainable in pure synthetic lubricants and mineral oils.

The HOBS purity factor provides an additional level of insurance against worker contamination and fire.

Less Waste

No hazardous waste is generated at any point throughout the manufacturing, usage, or disposal of United Bio Lube's Bio Penetrating Lubricants; even used empty cans are safe, non-flammable, non-hazardous materials.



Made From Renewable Resources

Made From Stabilized™ High Oleic Base Stocks (HOBS)

United Bio Lube's Penetrating Lubricants are formulated from **U.S.D.A.** sponsored **High Oleic Base Stocks (HOBS)**² and processed with **Stabilized™**¹ chemistry for:

- High Performance - High Quality
- Multi-Grade Performance
- Penetrant Longevity
- Anti-Oxidation, Anti-Corrosion, Anti-Rust
- Cold Flow Pumpability
- Lower Deposits
- 100% Ultimate Biodegradation
- Extremely Low Volatility
- Fire Safety



HOBS are specialized commodity vegetable oil crops, i.e. **Soy, Sunflower, Canola, and Corn**. Once stabilized against oxidation, these basestocks yield the safest, most efficient bio-lubricants available in today's marketplace.

Note: **United Bio Lube's Green Policy** position supports the **Hybrid Breeding** method for naturally growing Mid and High Oleic Base Stock commodity oil crops.

HOBS Promotes U.S. Oil Independence

United Bio Lube's Bio Penetrating Lubricants were developed in collaboration with **Dept. of Agriculture (USDA), Dept. of Interior (DOI), Dept. of Energy (DOE), and Dept. of Defense (DOD)** through bipartisan initiatives, lead by senators **Thomas Harkin (D, Iowa)** and **Richard Lugar (R, Indiana)**, to reduce America's dependency on fossil fuels and foreign oil while promoting rural economic development.



Pictured Left-Right:

U.S. Deputy Secretary of Defense - Gordon England
U.S. Secretary of Agriculture - Mike Johanns
U.S. Senator - Richard Lugar (R, Indiana)
U.S. Representative - Marcy Kaptur (D, Ohio)
U.S. Senator - Thomas Harkin (D, Iowa)

The **High Oleic Base Stocks (HOBS)** program is a cornerstone technology America is deploying to gain Self Reliance, Economic Security, Workplace Safety, and Environmental Protection for the next 100 years.

HOBS Promotes U.S. Green Chemistry Policy

Renewable agricultural **High Oleic Base Stocks (HOBS)** represent a growing **Green Chemistry** market segment that is directly addressing:

- U.S. dependency on fossil fuels and foreign oil.
- Solutions for sequestering CO₂ and other harmful green house gases.
- The elimination of hazardous waste streams from toxic lubricants, solvents, and fuels.
- The fostering of new renewable, Green Chemistry based marketplaces.
- The preservation of U.S. manufacturing.
- The creation of new employment opportunities.

Each of these **National Security Interests** are inclusive, and in alignment with, the Green alternative energy policies advocated by **ApolloAlliance.org**, a **Ten-Point Initiative for Clean Energy and Good Jobs**. ApolloAlliance.org is an strategic alliance of government (U.S. Senators, Congressman, Governors, Mayors) and industry leaders (Labor Unions, Corporate Executives) organized to transition the U.S economy away from a Fossil Fuel dependent **Hydrocarbon-based Economy** towards a more sustainable, renewable **Carbohydrate-based U.S. Bio Economy**.

Green Chemistry Life Cycle

Broad use of vegetable oil based lubricants creates a continuous, long term economically sustainable Green Chemistry cycle within the greater U.S. Biobased Economy whereby U.S. industries lubricate and protect machinery and equipment with **Stabilized™ High Oleic Base Stocks (HOBS)** grown on U.S. farms.

Most notably, no CO₂ is produced in the manufacturing of Bio Penetrating Lubricants. As High Oleic Base Stock (HOBS) vegetable oils are grown and scaled to U.S. commodity crop volumes, harmful Carbon Dioxide (CO₂) gas is simultaneously **sequestered**, or 'pulled', from our atmosphere.

HOBS Sequesters CO₂ From The Atmosphere

As **Soy, Sunflower, Canola**, and **Corn** HOBS commodity crops are grown, harmful CO₂ is **sequester**, or pulled out of the atmosphere. By scaling out HOBS development across the country, the U.S. can begin to reverse its contributions to the dangerous trend of global warming.

HOBS Provides Unique Cradle-to-Grave Opportunities

Still non-hazardous after usage, some biobased products such as Bio Hydraulic Fluids can be **Recycled** or **Re-refined** into additional biobased lubricant products, i.e. **Bio Chain & Cable Oils, Bio EP Greases, Bio Bar & Chain Oils**. In turn, these re-refined biobased lubricant products will completely biodegrade as they are expelled into the environment upon usage.

Re-refining biobased fluids and oils into biodegradable Bio Penetrating Lubricants in the Total Loss Lubricant category represents an industry breakthrough in Cradle-to-Grave low environmental impact product lines. Such **Green Chemistry** solutions represent the future for controlling waste streams from lubricants.



HOBS Protects Against Soil Contamination

The **non-hazardous** naturally occurring esters found in HOBS are rated **Ultimate Biodegradation**³ and are renewable, recyclable, and sustainable national resources.

United Bio Lube's Bio Penetrating Lubricants contain **No Heavy Metals** and **No Volatile Organic Compounds (VOCs)**.

HOBS are Safe, Non-Hazardous, and Worker-Friendly

Bio Penetrating Lubricants have an additional benefit of being non-toxic to humans.

Meeting and exceeding all OEM specifications, Bio Penetrating Lubricants are preferred over petroleum products when:

- High performance and quality is required
- There is incidental worker contact with the penetrant
- Direct exposure to the environment is likely
- Economic sustainability is a prime Green Policy objective.

Government Regulatory Compliance

2002 Farm Bill Act Mandates All Federal Agencies Purchase Biobased Products

Currently, the U.S. government **mandates** stewardship of our environment explicitly in the **2002 Farm Bill Act**.

Bio Penetrating Lubricants enable governments and corporations to comply with **White House Executive Order 13101, 'Greening of the Government Through Waste Prevention, Recycling, and Federal Acquisition'**, issued in 1998 by **President William J. Clinton** and signed into federal law by **President George W. Bush** via the **2002 Farm Bill Act**.



The **2002 Farm Bill Act** **mandates** all **U.S. Federal Government Agencies** purchase environmentally safe, biobased, vegetable oil lubricants. The new law includes a **Federal Biobased Products Preferred Procurement Program (FB4P)** which obliges all federal agencies to purchase biobased products "to the maximum extent practicable."

As of 2008, FB4P is now referred to as the **USDA's BioPreferred Program** where an online catalog of Biobased Products is maintained. All of United Bio Lube's 160+ products are listed in the catalog, or ready for listing when new categories are created.

Products covered by the procurement program include **Lubricants, Solvents, Fuel Conditioners, Inks, Paints and Coatings, Plastics, Adhesives, Cleaners**, and more.

The term **Biobased Product** is spelled out in **Section 9002** of the **Farm Security & Rural Investment Act of 2002**, which says,

"the term 'Biobased Product' means a product determined by the Secretary to be a commercial or industrial product (other than food or feed) that is composed, in whole or in significant part, of biological products or renewable domestic agricultural materials (including plant, animal, and marine materials) or forestry materials."

TITLE IX. Energy is where the procurement preference for Biobased Products is mandated.

Enables Compliance with Environmental Policies and Laws

Today, U.S. leaders are recognizing their leadership role in jump starting the **U.S. Biobased Economy** in order to unlock the vast world-wide economic and social opportunities awaiting this century.

Using Bio Penetrating Lubricant enables compliance with the following **White House Executive Orders, Federal Mandates**, and **U.S. Law**:



[White House Executive Order 13101 - Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition](#)

- ✓ [Executive Order 13134 - Developing and Promoting Biobased Products and Bio Energy](#)
- ✓ [Federal Biobased Products Preferred Procurement Program \(FB4P\)](#)
- ✓ [Section 9002 of the Farm Security and Rural Investment Act of 2002 \(FSRIA\)](#)
- ✓ [Biomass Research and Development Act of 2000, TITLE III of the Agriculture Risk Protection Act of 2000](#)
- ✓ [ISO 14000 Environmental Management Standards](#)

Supports a Sustainable U.S. Biobased Economy

United Bio Lube's Bio Penetrating Lubricants are produced from renewable and sustainable agricultural commodity crops grown here in America. One day soon, the United States of America will proudly begin **Exporting** these oil producing crops to a World caught up in a **Peak Oil** crisis.

United Bio Lube's Bio Penetrating Lubricants represent a concerted bipartisan response to the numerous **Call To Action** statements recently espoused by our government and industry leaders, namely to:

1. Commercially develop a renewable domestic **U.S. Biobased Oil Supply, Distribution, & Reserve Infrastructure** on par with existing petroleum reserves.
2. Scale out development and ongoing deployment of **High Oleic Base Stock (HOBS)** oil crops as a key renewable national resource.
3. Scale out construction of **Biobased Lubricant Refineries** with outputs on par with existing petroleum refineries.
4. Produce safer, non-toxic, **Energy Conserving** industrial oils from applied **Green Chemistry** principles.
5. Directly lower **Global Warming** by providing our nation with a mechanism for **sequestering** harmful Carbon Dioxide (CO₂) from our atmosphere.
6. **Export** these Earth saving technologies to industrialized and developing nations of our World.

Urgently, America needs to secure the functioning of its industries in the event of an oil shortage. Broad use of HOBS based Bio Penetrating Lubricants throughout U.S. industries supports the immediate objectives of federal, state, and local governments whom collectively are striving to:

1. Move America forward towards **U.S. Oil Independence**.
2. Foster **Rural Economic Development** by supporting domestically grown renewables.
3. Reduce **Green House Gas Emissions** by supporting **Biobased Manufacturing**.
4. **Eliminate worker health impacts** caused by using hazardous petroleum based lubricants.
5. Promote, accelerate, and prosper from an emerging **U.S. Biobased Economy**.

Summary of Key Benefits

United Bio Lube's Quadruple Bottom Line

1. High Performance

- ✔ **Anti-Wear Extreme Pressure (EP)** additives prevent metal surfaces from touching.
- ✔ Patented **Stabilized™** chemistry prevents oxidation of the soy vegetable oil from occurring.
- ✔ Super High **Viscosity Index = 211** (ASTM D-2270) provides superior lubricity.
- ✔ **Bio Corrosion Inhibitors (BCI™)** prevent rusting, corrosion, and decay of metal surfaces.
Meets ASTM D-665 Salt Water Rust Prevention Test.
Meets ASTM D-130 Copper Corrosion Test.
- ✔ **Excellent Hydrolytic Stability**
Rapidly **Displaces Water**.
Passes ASTM D-1401 Demulsification Test.
BCI™'s very strong **Thin Fluid Film** protects metal integrity.
- ✔ BPL w/**Tackifiers** ensures proper adhesion to components under all service conditions.
- ✔ BPL w/**Moly** ensures proper friction to components under heavy-duty load conditions.
- ✔ **Chemically compatible** with all types of seals and coatings.
Non-corrosive. Will not deteriorate Yellow metals.
No acidic residues to bind moving parts.
No gum or varnish deposits.
- ✔ Long lasting service life.
- ✔ **High Temperature Operation**
High resistance to fire. The extremely low volatility of HOBS increases this product's flash point and fire safety features.
High Flash Points prevent smoking and ignition.
Meets ASTM D-92 **Flash Point = 146 °C, 295 °F.**
- ✔ **Low Temperature Operation**
Advanced **Cold Flow** Technology
Meets ASTM D-97 **Pour Point @ -30 °C, -22 °F.**
- ✔ Advanced **Soy Vegetable Oil** formula.



2. Health & Occupational Safety

- ✔ **High Oleic Base Stocks (HOBS)** are the purest basestocks in the marketplace providing the highest level of hygienic protection against chemical contamination; such safety standards are inherently unattainable in pure synthetic lubricants and mineral oils.
- ✔ Use of **Bio Penetrating Lubricants** compliments **Hazard Analysis & Critical Control Point (HACCP)** systems.
- ✔ Bio Penetrating Lubricants do not contain any chemical listed as a carcinogen or potential carcinogen by **OSHA, IARC Monographs** or **National Toxicology Program**.
- ✔ Bio Penetrating Lubricants have no known hazards. This product is considered **non-hazardous** when handled properly and used for intended purpose.
- ✔ Bio Penetrating Lubricants's extremely **Low Volatility** of Stabilized™ HOBS increases this product's flash point and fire safety features.
- ✔ No off-gassing of harmful volatile vapors from **BPL™**.
- ✔ Bio Penetrating Lubricants contain no solvents or waxes.
- ✔ Bio Penetrating Lubricants are **Safe, Non-Hazardous**, and **OSHA** certified **worker friendly**.

BPL™ in an Aerosol Can

NFPA CODE: HEALTH: 1 FIRE: 2 REACTIVITY: 0

HMIS CODE: HEALTH: 1 FIRE: 2 REACTIVITY: 0

3. Environmental Compliance & Protection

- ✔ **United Bio Lube's Bio Penetrating Lubricants** are preferred over petroleum oils in applications where there is a direct danger of polluting the air, water, soil, or work environment through loss of the lubricant.
- ✔ Bio Penetrating Lubricants have the highest **USDA** rating of **Ultimate Biodegradable**.
- ✔ Bio Penetrating Lubricants are **Environmentally Responsible** lubricants formulated from **Renewable** agricultural plant resources.
- ✔ Bio Penetrating Lubricants contain **No Lead** or other **Heavy Metals: No Zinc, No Antimony, No Barium**.
- ✔ Bio Penetrating Lubricants contain **No Chlorine, or Phenols**.
- ✔ Bio Penetrating Lubricants are 100% **Biodegradable, Renewable, and Sustainable**.
- ✔ **Bio Penetrating Lubricants** eliminate the storage and disposal of hazardous waste.

4. Return On Investment - ROI

- ✔ **Bio Penetrating Lubricant (BPL™)** yields a return on capital investment through better machine performance, efficiency, reliability, and longevity.
- ✔ **BPL™** has a long lasting Service Life, far outlasting WD40 and other Penetrating Lubricants.
- ✔ **BPL™** improves equipment, tools, and hardware performance.
- ✔ **BPL™** enables compliance with new and upcoming environmental regulations.
- ✔ **BPL™** does not contaminate employee workplaces.
Bio Penetrating Lubricants do not off-gas.
- ✔ **BPL™** reduces hazardous materials handling and storage costs.
- ✔ **BPL™** helps companies and individuals play a role in securing our national energy needs.
- ✔ Using **BPL™** actively promotes a safer, renewable, and more sustainable **U.S. Bio Economy**.



¹ **High Oleic Base Stocks (HOBS)** are specialized Soy, Corn, Sunflower, and Canola vegetable oils containing high levels of **Oleic Acid**. HOBS are renewable lubricants engineered to replace petroleum basestocks. Economically sustainable, HOBS is America's solution to petroleum based oils. Moreover, HOBS supports **U.S. Farmers**, protects workers and their environment, and reduces dependency on foreign oil.

² **Stabilized™** is Renewable Lubricants, Inc's trademarked, proprietary, and patented **Anti-Oxidant, Anti-Wear, and Cold Flow Technology**. Stabilized™ chemistry enables HOBS to perform as a high performance formula in high and low temperature applications, reducing oil thickening and deposits.

³ **Ultimate Biodegradation** (Pw1) within 28 days in **ASTM D-5864 Aerobic Aquatic Biodegradation of Lubricants**.

For assistance, please call (650) 213 - 9979

