

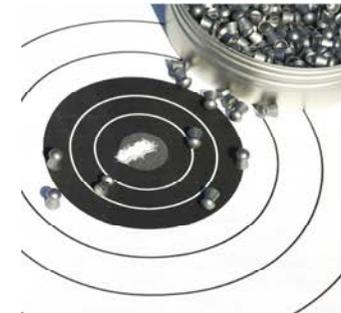
Full-bore- Where is that set of dies  
Junior Rifle- Practice, sleep, repeat

# The



# March 2019

# Buffalo Chips



**MANITOBA PROVINCIAL  
RIFLE ASSOCIATION**

Air Rifle      22 Long Rifle      High Power Rifle

Like always, if you have any questions, scores, tips or advice, comments, or have something that you would like to have published in the For Sale / Wanted section, email me at [mprachips@gmail.com](mailto:mprachips@gmail.com)



# What, finally a break in the weather.

So the weather has finally broke and dreams of nationals or laying in the grass at St Charles are flirting through your minds. Well, in reality, that is months away so keep practising or trimming brass.

M.P.R.A. memberships are due at the end of the month, please download the appropriate form and send it to Janet at the bottom of the form. Air rifle and 22 small-bore must apply to the Shooting Sports Federation of Canada so you have insurance. Family memberships required if more than one of you is shooting.

Long range require D.C.R.A. membership which can be applied on the Full Bore form.

<http://www.manitobarifle.ca/membership/>

Gerry Wiens was the only Manitoban to visit the Southwest Berger Nationals in Phoenix and the 400 plus spots went in 20 minutes when registration opened. What a great way to take a warmer winter vacation, good for you Gerry.

If you are tired watching the View in the morning or Ellen in the evening we do have an evening and Senior's league during the week. Interested, reach out to Gord Oliver at [gord.oliver@shaw.ca](mailto:gord.oliver@shaw.ca) for more info.

Interested in monthly air rifle matches contact Lisa at [lisa.deneka@gmail.com](mailto:lisa.deneka@gmail.com). For 22LR matches reach out to Paul at [pilot11@shaw.ca](mailto:pilot11@shaw.ca).

Monday 22LR at Gateway, contact Rob at [rwiebe1@mts.net](mailto:rwiebe1@mts.net)

You like shooting with the club, get active, be on a board or coach. Assistance is always appreciated and needed.

As we say when we're training marksmen of all types, "When you're shooting good, shoot lots." Too often, when people are training they think the opposite. When they're shooting well, they think, "I've got that part; I'll just move on to something else." In fact, what they need to do is repeat the practice over and over in order to reinforce the correct performance. "Correct repetition is the mother of skill." Once you have figured out how to do something correctly, you need to repeat it, over and over, until the body and mind know only one way to perform the task. Linda K. Miller and Keith Cunningham, Secrets of Mental Marksmanship

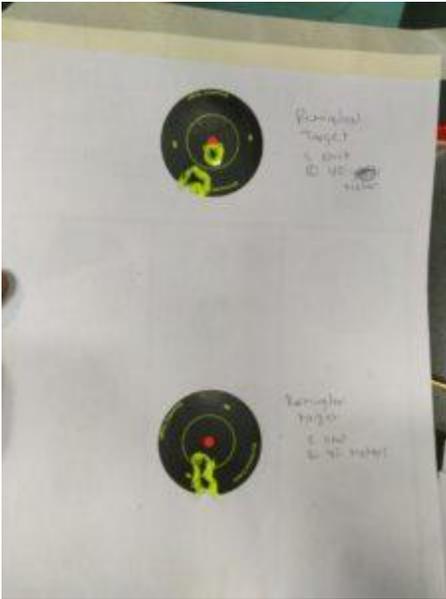
## Long Distance 22LR Bullet Selection

As some of you might be interested in saving money and practising with 22LR or just reaching out past 50m here is some info on ammo selection. Taken from the Rimfireprecision.ca website.



Ammo selection for your Production or Open division rifle can be a bit of a grind. Unlike its centrefire cousins, our rimfire rifles are subject to a life of being fed only factory ammo. Therefore we must sample a little bit of everything in order to find what works best in our rifles.

In the short time I have been shooting, I have shot over 10,000+ rounds of .22LR. I've tried everything from plinking grade to target grade all the way up to match grade. I have run it in semis and in bolt actions. Each one of my guns preferred a different brand/model.



5 Shot group with Remington Target @ 40 Meters

I was planning on writing this article solely based off shooting multiple 5 shot groups of various grades of ammo. In order to try and isolate as much user error as possible, I was going to then compare the groups of the same ammo to draw a conclusion. This is how most shooters determine which ammo to shoot.

### **There was a better way.**

I was at the local range and bumped into Andrew from the CRPS. He was at the range testing ammo for his .22LR trainers. What a coincidence. Everyone has caught the CRPS bug. He offered to let me use his Magnetospeed Chronograph to test my ammo. I gladly accepted. Then I humbly asked how to set it up, then how to make sense of it all.

### **Enter The Laboratory**

By using the chronograph, we are able to look at data that greatly reduces user error input. It is a more scientific approach. For this test I used 2 . ten shot groups for each ammo. This will give us enough of a sample to get a good snap shot of what the ammo is capable of.

We tested Remington Thunderbolt, Remington Target (by Eley), American Eagle 40gr SP, CCI Subsonic, and finally Eley Club.

Here is the summarized data from the 10 shot groups (not removing outlier readings).

**American Eagle #1**

**Average Velocity** 1221  
**SD** 31  
**ES** 107

**Remington Thunder Bolt #1**

**Average Velocity** 1185  
**SD** 28  
**ES** 99

**CCI Sub Sonic #1**

**Average Velocity** 1071  
**SD** 14  
**ES** 47

**Remington Target #1**

**Average Velocity** 1087  
**SD** 6  
**ES** 18

**Eley Club#1**

**Average Velocity** 1094  
**SD** 6  
**ES** 21

**American Eagle #2**

**Average Velocity**  
**SD**  
**ES**

**Remington Thunder Bolt #2**

**Average Velocity**  
**SD**  
**ES**

**CCI Sub Sonic #2**

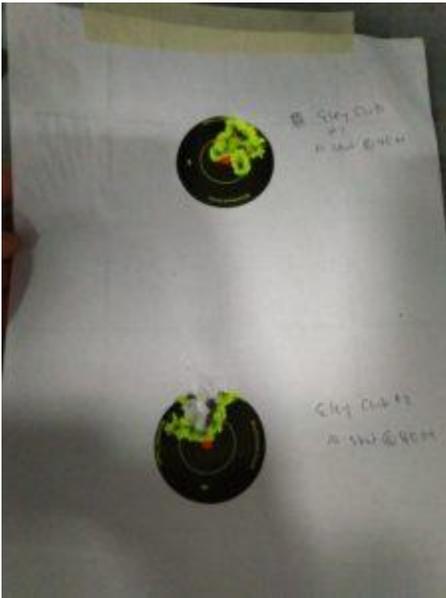
**Average Velocity**  
**SD**  
**ES**

**Remington Target #1**

**Average Velocity**  
**SD**  
**ES**

**Eley Club#2**

**Average Velocity**  
**SD**  
**ES**



10 Shot Group Eley Club @ 40 Meters. Groups affected slightly by magnetospeed changing barrel harmonics.

There are a few #s you want to pay attention to in order to understand the whole story of what is going on with your ammo. They are Average Velocity, Standard Deviation, and Extreme Spread.

#### *Average Velocity*

This is as the name suggests, the average velocity of the string of shots fired over the chronograph. This is a very helpful number to be used in the %velocity+field of your ballistic calculators.

#### *Standard Deviation (SD)*

This is a measure of how consistent your ammo is performing. The lower the standard deviation, the more consistent the velocity. If you do your part as a shooter, this should translate into tighter groups on paper.

#### *Extreme Spread (ES)*

This number shows the how far off in velocity the infamous %liers+are. If you extreme spread is low, the %liers+may not be noticeable on paper or may be minimal. A high spread could potential be the difference of a hit and a miss at long distance. You can use the ES reading in conjunction with the SD reading to validate how accurate your average velocity is.

Example; Lets look at the raw data from the American Eagle



Remington Target 10 shot group @ 40m. Grouping somewhat affected by magnetospeed changing barrel harmonics.

Shot 1 . 1242  
Shot 2 . 1257  
Shot 3 -1205  
Shot 4 -1240  
Shot 5 -1228  
Shot 6 -1150  
Shot 7 -1225  
Shot 8 -1194  
Shot 9 -1235  
Shot 10 -1243

If we look at the complete picture of what's going on, you can see that the high ES is bloating the standard deviation and the average velocity. The best thing to do, is look at the raw velocity readings from your shot group and take out the highest and lowest readings (the outliers) of 1150 and 1257. This should then paint a better picture of the true performance of your ammunition. The Average Velocity, ES, and SD readings will be more accurate.

*Revised Average Velocity: 1227*

*Revised Standard Deviation: 18*

*Revised Extreme Spread: 49*

By removing the outliers, you can see that American eagle appears to perform better than originally indicated.

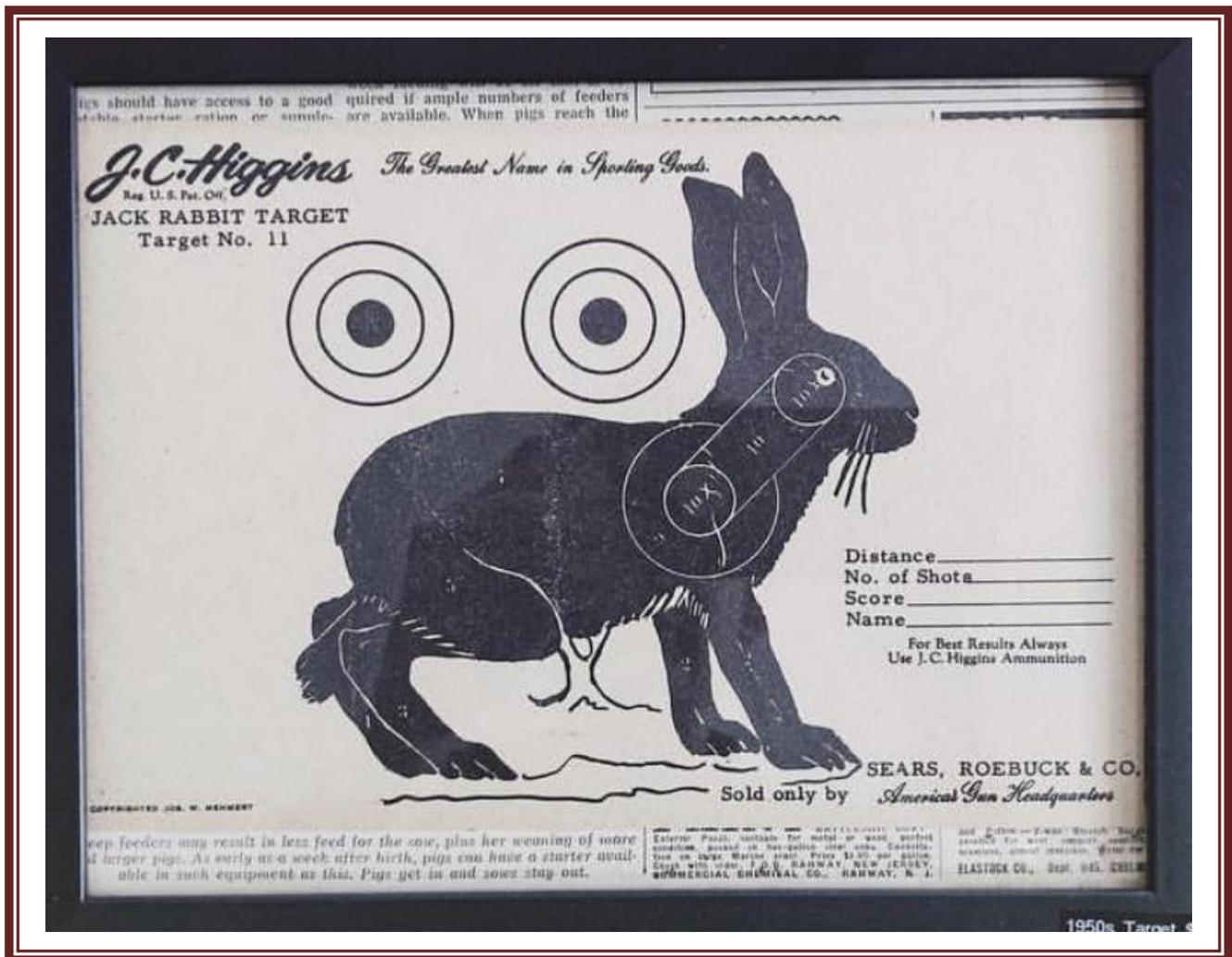
## **My Selection**

Based on the data I gathered at the range (both the chronograph data and grouping with magnetospeed removed) I have decided to use Eley Club. I bought 150 rds from the same batch so y results shouldn't vary too much from each box. It was also something I had access to locally and didn't break the bank.

With the data gathered I can put in my info into Strelak ballistic calculator app. This will help me with the elevation and windage adjustments needed for the CRPS course of fire.

In the end, if you want to know what ammo will give the best performance, maybe the best thing to do is try whatever is available to you. You don't have to have a chronograph, just a steady rock solid support for your rifle.

If you find this interesting check out Long Range Shooters of Utah on YouTube to see some interesting accuracy games they play using a 22LR.



## Winter Novice Program

We are coming to an end for another season and had an amazing group shoot with us the past twenty sessions. Hope they especially enjoyed the time at Gateway as I brought some of my own rifles so they could experience a semi-automatic or a piece of history like a No 8 or 7. Actually, they all loved the semi-automatics.



Low intensity should be used whenever you're learning something new. Break the skill into squads--short, simple activities that can be practiced over and over until they're habitual. The focus during low-intensity training is to be as smooth as possible and then to work on getting smoother. Doing it right is the most important thing; doing it on demand and doing it fast will come later. Low-intensity training has no stress in it. The student takes the time to learn the skill and imprint it on the subconscious. This training provides the strong foundation that the student will draw on when the intensity increases. Linda K. Miller and Keith Cunningham, *Secrets of Mental Marksmanship*

## ACTION

WITH A  
REMINGTON 22!

BETTER COUNT  
YOUR CHICKENS

SOMETHING'S AFTER MY CHICKENS—  
C'MON, RAY!

SQUAWK  
SQUAWK

I'LL LOAD UP WITH SOME  
REMINGTON  
"HI-SPEED" 22's

GEE! FOUR HENS  
KILLED. SOMETHING  
BIT THEIR NECKS

MIGHT BE A WEASEL.  
LET'S LOOK FOR IT!

THERE IT GOES.  
TOUGH SHOT!

LOOK AT IT  
TRAVEL!

BUT WATCH  
THIS SPEED!

SWELL SHOT, RAY! MY CHICKENS  
WILL BE SAFE NOW

THANK MY MODEL 514  
AND REMINGTON  
"HI-SPEED" 22's.  
THEY'RE TOPS!



REMINGTON  
"HI-SPEED" 22

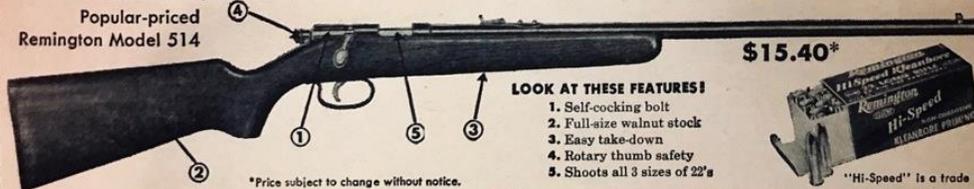
**IT'S FREE!**

**"HOW TO SHOOT"**

Colorful new cartoon booklet helps you become a good shot. Shows how to shoot safely, best shooting positions, how to set up a range, shooting games, etc. Packed with useful information. For your free copy write Advertising Division, Dept. BL-11, Remington Arms Company, Inc., Bridgeport 2, Conn.



Popular-priced Remington Model 514



**LOOK AT THESE FEATURES!**

1. Self-cocking bolt
2. Full-size walnut stock
3. Easy take-down
4. Rotary thumb safety
5. Shoots all 3 sizes of 22's

\*Price subject to change without notice.

**\$15.40\***






\*Hi-Speed\* is a trade mark of Remington Arms Company, Inc., Bridgeport 2, Conn.