

# CGR 458

- Black Powder Substitute Confusion
- Electronic Triggers (smart rifles)
- Caliber & Cartridge Length

# Black Powder Substitute vs. Smokeless Powder

- NAC 503.142(1) Prior to 2014:
- During a type of hunt that is restricted to muzzle-loading firearms, a person may hunt a big game mammal only... The use of smokeless powder is prohibited. Only black powder or a black powder substitute such as Pyrodex or Triple 7 may be used...



Brian Sandoval  
Governor

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July 26, 2011

**Muzzle-loading only tag holders:**

The Department has recently received numerous questions regarding the use of Blackhorn 209 during the muzzle-loading only season. Per NAC 503.142 (1) only black-powder or a black-powder substitute such as Pyrodex or Triple 7 may be used as a propellant. The use of smokeless powder is prohibited.

Black-powder and black-powder substitutes are carbon based propellants. Smokeless powders are nitrocellulose based propellants. *Blackhorn 209 has nitrate ester (nitrocellulose) as a base propellant and is therefore a smokeless powder and prohibited during the muzzle-loading only season.*

Due to the volume of questions and uncertainty the Department is sending this letter to all muzzle-loading only tag holders for the 2011 season. If you have any questions please contact Captain Cameron Waithman at (775)-688-1547.

Congratulations on drawing a tag and we wish you a safe and successful hunt.

Sincerely,

A handwritten signature in blue ink that reads "Robert W. Buonamici".

Robert W. Buonamici  
Chief Game Warden0

RWB/cjw/jt

# Black Powder Substitute vs. Smokeless Powder

- ▣ Then in June 2014, the NBWC took action to strike the brand names from the regulation.
- ▣ NAC 503.142(1) During a type of hunt that is restricted to muzzle-loading firearms, a person may hunt a big game mammal only... The use of smokeless powder is prohibited. Only black powder or a black powder substitute ~~such as Pyrodex or Triple 7~~ may be used...

## ***Firearm powder basics:***

- **Black-powder/Black-powder substitute propellants = carbon + potassium nitrate + sulfur:**
  - Traditional black powders are carbon based propellants (example: charcoal).
  - “Black powder substitutes” like Triple 7 and Pyrodex are carbon based propellants.
  - Basically these propellants have a carbon-based fuel (charcoal or sugar) + potassium nitrate (oxidizer for oxygen transfer) + sulfur (stabilizing agent).
    - Carbon = fuel/reducing agent
    - Sulfur = stabilizer/catalyst/rate of combustion
    - Potassium nitrate (KNO<sub>3</sub>) = ionic salt of potassium ions (K) + nitrate ions (NO<sub>3</sub>) - a nitrogen atom surrounded by 3 oxygen atoms providing oxygen for reaction.
    - Approximately 10% sulfur – 15% carbon – 75% potassium nitrate.
  - Less efficient than smokeless powders (approximately 50% unburned).
  - These are all **lawful** propellants in Nevada during the muzzle-loading only season per NAC 503.142.
- **Smokeless powder propellants = nitro cellulose/nitrate ester + stabilizer:**
  - Nitrocellulose propellants are the “smokeless” powder propellants.
  - Provides own oxygen for reaction.
  - 2 types generally for firearms: Nitrocellulose (single based), nitroglycerin + nitrocellulose (double based). Third type “nitroguanidine” generally used in larger munitions (cannons).
  - Burn rate based on size of granules.
  - Smokeless powders are **prohibited** propellants in Nevada during the muzzle-loading only season per NAC 503.142.

## ***Blackhorn 209:***

- Blackhorn 209 is a nitrocellulose (nitrate ester) based propellant.
- Blackhorn 209 Manufacturer Safety Data Sheet (MSDS) shows that it is nitrocellulose (nitrate ester) based propellant with additional stabilizer, oxidizer and carbonaceous substance added.
  - Nitro/oil solvent required for cleaning rather than soap and water.
  - Burns clean like all smokeless powders with 25+ shots before barrel cleaning needed.
- ***Blackhorn 209 is a nitrocellulose based propellant and therefore a smokeless powder and unlawful for use during the “muzzle-loading only” season per NAC 503.142 (1).***

# Black Powder Substitute vs. Smokeless Powder

- NAC 503.142(1) During a type of hunt that is restricted to muzzle-loading firearms, a person may hunt a big game mammal only... ~~The use of smokeless powder is prohibited.~~ Only black powder or a black powder substitute ~~such as Pyrodex or Triple 7~~ may be used...

# Black Powder Substitute vs. Smokeless Powder

- NAC 503.142(1) During a type of hunt that is restricted to muzzle-loading firearms, a person may hunt a big game mammal only... ~~The use of smokeless powder is prohibited.~~ Only black powder or a black powder substitute ~~such as Pyrodex or Triple 7~~ may be used as a propellant, *except that smokeless powder may be used as a black powder substitute if the muzzle-loading rifle or muzzle-loading musket is specifically designed for its use.*

# Electronic Triggers/Smart Rifles

- A laser-controlled, computerized scope and rifle combination that adjusts itself to a precise aiming point. The shooter “paints” the target with a laser where he wants his bullet to impact and then holds the trigger down. When the crosshairs get close to the laser point, the rifle adjusts and fires itself. Tracking Point claims this self adjustment to be precise to within half an inch at 1000 yards.





# TRACKING POINT VIDEOS



CES 2015 TrackingPoint Mile Maker 1,800 Yard Range Rifle - YouTube.mp4

# TRACKING POINT VIDEOS



500 Yard No-Look Rifle Shot With Android Using TrackingPoint Shotview - YouTube.mp4

# Cartridge Length and Caliber



# Cartridge Length and Caliber



# Cartridge Length and Caliber



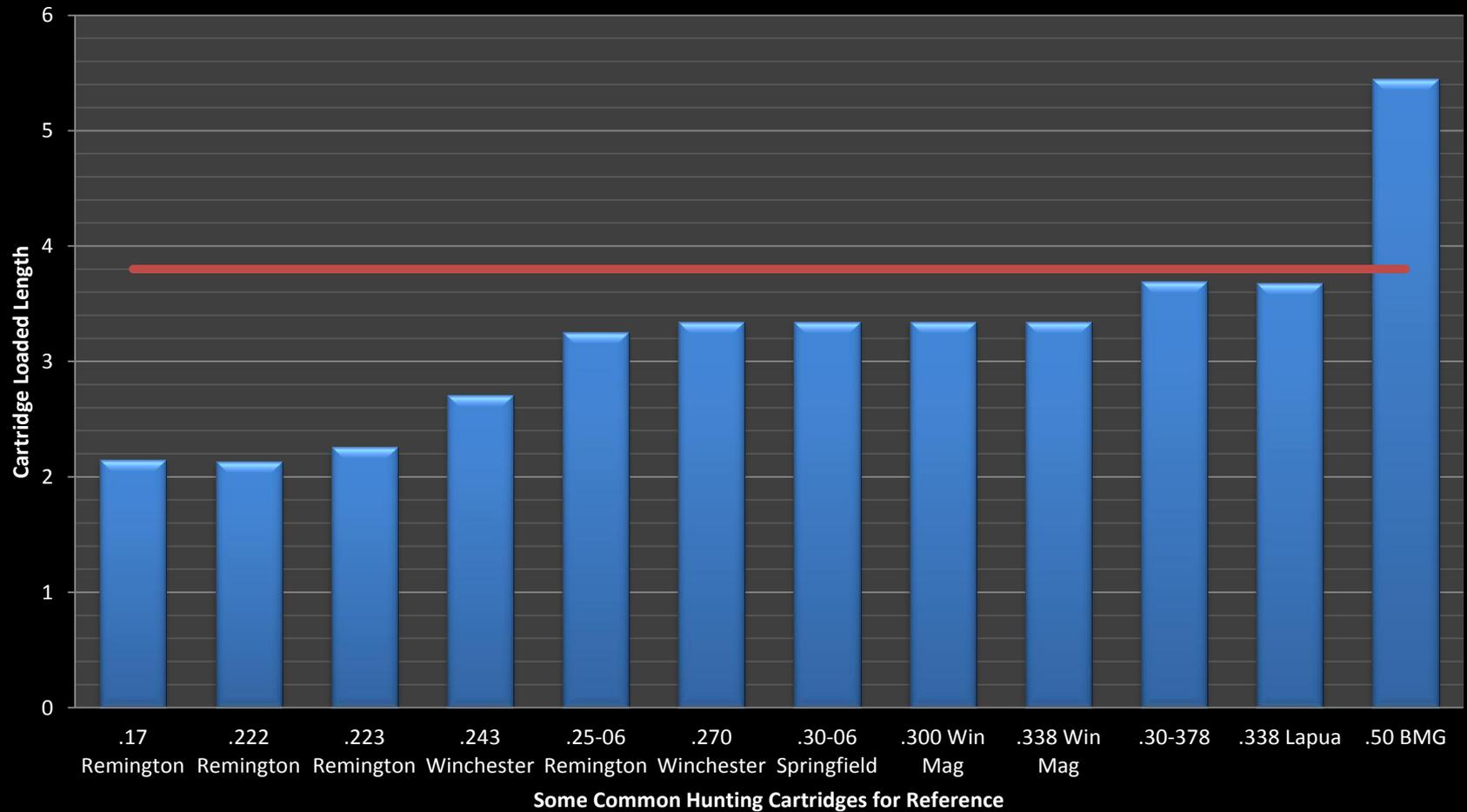
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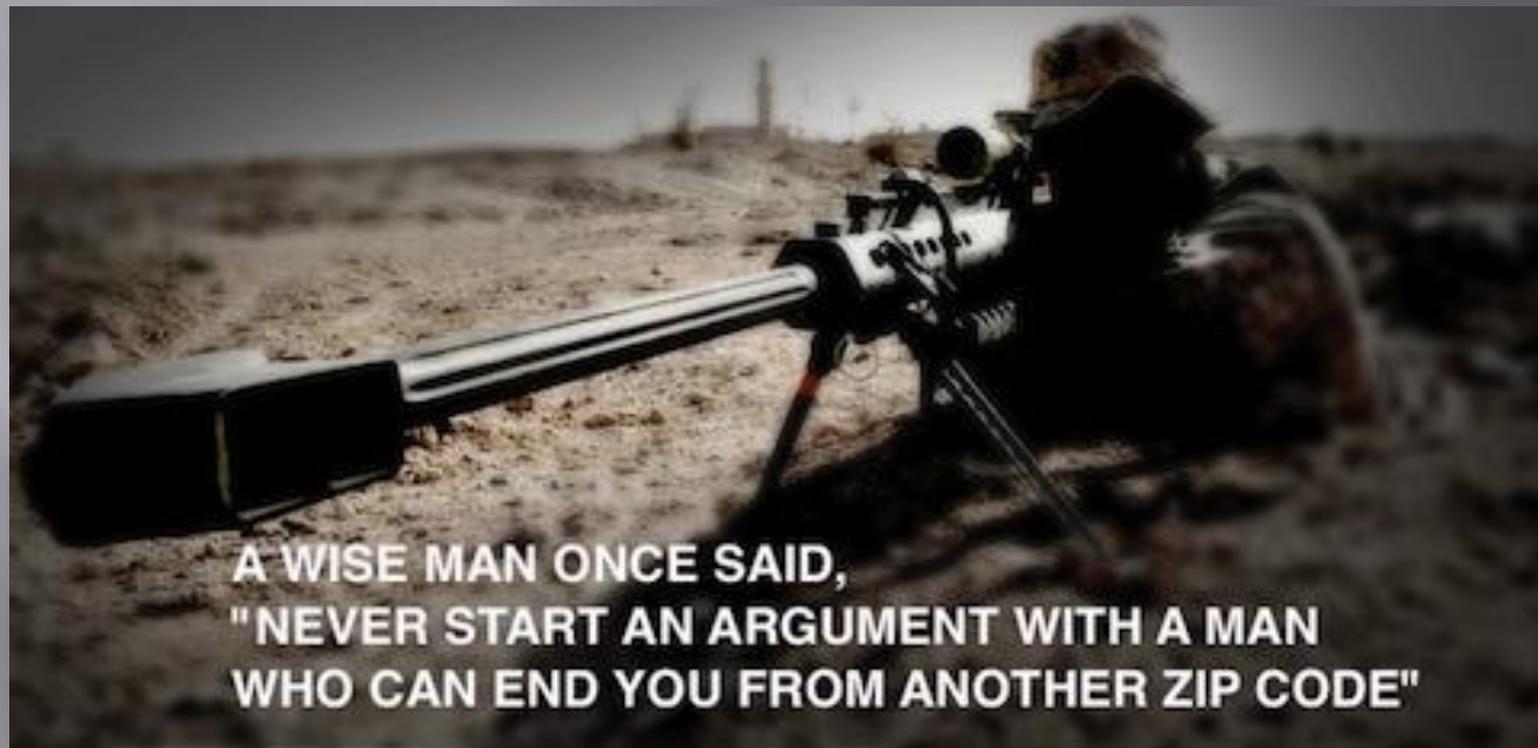
# Cartridge Length Chart



We had brought the Barrett that trip too...just in case! We had it set up on a burn area and could see for 1200-1400 yards...nothing stepped out in the kill zone.



# The End



**A WISE MAN ONCE SAID,  
"NEVER START AN ARGUMENT WITH A MAN  
WHO CAN END YOU FROM ANOTHER ZIP CODE"**