An On the Mark Series by Gary Anderson, DCM

Team and Club Rifle Equipment

With the CMP being so actively involved in promoting youth rifle marksmanship among local school teams and clubs, we receive numerous requests for recommendations regarding what items of equipment are required to conduct youth rifle programs and how teams and clubs with limited resources should prioritize their acquisition of the equipment.

This article provides a comprehensive list of starter equipment needed for a junior rifle program. The equipment listed and prioritized in this article is equipment that should be acquired by a team or club that wants to provide starter equipment for new shooters who join their program. Junior shooters who want their own equipment can also use this list to guide their acquisition of personal equipment.

The equipment items are ranked in priority order.

- Priority 1: Basic equipment necessary to get a program started.
- Priority 2: Equipment that is definitely needed, but its acquisition can be deferred until new shooters on the team or club have gotten off to a good start.
- Priority 3: Optional items that are not necessary to teach basic rifle marksmanship to new shooters, but which will be needed if the team or club plans to participate in competitions.
- Priority 4: Specialty items that usually are acquired by individuals who become active competition shooters and who desire to have more advanced equipment.

SHOOTING EQUIPMENT SUPPLIERS

The following Shooting Equipment Suppliers stock equipment items discussed in this article. The firms listed here offer National Matches Commercial Row sales or have supported CMP-sanctioned events.

Brenzovich Firearms & Training Center

http://www.brenzovich.com/

Civilian Marksmanship Program

http://estore.odcmp.com/Store/catalog/catalog.aspx

Champions Choice

http://www.champchoice.com/

Champion Shooters Supply

http://championshooters.com/

Creedmoor Sports, Inc.

http://www.creedmoorsports.com/

Daisy Outdoor Products

Contact Special Marketing: djohnson@daisy.com

Neal Johnson's Gunsmithing, Inc.

http://nealjguns.com/

Pilkington Competition Equipment

http://www.pilkguns.com/

Introductory rifle training for juniors is done with sporter air rifles, precision air rifles, smallbore rifles and BB guns, depending upon team, club or individual goals, affiliations and facilities as well as the ages of participants. This means that the equipment they must acquire to teach basic rifle marksmanship and get started in competition depends upon what type of rifle shooting is done in a particular program. Specific equipment recommendations vary according to which of six developmental tracks is pursued by the club, team or individual junior. They are:

Sporter Only. Sporter air rifles are used for basic marksmanship instruction and competition.

Sporter-Precision. Sporter air rifles are used for basic marksmanship instruction; interested participants switch to precision air rifles for competition.

Sporter-Smallbore. Sporter air rifles are used for basic marksmanship instruction; interested participants switch to smallbore rifles for competition.

Precision. Precision club air rifles are used for basic marksmanship instruction; interested participants switch to higher grade precision air rifles for advanced competition.

Smallbore. Junior smallbore rifles are used to teach basic marksmanship skills; interested participants use these or more advanced smallbore target rifles to participate in competition.

BB Guns. BB guns are used to teach basic marksmanship skills and an introduction to competition; interested participants switch to other tracks to develop additional skills or participate in competition

The first list in this issue of *On the Mark* is a prioritized equipment list for programs or individuals that use sporter air rifles for instruction and competition. When considering the priority #1 list, it is also important to note that aside from the rifle, the other required equipment items can readily be acquired or fabricated without significant additional expense.



The Daisy M853 is still the most widely used sporter air rifle for junior marksmanship instruction and competition.

SPORTER TRACK— PRIORITY #1 EQUIPMENT—Mandatory equipment for starting basic marksmanship instruction.

Sporter Air Rifles. Cost: \$200-\$450 each. Sporter-class air rifles are ideal for use in rifle marksmanship instruction, but there are only a few air rifles available that offer the features needed for target practice. To be suitable for junior target shooting, sporter air rifles must have single shot loading, 9-ring or better accuracy (on ISSF 10m target), target sights adjustable for elevation and windage, an adjustable sling attachment on the fore-end and some means of stock length adjustment. The National Three-Position Air Rifle Council

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must recognize air rifles used in competition as legal sporter class air rifles.

Pneumatic Daisy M853/853MC/753 air rifles are excellent for basic instruction and are also successfully used by thousands of juniors in competitions. CO2 or compressed air rifles like the Daisy M888/887 or the Air Arms T200 air rifles cost more, but for a club or individual whose goals focus on competition, they may be a better choice, even for beginners. If gas or CA air rifles are selected, however, it is necessary to acquire the tank and adaptor needed for CO2 gas or compressed air. If the junior program is focused only on basic safety and rifle instruction, Daisy M953 and M880 air rifles are also usable and available at even lower cost.

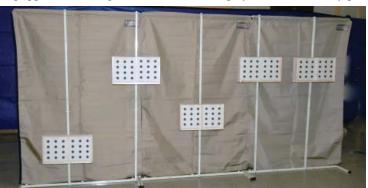


The use of CBIs as safety flags should be mandatory in all instructional and competition air rifle activities. The CBI must be cut long enough so that it also projects out of the barrel.

CBIs. Clear Barrel Indicators must be available for every air rifle. The best way to acquire CBIs make them from 0.080" fluorescent orange weed trimmer cord. Cut them approximately 8" longer than the full length of the air rifle barrels.

Slings. Slings are mandatory for anyone that wants to learn how to shoot prone and kneeling (and sitting, if it is used) correctly. 3/4" slings shipped with Daisy sporter air rifles are suitable and easy to adjust. In sporter air rifle shooting, slings up to 1 1/4" in width are legal and are a better choice, especially for competition. Daisy now offers a 1 1/4" wide slide as a separate purchase item. 1 1/4" wide military web slings may be used. The GunSnot sling (available from Champions Choice) is also an excellent and legal sporter sling.

Target holder/backstop system. Every air rifle range must be equipped with a target holder and backstop system that not only pro-



The Creedmoor Air Rifle Target Backstop is provided in 5-firing point units and includes a takedown steel frame, target boxes with internal pellet traps and a backdrop curtain.

vides for hanging targets at the prescribed heights, but that also safely and effectively captures all fired pellets without ricocheting pellet fragments back to the firing line. Unless the range area has a back wall that can take hits from occasional stray pellets, there must also be a range backdrop curtain that can prevent stay pellets from striking the walls. The best backstop available is the Creedmoor-CMP Target Backstop that comes in five-firing point units (5 dual target boxes, ballistic nylon backdrop and takedown steel frame and carrying cases). These air rifle range systems can be purchased through CMP for \$1,795 each including shipping. Teams and clubs can also make their own target holders by using designs that are posted on the CMP website at http://www.odcmp.com/Coaching/target_stand_plans.htm. Materials costs for these backstops are usually about \$50-75 per firing point. A third and very low-cost alternative is to fabricate pellet traps by filling cardboard boxes with newspapers or similar material; targets can be pinned to the outside of the boxes.



The wearing of personal **eyeglasses or safety glasses** is highly recommended for air rifle shooting.

Safety Glasses. In air rifle shooting, there is the remote possibility of a pellet fragment bouncing back from the target backstop to the firing line. For this reason, it is highly recommended that shooters wear either personal eyeglasses or safety glasses while firing air rifles. The wearing of safety glasses is mandatory in some programs and clubs. Organizations should have a supply of safety glasses available for use by all participants who do not wear eyeglasses or have their own safety glasses. Safety glasses for air rifle shooting should have clear or yellow polycarbonate, scratch-resistant lenses that are mounted high enough to give unrestricted visibility in the shooting positions. Suitable shooting glasses now retail for \$10 to 20. It is important to keep the lenses of shooting glasses clean so it is a good idea to have alcohol and soft tissues available to clean them.

Rear Sight Blinders. Many new shooters who are cross dominant have difficulty in their first firing exercises. The best way to correct this problem is to attach a blinder to the rear sight so that it blocks the view that the non-aiming eye has of the front sight and target. Many other shooters simply feel that having a blinder on their rear sight makes it easier to aim. The best



Having **rear sight blinders** available for air rifles used by cross-dominant shooters is a must for successful initial firing experiences.

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blinders are handmade; do not try to purchase them. Cut 30mm x 100mm strips of translucent plastic out of empty milk jugs. Punch a small hole in one end so the blinder can be slipped over the rear sight aperture stem.

Pellets. Pellets used for air rifle target shooting must be flatheaded, wadcutter-type lead pellets that weigh approximately 8 grains. Pointed, round-nose or steel pellets are not acceptable. Material harder than lead can cause dangerous ricochets. No non-lead or so-called "green" pellets have totally adequate accuracy for serious target shooting. Fundamental considerations in selecting pellets are accuracy and cost. Pellets may be purchased from local sports equipment retailers, but caution is urged since many of these pellets are so inaccurate they are not suitable for target shooting. Have a skilled shooter test a sample of any commercial pellets by firing them from a supported position or bench rest to confirm their accuracy before purchasing large quantities. Five or ten shot test groups fired with good-quality precision air rifles should not be larger than 5-6mm (measured center to center or 10mm measured outside to outside). Pellets manufactured specifically for target shooting that are sold by the CMP and established shooting equipment suppliers cost more, but their quality is assured. Target grade air rifle pellets vary from training to match grade. The lowest-cost training grade pellets sold by these firms are suitable for junior training. Match grade pellets are not needed until individual shooters become advanced competitors.



The BMC Target with its much larger scoring rings should be used for all instruction with new shooters.

Targets. Two types of targets are used for air rifle target shooting. It is highly recommended basic instruction for new shooters begin with the BMC Target. This target has scoring rings that are large enough to allow all well aimed shots fired by new shooters to still score hits. BMC targets can be ordered from the CMP (http://estore. odcmp.com/Store/ catalog/catalog.aspx) for \$7.50/250 (order NLU #052). Air rifle

shooters who are properly instructed will soon reach the point where they are ready to "graduate" to the regular 10-bull air rifle competition target. The standard NC-AR10 target can be purchased from the CMP for \$15/250 targets (order NLU #051).

SPORTER TRACK— PRIORITY #2 EQUIPMENT—Additional equipment needed to teach three position shooting.

Kneeling Rolls. A kneeling roll is necessary to build a stable kneeling position. Kneeling rolls are cylindrical bags typically filled with a material that does not compress and that holds its shape during firing. The best kneeling rolls can be purchased from Shooting Equip-

ment Suppliers. For programs on limited budgets, satisfactory kneeling rolls can also be made. Instructions for making kneeling rolls are posted on the "Coaches Resources" web page on the CMP web site at http://www.odcmp.com/CoachingResources.htm. In a pinch, a starter kneeling roll can be made by cutting a 8-10" wide strip of carpet and taping it into a roll.

Shooting Gloves. A glove or mitt is needed for the hand that supports the rifle to provide nonslip contact and increased comfort



Kneeling rolls may not be larger than 18cm in diameter and 25cm in length. Ideal kneeling rolls are smaller and usually are only partially filled with stuffing so that a depression for the foot can be formed in the center of the roll.

in holding the rifle. Commercial shooting gloves can be purchased from Shooting Equipment Suppliers; all serious competitive shooters will want one. If the organization does not have an inventory of shooting gloves that new shooters can use, it is best to advise participants to bring a leather work or sport glove from home that fits on the left hand (right-handed shooter).



Shooting mats should be used in the prone (and sitting) position, but not in standing or kneeling.

Shooting Mats. A shooting mat provides padding for the elbows and keeps the body from lying directly on the floor or ground when firing in the prone position. Special shooting mats with a padded, non-slip rubber area for the elbows can be purchased from Shooting Equipment Suppliers. Like kneeling rolls and gloves, it is possible to improvise for a while by utilizing carpet strips, but a shooting mat definitely enhances the marksmanship experience.

Rifle Supports. The best way to get a quality initial shooting experience for large numbers of beginning juniors is to do their first range shooting from a supported position by firing off of a support placed on the table or floor. It only takes three or four shooting sessions in a supported position for students to become comfortable handling the rifle and to understand safe range procedures, basic shot technique and sight adjustment. Then they will be ready for the standing position. Sand bags, low-cost bench rest-type supports or other similar supports should be acquired for this purpose.

Pellet Holders/Stands for Standing. When beginning juniors fire in the standing position, some type of device is needed to hold their pellets within easy reach. Leaving a pellet container on the floor and stooping down to pick up pellets while loading is not a safe procedure. An empty Daisy pellet box can be clipped to the belt or trouser pocket or a simple pellet holder stand that places the pellet container at waist level can be made. This is not something that needs to be purchased.

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Having new shooters do their initial firing in a supported position on a table is usually the most effective way to establish basic gun handling and shot technique skills needed to advance to standing and other firing positions. Supports like the one shown here are needed to do this.

SPORTER TRACK—PRIORITY #3 EQUIPMENT—Additional equipment needed for advanced instruction and participation in three-position air rifle competition.

Spotting Scopes. Spotting scopes allow shooters to see each shot and their shot groups so that they can effectively adjust sights while firing on sighter bulls as well as during record firing. It is possible to introduce the use of spotting scopes too early when they are a distraction rather than an aid to progress. Once juniors reach the



Spotting scopes used for air rifle shooting do not need to be big or expensive. Just be sure the scope focuses clearly at the 10-meter distance.

point where they are firing 3x10 courses of fire, however, they are ready for spotting scopes. Scopes suitable for ten meter shot-hole spotting are commercially available for as low as \$100 or a bit less. A 15-20X scope has more that adequate power for air rifle shooting, but be certain the scope focuses clearly at ten meters before purchasing it.

Spotting Scope Stands. Spotting scope stands allow the spotting scope to be adjusted for each position so that the shooter does not need to get out of position to spot shots. Current spotting scope stands are relatively high priced compared with the cost of suitable spotting scopes, but efforts are being made to find lower-cost solutions to this need that will meet the needs of low-budget junior programs.

Gun Cases. Hard sided gun cases have become the standard means of storing and transporting air rifles in many programs. Having a gun case is a definite need when traveling to matches or when transporting a rifle from home to the range and back. A wide selection of suitable gun cases is available from Shooting Equipment Suppliers and commercial retail sporting goods stores. Just be sure the air rifle fits in the case. Also, mark the end of the case where the muzzle rests so that the air rifle can be kept pointing downrange when it is removed from the case.

Rifle Stands. Rifle stands are not essential for conducting position rifle instruction, but they are common items of equipment for all rifle competition shooters because they provide a convenient, safe place to rest the rifle between shots. These stands also serve as pellet holders. Since most ranges do not have benches or tables on which to rest the rifle between shots, most competition shooters regard rifle stands as essential for advanced standing position shooting.



Rifle stands give the standing position rifle shooter a convenient place to rest the rifle between shots.

This discussion of team and club equipment that is needed for beginning junior rifle marksmanship instruction and initial competitions will continue in the next **On the Mark** with an examination of equipment needed for precision air rifle and smallbore rifle programs.