



Important Note About LP Tanks:

Always consult your propane dealer about purchasing the proper tank or ask them to check your existing tank to make sure it is clean and safe before you begin flaming. You MUST use a propane tank equipped with a Liquid Withdrawal Valve. Do NOT use a bottom withdrawal valve as any possible debris or scale in the tank may plug torches or solenoids down the line. We recommend a top-mounted, liquid withdrawal valve with a dip tube. Clean fuel and tank are critical for optimum performance of all flaming equipment.

Flame Engineering, Inc. – Leaders In Flame Technology

In the mid 1950's, Ralph C. Pivonka and his son Mike, designed a propane torch for burning weeds on their Kansas farm. As word spread about their torch, they found themselves building more and more to satisfy a growing local demand. They soon outgrew their family workshop and went into full production. Now, over 50 years and 11 patents later, family owned Flame Engineering and its popular Red Dragon Torch Line has expanded into national and international markets with over 100 products. With a great commitment to customer satisfaction and quality products, Flame Engineering will continue to lead into the 21st century.

Red Dragon Alfalfa Flamers Get Results



A Kansas alfalfa field being flamed just after first green-up.



Same field just prior to first cutting.



Close up of UNFLAMED alfalfa near field shown.



Close up of FLAMED alfalfa from field shown.

UNFLAMED



FLAMED

Alfalfa Field Flaming Testimonials

Find Out What Other Successful Growers Have Already Discovered.

"I had a bad weed problem on a year old field. Saw your ad in "Progressive Hay Grower" and purchased a unit. I am really impressed with the results as they were excellent. Alfalfa looks like a carpet."

Rodney Sequeira
Caldwell, Idaho

"The Red Dragon Alfalfa Flamer wiped out the mustard and really did a job on the grasses. It made a believer out of me."

Bill Lovitt
Ransom, Kansas

Contact us about our complete line of agricultural flamers and torches.

Red Dragon Row Crop Flamers



Red Dragon Row Crop Flamers offer producers many options for weed control while reducing or eliminating herbicide use. Flaming can be done both pre-emerge and post emerge and has been proven effective on a wide variety of crops including corn, milo, sorghum, soybeans, cotton, carrots, lettuce and more. Flame Engineering manufactures complete units and kits, available in 2, 4, 6 and 8 row configurations.

Red Dragon Vineyard/Orchard Flamers



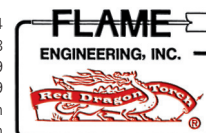
Red Dragon Vineyard & Orchard Flamers offer producers herbicide free weed control on the berm. Flamers are also a great tool for winter clean up to keep berms free of debris, thus destroying habitat for harmful insects. An alley attachment is also available for flaming between the berms. Flamers are available as complete trailer units or as kits.

**Contact your Red Dragon Distributor
or Flame Engineering for more information today.**

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TD-12 LPS Alfalfa Field Flamer



**The Natural Solution for Controlling
Weevils, Weeds & Grasses in Your Alfalfa!**



Manufactured by:

FLAME ENGINEERING, INC.

P.O. Box 577 • LaCrosse, Kansas 67548 • 800-255-2469 • www.FlameEngineering.com

Alfalfa Flaming is Safe, Effective, Economical and Environmentally Sound.

- ▶ **Safely Kill Weevils, Weeds & Grasses**
- ▶ **Reduce Residue & Make Way For a Healthier, Thicker Alfalfa Stand**
- ▶ **Great For Organic and Conventional Producers with USDA Approval for Organic Growers**
- ▶ **Burn Clean, Efficient and Affordable Propane**

1. Flaming kills weevil eggs, weevil larvae and other harmful insects.



2. Flaming also controls weeds and grasses. A thumb print indicates a good kill.



3. Flaming reduces old growth residues making way for new growth.



You can clearly see where the flame application ended on this test plot. The flamed plot on the left was thick and healthy while the other side was infested with wild mustard.



Benefits of Flaming:

Originally, the objective of flaming was to kill the alfalfa weevil. Since then, producers have learned that flaming also kills weeds, grasses and other harmful insects which can effect yields. By flaming alfalfa, producers see increased yields and fewer pests.

The most effective time to flame alfalfa weevils is during the dormant season or immediately after the first cutting. Dormancy takes place after the first freeze

▶ Increase Yields

and lasts through spring green up. By flaming early, you avoid damage to established growth of alfalfa and expose weevil larvae, grasses and weeds to temperatures reaching 2000°F. Just a split second of intense heat kills small weeds, grasses and weevils. Weeds die or are stunted, allowing the alfalfa to crowd out competitive weeds and grasses. If pests persist, a second flaming may be needed immediately following the first cutting.

How Flaming Works:

The Red Dragon Alfalfa Field Flamer utilizes a unique, patented liquid spray process developed by Flame Engineering. Liquid spray flaming creates combustion at the base of the plants by spraying propane at ground level. This split-second of intense heat is enough to kill the alfalfa weevil and weeds, without causing harm to the hearty alfalfa plant.

In addition to increased yields at a lower cost, LP-gas flaming offers other advantages. Spittlebugs, pea aphids, weeds, vines and dead plants are all reduced with flaming, making harvesting easier. Flaming is proven safe for alfalfa without the risk of contamination or run-off that has been associated with pesticide use.

Atmospheric temperatures control speed of travel and fuel consumption. At 30°F, travel speeds will be 3 to 5 m.p.h. At 90° F, travel speeds may be increased to 6 to 8 m.p.h. Wet ground decreases travel speed as does heavy foliage. High temperatures increase flaming efficiency.

Flaming Is Economical:

LP-gas consumption varies depending on conditions, including outside temperature, travel speeds and thickness of foliage. You can expect to use between 20 and 30 gallons of propane per acre.



Flaming was a popular practice before herbicides and pesticides came along.



The pilot torches are initially lit with a spark lighter. Full flame can then be activated by either a manual pull valve or electronic solenoid controls.



The continuous pilot torches maintain combustion along the spray bar.



Designed to easily skid behind tank cart.

Flames a 12' swath.

Red Dragon TD-12 LPS

Shipping Weight: 153.0 lbs.
Ships UPS or Truck in 3 Packages.

TD-12 LPS Ships With All Parts Shown.

- Complete Control Head Assembly with either electronic solenoid valve or manual pull valve—please specify.
- Cab Control Box with master shut-off switch (solenoid models only).
 - (2) LT 3-12 T Liquid Pilot Torches.
- 25' Supply Hose— you supply the tank connection.
- All necessary hoses and fittings.

Red Dragon Alfalfa Flamers are Safe & Easy To Operate With Complete Control From The Driver's Seat:

TD-12 LPS Alfalfa Flamers are designed to skid behind the tank cart (not included) and come with either electronic solenoid or pull valve, allowing the operator to control full flame from the driver's seat. Each unit flames a 12' swath.



Control head with manual pull valve.



Control head with electronic solenoid valve & control box.



Some farmers hook several units together to cover more area.



Flaming is a great way to help insure your farm will be safe and productive for future generations.

Here Are A Few More Great Reasons To Flame:

- The EPA is considering new rules that penalize farmers that put chemical off into streams and rivers.
 - Weeds and insects can develop immunity to chemicals. They can't develop immunity to heat!
- It takes 20 to 30 years for some agricultural chemicals to dissipate from wells and streams.
- Even if you have chemicals custom applied, you and your family may still breathe the chemicals.