California Small Game and Varmint Pellet Rifle Hunting. Game, Gear & Technique.

By Robert Hamilton & Tom Jue
Posted with Permission from Robert Hamilton

Central California air rifle hunter,Tom Jue, with a favored pcp, long range sniping ground squirrels. Notice the many ground squirrel den entrance holes in the ravine bank. Just over the far ravine bank is a barn storing shelled corn that the ground squirrels "commuted" to and from. Many ground squirrels bit the dust this day, not being wary at 60+ yards away. Tom rarely misses with a good pcp.

Introduction: What is "airgun hunting" and why do it?

Pellet rifle hunting is a scaled down version of varmint and small game hunting, normally done with a .22 Rimfire (.22RF) firearm. Pellet rifles are used instead of .22RF firearms for safety and perhaps surprisingly, for effectiveness. Often, you can find land for air rifle hunting, plinking and target shooting a lot closer than if you wanted to use a firearm. That a pellet rifle offers greater safety is no surprise, but greater effectiveness than a firearm? Well, listen.

I was at a deer hunting camp located on an old ranch in Northern California. I had brought my old West German .177 caliber Weihrauch HW35E single shot, break-barrel

cocking, steel spring-powered air rifle. It shot 8 grain diabolo pellets at about 700 fps (feet per second) at the muzzle. Like a badminton birdie, diabolo pellets slow down fast. So, I had low power and short range. Another hunter had brought a .22 RF rifle. Ground squirrels were numerous in and around the old ranch buildings and adjacent fruit tree orchard. We had a contest to see who could get the most of these farm and ranch pests.

No contest. In one afternoon, I got over twice the ground squirrels the firearm hunter shot. Why? Simple. The .22RF, while vastly more powerful and longer ranged, was so much louder than my lowly springer pellet rifle, that the ground squirrels spooked and stayed out of sight, down their burrows limiting the firearm hunter's success.

My low powered pellet rifle was quiet, as 'springers' are and didn't spook the ground squirrels. So, I got a lot more shots and a lot more ground squirrels. This despite the need for me to stalk within about 30 yards.
So, let's talk about how to go about hunting with a pellet rifle.

Part 1. The rules.

Airgun legalities, game and pest: California situation:

California leads the nation in pellet rifle hunting? Thanks to progressive thinking on the part of the

California Department of Fish and Game (DF&G), pellet rifles are legal means of take for all (that's
"ALL") California Resident Small Game.

DF&G regulations: Chapter 2: Resident Small Game: 311: Methods Authorized for Taking Resident Small Game:

(f): "Air rifles firing pellets and powered by compressed air or gas (0.20 caliber minimum for taking wild turkey);"

Ok, so what critters are open to airgun hunters in California?

DF&G regulations: Chapter 1: General Provisions and Definitions: S257: Resident Small Game Defined:

"Resident small game means the following resident game birds: Chinese spotted doves, ringed turtle doves of the family Columbidae, California quail and varieties thereof, Gambel or desert quail, mountain quail and varieties thereof, blue grouse and varieties thereof, ruffed grouse, sage grouse (sage hens), white-tailed ptarmigan, Hungarian partridges, redlegged partridges, including the chukar and other varieties, ring-necked pheasants and varieties, and wild turkeys of the order Galliformes, and the following game mammals: jack rabbits and varying hares (genus Lupus), cottontail rabbits, brush

rabbits, pigmy rabbits (genus Syluilagus), and tree squirrels (genus Sciurus and Tamiasciurus)."

What else can you pellet rifle hunt in California?

Nongame "varmint" hunting in California:

DF&G regulations: Chapter 6. Nongame animals: S472. General provisions:

"(a) The following nongame birds and mammals may be taken at any time of the year and in any number except as prohibited in Chapter 6: English sparrow, starling, coyote, weasels, skunks, opossum, moles and rodents (excluding tree and flying squirrels, and those listed as furbearers, endangered or threatened species)."

And how can you take them (what weapons)?

DF&G regulations: Chapter 6. Nongame animals: S475. Methods of Take for Nongame Birds and Mammals:

"Nongame birds and mammals may be taken in any manner except as follows:" The exceptions are sections S475(a), (b), (c), (d), and (e).

Section S475.(a) says that you can't use poisons. Section S475.(b) says that electronic game calls are only ok for coyotes, bobcats, crows and starlings. Section S475.(c) says that various exotics like fallow deer, sambar deer, axis deer, feral goats, etc. can only be taken with various firearms and archery gear described in Chapter 3 Big Game, Section 353. Methods Authorized for Taking Big Game.

Section S476.(d) restricts the use of leg-hold and other traps. And Section S476.(e) says that you can't put out bait while using dogs to hunt non-game, and bobcats have other restrictions listed in Section S478.

Of the above non-game species, English sparrows, starlings and ground squirrels are very suitable quarry for most pellet rifle hunters.

Anything more?

Blackbirds and starlings sit on a farm fence as I do a scouting "walkabout" to see what is on the farm and where it is. It turned out the best blackbird hunting was not out here in the corrals area, but instead a few hundred yards away in the feed storage shed where I could get closer and could set up a blind.

Robert's homemade Blackbird/starling decoys. Two inch foam sheeting, cut into silhouettes, spray painted black and made to sit on branches via a cut slot or on the ground via a double ended toothpick.

My partner Tom Jue and I use our pellet rifles to eliminate blackbirds on private lands where we are authorized by the landowners and where they are causing economic or health concerns such as damaging farm crops and/or eating livestock feed and pooping in the livestock feed. Federal depredation regulations cover this area.

Federal depredation regulations: 50 CFR 21 General Permit Procedures: Subpart D—Control of Depredating Birds:

S21.43 Depredation order for blackbirds, cowbirds, grackles, crows and magpies. "A Federal permit shall not be required to control yellow-headed, red-winged, rusty, and Brewer's blackbirds, cowbirds, all grackles, crows, and magpies, when found committing or about to commit depredations upon ornamental or shade trees, agricultural crops, livestock, or wildlife, or when concentrated in such numbers and manner as to constitute a health hazard or other nuisance:"

Robert in a hay bale blind with Beeman R7, about 25 yards from the group of blackbird/starling decoys sitting by the almond hulls pile Sunny days are far better hunting than rainy for blackbirds/starlings.

Homemade blackbird/starling decoys set out in a small group by a pile of livestock feed (almond hulls). Since the decoys are where the pest birds habitually come to feed, the decoys work quite well here.

Early morning scouting trip: farm crows taking a look at me as I look at them. Smart, cunning and wary quarry, crow hunting attracts varmint hunters looking for maximum challenge. It only takes a few hunts before your local crows know both your car and your face.

Crows with pellet rifles?

All is not perfect admittedly. Crow hunting regulations are in need of some progressive reform. Crows are like the old Certs mint commercials: "It's a candy mint. No! It's a breath mint. No! It's two mints in one."

Crows are classified as both migratory game birds (shotguns only, late year hunting season) and depredation control species (firearms, bow and arrow or poisons, with special restrictions on poison usage). As depredation control species, Crows may be taken all year long, but only in accordance with Depredation regulations.

Are crows fair game for pellet rifle hunters, just as all California Resident Small Game species are? Well, it's confusing. The regulations say shotgun only for the annual crow sport season; but "firearms" for doing depredation hunting. While pellet rifles seem to be implicitly included in "firearms" (as you know, sometimes airguns are defined as firearms for legal purposes), pellet rifles aren't explicitly defined for depredation crow hunting.

Why care? Well, a local farmer had a flock of about three hundred crows on his lands, damaging agricultural crops. He asked us to help control them and gave us authorization.

Early one Saturday morning, I took my old 12 gauge duck gun and positioned myself out in the middle of one of the farm fields. Many crows flew by and I shot at them with my firearm shotgun, getting some and discouraging others. Within 45 minutes, like a scene like in the movies, locked and loaded semi-automatic firearm handguns were being aimed at me. I was body searched and handcuffed like a common criminal by Sheriff's Deputies who treated me, though out in the middle of a large, vegetable crop field, on a large farm, miles from town, like I was a bank robber.

After an hour or so, I was unhandcuffed and released after they finally figured out I was doing nothing wrong, having my authorization, my hunting permit, not being near any dwellings/buildings, etc. etc. and by my staying cool, calm and collected.

I had a pellet rifle in the car as well, and let one of the cops try a few shots with it. The cop commented that if I'd been using the pellet rifle on the crows instead of the firearm shotgun, I would not have gotten hassled.

So, I called my local California DF&G warden, his boss, and on up the chain of

command to DF&G Headquarters in the capitol of California, Sacramento, and asked each time, if it was ok to do depredation control hunting of crows with a pellet rifle. All said yes. I pointed out that "firearms" were required and would pellet rifles be implicitly included? I was told by all DF&G folks I talked to, including the Sacramento H.Q. that they had no problem with my use of pellet rifles.

I went a step farther up the chain, to the Federal Government and talked to the regional boss for this topic, in the U.S. Department of Agriculture. He told me the same, crows? Depredation control hunting? Pellet rifles? No problem. But I'd be more comfortable with Federal depredation regulations making pellet rifles explicit rather than implicit. Until explicit authorization, one depends on the judgement call of the DF&G game warden you deal with, imo. The end of the story? I heeded the cop's advice and after that used a pellet rifle on that crow-plagued farm.

After four or five hunts, a bit over one hundred crows were taken care of. I used my 12-13 ft/lb muzzle energy (M.E.) FWB124d or my 6 ft/lb M.E. Beeman R7-u.h. I used the R7 initially as these unhunted crows let me get within about 30 yards. Later, when they were spookier and I couldn't get closer than about 50 yards, I switched to the more powerful FWB124d air rifle which let me knock them down at 50 yards. After that, the crows moved off the farm, pleasing the farmer.)

Crows over a dead tree. This dead tree was about a mile from the crow's roost and next to a

farm field they fed in. This turned out to be a good spot.

Hunting license/hunter safety class required to pellet rifle hunt?

In California, a valid hunting license is required prior to hunting, firearm or pellet rifle, game or nongame. Successful completion of the California Hunter Safety Class is required prior to buying a hunting license.

Public vs. private lands? Which is better?

Public land:

There is no free lunch. Tom Jue and I hunt Central California's Los Padres National Forest, public lands. Miles and miles and many more miles of hill and dale, mountain, small valleys, flat and sloped, grassy open lands dotted with huge deciduous oak trees, heavily pine tree-forested coastal mountains and tall, brush-choked hills so steep that just thinking about climbing them makes me break a sweat.

Deer, coyotes, raccoons, skunks, squirrels, wild pigeons, doves, quail, wild turkey, bobcats, foxes, mountain lions, the occasional feral pig, ground squirrels, rabbits, a few crows and starlings, and rattlesnakes. Hot summers. Really pleasant the rest of the time. Rainy winters. Take Highway 101 to King City. Take G14 thru Fort Hunter Liggett (FHL) military reservation (which offers limited, by permit hunting), go west through FHL and it's ground squirrel country in a small river valley, as soon as you are back on the national forest.

In this kind of rolling expanse of ground squirrel terrain, 12 ft/lb's M.E. is about the minimum power level appropriate. Note the bipod Robert is using. A ground squirrel at 50 yards is too small a target to want to shoot unsupported.

Los Padres National Forest: Beautiful scenery. Open every day of the year. Uncrowded. Miles and miles of beauty. We love it and every ground squirrel hunt we've done there was a treat! However, whether varmint or game, because it's open year round to public hunting, the critters are spookier. While getting within thirty-five yards of a ground squirrel is easy in the late Spring, by late Summer, the ground squirrels have been hunted so much and mostly by firearm varmint hunters, that the ground squirrels are running for their holes before we get within 100 yards. And once down, they stay down.

Late summer ground squirrel hunting is what I call "Trophy Ground Squirrel" hunting. By late summer, the ground squirrels play so hard to get that any ground squirrel you get is a trophy to be proud of.

Private lands:

Tom Jue and I currently have pellet rifle hunting access to about five farms and ranches, one as small as 100 acres and one as large as 1,000 acres, all no more than a 30 minute drive away. Oddly enough, the small farms and ranches are better pest hunting than the big ones. Why? The small outfits often can't afford the expense of pest extermination, using poison.

Our private lands beautiful scenery? Sorry. No comparison to Los Padres National Forest. Often, we have to use lower-powered, shorter-ranged "urban hunter" pellet rifles due to the presence of livestock, farm workers, farm kids, vehicles, buildings and public roads and neighboring dwellings being only a few hundred yards away. While my 17 ft/lb Muzzle Energy (M.E.) Beeman R1 breakbarrel springer or Tom's much more potent Career707 pcp air rifles are our choices for Los Padres, our meek and mild 6 ft/lb M.E. Weihrauch HW55 and Beeman R7-urban hunter pellet rifles are best for much of the private lands we hunt.

Our private lands give us better varmint/pest hunting, more critters, at shorter distances. But getting hunting permission for private farms and ranches is difficult here in California. Landowners are often hesitant due to liability concerns. At one farm, the manager told me how he gave permission to an in-law of his. The guy slipped, hurt himself and sued the farm. It took me about two years to get varmint hunting access on one farm, and it took another farmer to get us "in". Obtaining private land access near major urban areas here is tough.

How to find a place to hunt….or even target shoot and plink?

For public lands, get a map showing National Forests and Bureau of Land Management (BLM) Federal public lands. Phone or visit the Forest and BLM managers. Scout those lands for good spots to hunt, fish, camp, etc. Call your State Department of Wildlife/Fish and Game and talk to them about available State lands for hunting/shooting. Some military reservations offer hunting in wild areas when not in use for military training. It's not hard, compared to getting private lands access.

For private lands here in central California, I recommend thinking as if you were job hunting. Be patient, be perseverant, network when you can and plan on spending a lot of time at it.

But be not dismayed, getting your first private lands access is the toughest. Getting on at the second farm or ranch is easier, the third is easier yet. Why? Farmers and ranchers tend to know each other. If you are safe, responsible and effective at the first private lands you get permission for, you may find your landowner knows the farmer/rancher of the next place you want to get access to and is willing to recommend you to the next farmer/rancher.

Tom Jue and I were doing such a good job of farm pest hunting at one farm, that the farmer arranged permission to do the same at a farm of a friend of his, some miles distance, but still a short drive. Just be careful not to bite off more than you can chew. Farmers and ranchers don't give hunting access because they like your smile. They have expectations. They have a pest problem and expect you to help solve it. Spread yourself over too many farms and ranches and you get a bad reputation for not being effective in reducing the ground squirrel, starling or barn pigeon problem they have.

How to get your first farm or ranch pellet rifle hunting access? Scout the phone book for farms and ranches. Scout via your car and binoculars. Most farm land, especially the big farms, are so intensively cultivated that their acreage has the ecological diversity and wildlife population of a parking lot, if that much. That's ok if you only want a place to plink and target shoot, but getting a farmer to ok just you shooting targets is harder than convincing him that you are "the man" to fix his ground squirrel, etc. pest problem. Ranches don't have quite this over-cultivation problem and pest critters tend to more be where livestock is.

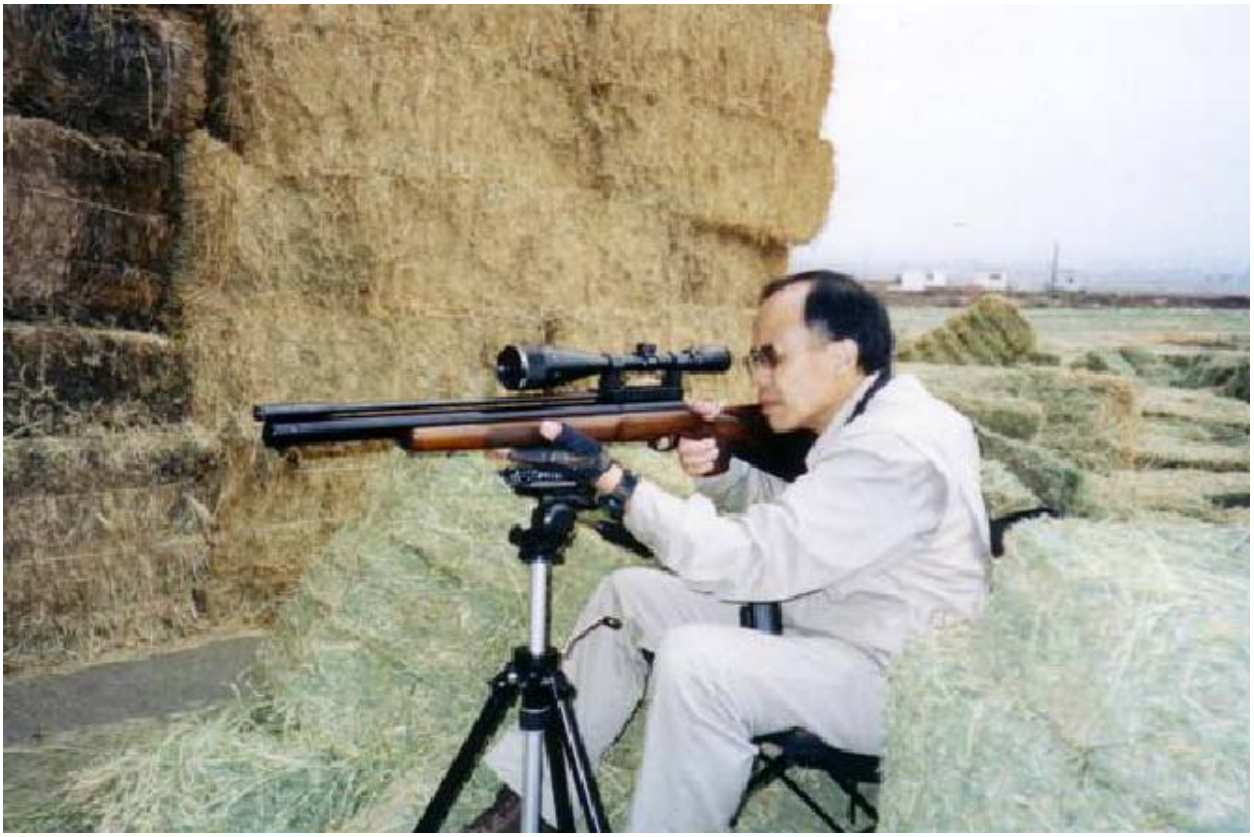
Basic hunting kit: Pellet rifle, laser range finder, binoculars and padded glove. Note the Beeman pellseat which helps with velocity consistency with my low and mid power pellet rifles. Rifle shown is my .177 Beeman R7-Urban Hunter, a good choice for small farms where shorter ranges are the norm. Swift 4-12x 40mm scope on Mac1 custom drooped one piece BKL mounts. Stock is a walnut Abernathy with extension. Internals are Maccari. Compare the R7 to my glove and the starling. It's a seriously petite rifle, but I can't argue with sub-1" 60 yard, 5 shot JSB Exact 4.52 groups. White patch on stock is a trajectory table.

We've noticed that the farmers around here seem to prefer face to face contact for important decisions, like whether or not to let you on their land. Go in person. Dress neatly, but not in camo and not in a business suit. Leave your air rifle in the trunk of the car, as it is non-intimidating out of sight but available in case the landowner shows curiosity and you feel it helpful to show your "pest busting tool" to him.

A tip: if you have a super duper $2,000 Field Target (FT) rifle with a huge scope and other bells and whistles and also a "lowly", petite Beeman R7 springer or a Benjamin/Sheridan compact pumpup, leave the $2,000 whiz banger at home and bring the "ladies" gun. I bring my little .177 Beeman R7 springer and a few pellets. A little Beeman R7 pellet rifle doesn't look as "dangerous" as a Career707, big FT rig, Olympic Match rifle, Theoben Rapid12, Beeman R1, etc.

I hand the farmer a .177 pellet (looks smaller and more harmless than the bigger, heavier .22 pellets) and usually end up letting the farmer fire a shot or two through the R7, "phut"…sounds weak and non-intimidating. If a Ben/Sheridan, just pump it a few times. You don't want it sounding like a .22RF. The idea is to show you are a decent chap, mature, safe, responsible and use a safer-than-firearms means of effective pest reduction.

Part 2: The gear:



Tom Jue with pcp, picking off the big California ground squirrels common to Central California for a local farmer.

The critical gear needed for serious pellet rifle hunting is pellet rifle, pellets, rangefinder, trajectory chart, binoculars and appropriate clothes. The farther we get from our support vehicle (with the backup pellet rifle, extra pellets, etc), the more a light backpack is needed for things like food, water and emergency supplies (one CAN get lost or injured) and the more a buddy, or at least a functional cell phone, is smart. On a small farm, the car is a short walk away so we can carry the minimum.

Gear: Selecting a pellet rifle for hunting:

If there was a perfect pellet rifle, then this would be easy. No such critter exists. I'm exclusively a steel spring-powered pellet rifle guy and I use .177 caliber only. My partner Tom Jue? Well, I'm never quite sure what he's going to show up with. Sometimes a South Korean Career707 or English AirArms pcp (precharged pneumatic), sometimes a West German Weihrauch/Beeman RX1/HW90 gas ram break barrel, sometimes a steel springer breakbarrel Weihrauch/Beeman R9 or HW55 or underlever-cocking AirArms TX200 springer.

Tom might bring a Mac-1 Steroided .20 Sheridan pump-up pneumatic, a scoped pcp air pistol, or other. Tom has .177, .20, .22 and larger caliber pellet rifles, from a 6 ft/lb M.E. UrbanHunter to a big bore pcp with ten times the power! And I suspect Tom has his eye on a future Nibecker Quigley pellet rifle in .22 caliber, now that Lothar Walther has

agreed to provide the special barrels.

Why not a .22RF? More power, range and less money!

A .22RF firearm rifle is a great choice, for the unpopulated wilds of BLM (Bureau of Land Management) lands and National Forests. A .22RF has more power, longer range, good accuracy, and is often less expensive. The drawback is the greater need for safety concerns, and to make sure there are no people, vehicles, dwellings or livestock for a long distance, at least a mile, down range unless an unpopulated hill or mountain or soft dirt is around to be a safe backstop.

A .22RF firearm rifle is not an appropriate choice for an indoor target range either due to potential legality and safety problems. Face it, pellet rifles are viable niche players in the sports field of small game and varmint hunting, even if they are more fragile than firearms, being more sensitive to dust and rain.

PCP, gas ram, C02, pump pneumatic, springers and the Quigley.

PCP's:

A pre-charged pneumatic is to springers as a Japanese superbike is to a Harley, more performance, less character. Even I, a dedicated steel springer fan, admit that the ideal hunting pellet rifle is the right pcp. Non-hold sensitive, many recoiless models, easier to shoot more accurately, with much more power potential. Tom Jue and I have "loser buys lunch", 50 yard target shooting contests almost every hunt. But my only chance of winning is if Tom uses a springer. My best accuracy with a springer is rarely better than Tom's worst day with one of his pcp's.

Pcp's are great for pellet rifle hunting also because many are multi-shot repeaters and much less hunter movement is needed to ready a pcp than a break-barrel or side or underlever springer. Movement spooks game. The pcp shines here, along with their fast follow-up shot ability.

So, why don't I use a pcp? First, the average pcp pellet rifle is a lot more expensive than the average springer. Second, special pumps, compressed air tanks, hoses and gauges are needed. Pcp's internal compressed air tanks run low on air and so we have to know how many shots before it's time to re-fill. Understanding your pcp's power curve is related to this.

Second, pcp's are loud, and the more powerful the pcp the more loud the pcp, unless legally moderated. Recoiless? Not the "big bore", high-powered pcp's, Tom Jue's .25 caliber Career707 pcp, at full power, had quite a kick to it, and I just can't get excited over a pcp for varmint hunting where a hundred or so shots per hunt are fired. Pcp's are much more ideal for small game hunting tree squirrels, wild turkeys, rabbits, etc where

not a lot of shots per hunt are needed.

I regard the Theoben Rapid pcp as my idea of the best pcp hunter because multiple, pre-charged buddy bottles of compressed air can be carried along on the hunt, permitting a lot of shooting without a need to head back to the car and refill the pcp with air from a scuba tank, pump or air compressor, though for less "shoot a lot of shots" type hunts, many other pcp's are strong candidates, especially now with the availability with the smaller, lighter weight carbon fiber compressed air "scuba" tanks.

Gas Rams (gas springers):

This is the Weihrauch/Beeman RX1 and RX2, the Theoben gas springer models, or a steel springer like the BSA SuperSport that has been converted to gas ram. A sealed, high pressure gas spring replaces a steel spring, otherwise function is similar to a steel springer. A steel spring fatigues over time and velocity loss results. A gas ram has close tolerance seals that wear and leak over time, and velocity loss results. A gas ram pellet rifle is considered better at staying cocked for extended periods of time while hunting.

But a gas ram pellet rifle requires about 20% more cocking effort than an equivalent power steel springer and gas springers tend to have a louder, sharper report. Tom Jue's favored hunters are a .177 caliber Weihrauch HW90 and a Beeman/HW RX1 in .22 caliber. Sub-one inch, 50 yard, 5 shot groups with them are routine for him. He no longer has his .20 caliber Theoben Crow Magnum gas springer though. Despite it's reputation for fine quality and power, it was just too hard to group well with. Crow Magnums stir strong passion. Some owners find them incredibly accurate. Others don't. Our take is that the Crow Magnum gas springer is real hold sensitive.

CO2-powered pellet guns:

Bulk-fill C02 pelletguns get a lot more shots per charge than those using those small C02 cartridges.
Velocities are higher in hot weather than cold. Noisy for the power level. Great budget plinkers and repeaters. C02 used to power high-priced 10 meter Olympic target competition air pistols, but pcp technology has replaced C02 in high end pellet guns. There have been a few larger caliber, high power C02 airguns like the Farco C02 shotgun. But not many. There are few high quality C02 pellet rifles that are competitive with the better springers, gas rams or pcp's for hunting. C02-powered airguns are mostly low end plinkers, especially the air pistols. Not my choice for hunting.

Pump pneumatics:

Available pump-up pneumatic pellet rifles are typified by the American Benjamin/Sheridan pellet rifles. The new ones being made to fit the 'budget pellet rifle' market, with a trigger designed by lawyers, I can't help regarding the older

Benjamin/Sheridan's as better pellet rifles than current production. But a Ben/Sheridan given the full "Steroid" tune treatment by Tim McMurray (www.mac1airgun.com) is another story. Strengthened, made to produce more power with fewer pumps, trigger-tuned. Tim McMurray is the man transforming these "teenager" guns into something better. He's also the man to see for C02 bulk fill conversions and a lot else, including that cream of the crop of steel springer tune kit, the English Venom Lazaglide kit.

Robert with .177 caliber Feinwerkbau 124d break-barrel cocking, steel coil spring-powered "springer" air rifle. A collectible, classic sporter, precision machining and a Feinwerkbau match barrel make this particular rifle well favored by experienced springer fans. Scope is a Swift 4-12x 40mm. Mount is a Mac1-custom drooped BKL one piece. Note the original Vortek muzzlebreak. Also note the blue and black nylon pellet pouch on my belt. Under $10 at Walmart's camera section.

Still, these entry level pellet rifles aren't our choice for hunting due to slow and noisy pumping, loud when you shoot them, and being neither sling nor scope-friendly. Stocks are too short for larger size men also.

Springers:

Steel spring-powered pellet rifles are my favorites. Why? Personality. To me, steel springers have more personality. Harder to shoot accurately than pcp's, a good springer

can be used nearly as effectively and the attraction of an independent power source, free from the burden of scuba tanks, pressure gauges, hoses and too frequent re-fills, make springers ideal plinkers and varminters.

Steel coil spring-powered air rifles are quieter, lacking that loud "wanna-be-a-rimfire" firing noise common to many pneumatics. Also, often in plinking or varmint hunting, a lot of shooting gets done. It's very nice to shoot several hundred shots without concern for anything but having packed along enough pellets.

A decent plinking and pest control springer can be bought cheaper than a pcp and for the modestly
mechanically-minded, many steel springers can be maintained and repaired at home, and capable of like-new performance for years, years and more years with only periodic replacement of mainspring, piston seal, breech seal and lubrication.

Keep in mind that steel springer velocity loss may be due to breech seal, piston seal, mainspring, or a need to re-do the internal lubrications. My Beeman R7-u.h. had about 3,400 shots on a Maccari tune kit, velocity stable at about 585 fps with 8.33 gr. JSB Exact 4.52 pellets. Then velocity declined to 540 fps. A couple drops of Beeman Ultralube down the air transfer port only brought velocity up to 555 fps. So, I took the R7 apart, degreased and relubed the internals, and now, velocity is 590 fps with no barrel smoke after the shot. Spring was ok. Seals ok. Just needed a re-lube.

Randy Gunn model spring compressor

A mainspring compressor is, however, a needed "special" tool for most springers. I built my own "Randy Gunn" spring compressor (http://home.comcast.net/~pelletgunn/air.htm) and though changing battery, oil and spark plugs is pretty much "it" for me and my car, complete overhaul of my springers is no problem.

Quigley pellet rifles:

Tom Jue and I use this set up for our target shooting/trajectory plotting: folding camp chair and camera stand with heavy plexiglass 4"x5" plate on top to rest the hand on. Black tape holds the pad on top the plexiglass. Light and mobile setup.

Mechanical engineer, Al Nibecker's (email: ana@tcsn.net) Quigley series of advanced power plant pellet rifles are close to a final, ready-to-sell version. The power plant is remarkable and I expect at least 2" ctc (center to center), 100 yard, calm air, rested, five shot groups from a final version. Should be a great "Kentucky rifle" of a pellet rifle for distant small game and varmints, for advanced air rifle enthusiasts who believe in "one shot, one critter". The "Incredible Hulk" of a pump pneumatic, in a tuxedo.

More gear issues:

Hold sensitivity: target vs. hunting:

Hold sensitivity is a curse for a hunting pellet rifle. Many springers are hold-sensitive. A hold-sensitive pellet rifle is one that must be shot using the exact, same, precise hold for each and every shot, or the poi (point of impact) can vary shot by shot, resulting in a missed shot. The left hand has to be just so, each time. Dittos for the right hand, the cheek and shoulder-to-stock positioning and pressure. My old Feinwerkbau FWB124d is an example of a hold-sensitive pellet rifle.

With a rest, calm air, absolutely consistent hold and firing technique on the target range, my FWB124d has put five .177 JSB Exact 4.52 round head pellets inside an inch at 80 yards. It's done almost as well with Crosman Premier Lites. I've shot better 50 to 80 yard target groups with my ancient FWB124d than with my much newer, Field Target (FT)-suitable AirArms TX200. It's what I'd choose to win 50+ yard accuracy contests.

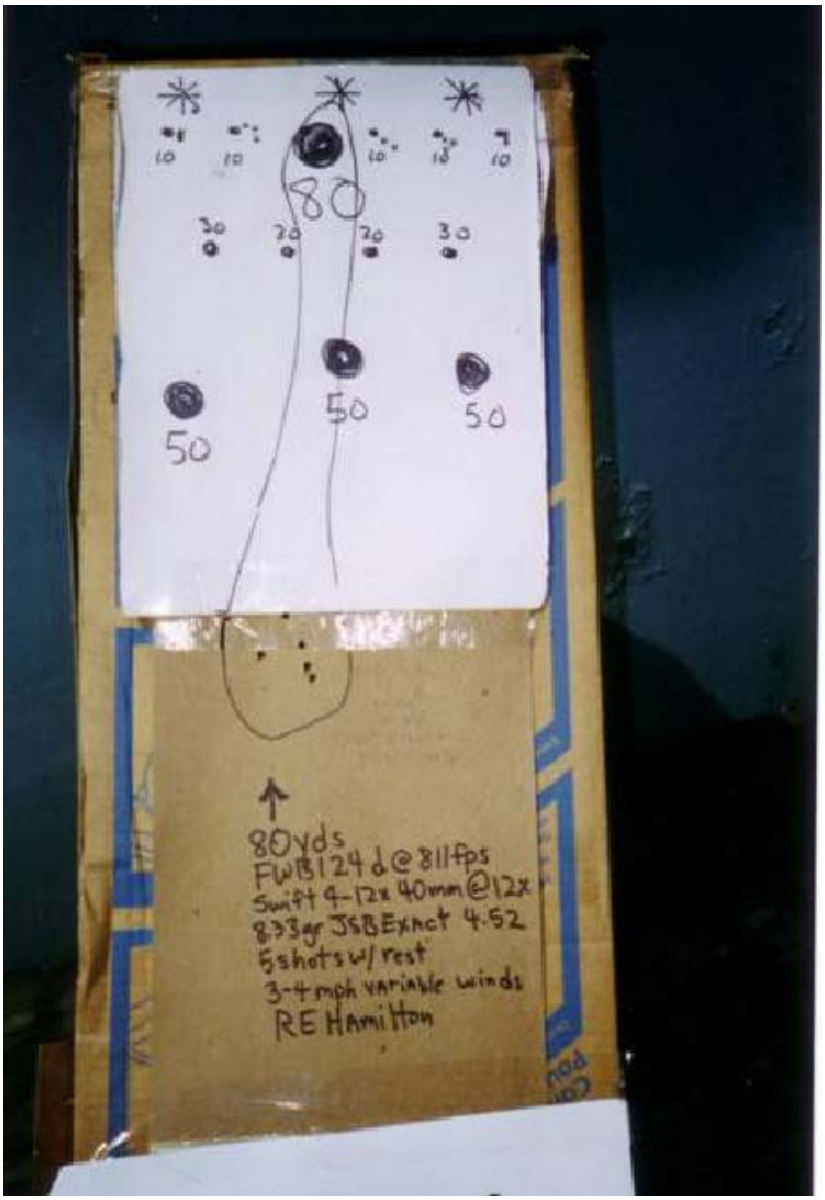
80 yards with my FWB124d. Target backstop is next to the vehicle. Photo is at the shooting position.

Yet, I've gotten so frustrated with my FWB124d's knack at suddenly moving my poi vertically up a couple inches or down a couple inches at 40 to 50 yards, in hunting situations, that it got left at home for many hunts, in favor of my TX200, Beeman R7 or Weihrauch HW55.

Sub-one inch ctc group at 80 yards. FWB124d with a Maccari 30 coil spring tune kit shooting 8.33 grain JSB Exact 4.52's at 860 fps. Not bad for a springer.

A hold-sensitive pellet rifle can be mastered by using that and only that rifle, getting to know and master every quirk. What also helps is to detune it. At 860 fps with 7.9 grain CPLite pellets, my FWB124d was very accurate but quite hold-sensitive. Changing the Maccari tune kit to a milder version, my FWB124d now does CPLites at 790 fps and 8.33 gr JSB Exact 4.52's at 815 fps and is easier cocking, quieter, milder in recoil and noticeably less hold-sensitive.

At 815 fps, my most recent five shot, JSB Exact 4.52 pellet group was not quite as good at 1 1/3" ctc at 80 yards, but then again a light wind was blowing this time. Power is great, but accuracy is better. This power level is almost down to the original factory power level. Perhaps some pellet rifles do best at the power levels the factory designed them for.



Detuned down to near factory power level, a FWB124d group at 80 yards.

What causes hold sensitivity in springers? The Beeman R9 is hold sensitive. The Webley Tomahawk has that reputation. Could it be that in springers, more power in a lighter mass pellet rifle makes for hold-sensitivity? My TX200 is not hold sensitive. In it's Maccari CS800 style thumbhole stock, it's not hold sensitive, though more powerful than my FWB124d ever was. Could my TX200 be non-hold sensitive because it's recoil is more straight back (less muzzle flip) and because it's a heavy gun at about 11 lbs with scope?

Ten meter match guns have a lot of weight, not much power, and great accuracy. In the varied position farm pest hunting I do a lot of, where ranges are short, consistent rifle holding is impossible and where low power is a plus due to small acreages, my non hold-sensitive Beeman R7 break-barrel cocking springer is what I pick as my primary "professional" farm pest hunter.

But, for the average small game or varmint hunt, the FWB124d is so easy handling and effective, it's worth the effort to master and hunt with it. Why does my partner Tom Jue have a Beeman R9 (Weihrauch HW95) but not a FWB124d? Availability. The FWB124d is only available occasionally on the used market.

The Beeman R9 is a break-barrel springer pellet rifle of about the same mid-size as the FWB124 and with more power. The R9 is available new (www.beeman.com) and it's Rekord trigger unit beats the pants off the FWB124's trigger unit. Only the aftermarket FWB124 custom machined aluminum FWB124 trigger blade I bought from Beeman's ($60 a couple years ago), has been able to give me a trigger feel close to a Rekord.

So, due to the FWB124d being hard to find on the used airgun market, my partner Tom Jue bought a Maccari-tuned .177 caliber Beeman R9. It too, is hold sensitive. A hold sensitive pellet rifle can be mastered. Tom Jue used to shoot his .177 Beeman R9 all the time. He became very good. I went ground squirrel hunting with him. The big California ground squirrels were across a ravine, on the opposite ravine bank. Distances were 50 to 64 yards (per my laser range finder). Tom was shooting. I, with binoculars, was spotting for him. No need for a backup shooter. I sat in awe as Tom toppled ground squirrel after ground squirrel, ranges 52 to 64 yards. Six ground squirrels in a row before the rest wised up. Head or solid upper chest shots. They dropped in place or within a few feet. The whole day went that way. Ground squirrels were everywhere on this cattle ranch and Tom was a magician with his Beeman R9 (Weaver v16 4-16x 42mm scope and 7.9 grain CPLite pellets). He came close to a triple digit day. Tom just couldn't miss! Months later, Tom, having since been bouncing from one to another of his varied collection of pellet rifles and gotten spoiled by the ease his pcp's hit with, had gotten out of practice with his Beeman R9. We went back to that same ground squirrel-plagued farm. Tom back to his R9 but now he couldn't get his R9 to hit consistently. Lack of practice seems to be linked to hold-sensitivity. Springer expertise takes real dedication.

Selecting a power level – match your gear to your quarry.

In golf, we use a driver for long shots and a putter for short. Why should pellet rifle hunting be any different? Match your gear to your quarry. Low power like the .177 Beeman R7 for small critters, close. High power like a .22 caliber Career707 pcp for bigger small game, farther away. There is no one pellet rifle ideal for all uses, but a 12 ft/lb M.E. pellet rifle is the best power level for someone with only one pellet rifle, but who wants a multi-use gun suitable for target, for plinking and for hunting. If I had only one air rifle, it'd be around 12 ft/lbs. Targets to 80 yds, small game capable to 50, good for plinking, FT and other target use, this mid-power level is capable and pleasant.

Which caliber?

For 6 ft/lb M.E. class target and urban hunter pellet rifles, go .177 caliber. They lack the

power for bigger (heavier) caliber pellets. There is a wider selection of quality .177 pellets than other calibers. .177 pellets fly faster, flatter and are cheaper than the bigger calibers.

For 12 ft/lb M.E. pellet rifles, go with .177 for longer airgun distance shooting and .20 or .22 for closer ranges. You will get around 800 fps with 8 grain .177 pellets and about 600 fps with 14 grain .22 caliber pellets. Forget .25+ caliber. Insufficient power.

For 20 to 50 ft/lb M.E. pellet rifles, .22 is best, for longer distance accuracy, flat shooting and speed. For 50+ ft/lb M.E. pellet rifles, yet larger calibers come practical, though the price per pellet of larger caliber pellets becomes more expensive.

Which pellets, pointed vs. wadcutters vs. round heads?

Simply put, go round/dome head pellets for distance and flat head pells for closer. Domes carry farther and penetrate better. Flatheads (Match pellets) pack more punch. Pointed head and hollow point pellets are for folks who enjoy experimentation. The slightest damage or inconsistency to a pointed head pellet's sharp point and accuracy is off. Hollow point pellets don't fly accurately in a number of pellet rifles and, like flatheads, are more vulnerable to winds. At closer ranges though, hollow point pellets have greater knock down power.

For hunting, I only use dome/round head pellets like Crosman Premier Lites (CPLites) and JSB Exact 4.52's because they give me the best accuracy at distance. A minimal-mushrooming penetrator pellet like the CPLite or JSB Exact with it's superior longer range accuracy beats a mushrooming, stopper-shocker hollow point pellet that isn't accurate. Tom Jue likes flathead pellets such as the 8.1 grain H&N Match for his HW55-urbanhunter and Crosman Premiers in his more powerful .177 and .22 caliber air rifles. Always go with the pellet that gives you the best accuracy. Trial and error is the way you find it.

Lower power pellet rifles, even at shorter distances, lack the power to make a flat head pellet penetrate as well. We were shooting targets at 50 yards with our 6 ft/lb M.E. .177 air rifles. I found my .177 Beeman R7springer could not penetrate three layers of heavy cardboard box material with the flat head H&N match pellets, but the round-head Crosman Premiers penetrated and kept going.

Accuracy was equal in my Beeman R7 with both pellets so I choose to use the CPLite penetrator pellets.

Currently I'm using the JSB Exact 4.52 pellets in my Beeman R7. Even though the JSB Exacts are heavier at 8.33 gr than the 7.9 gr CPLites, my R7 shoots the JSB's at 585 fps (570 with CPLites) and accuracy is just as good, if not very slightly better in my R7. Normally a heavy pellet shoots slower, but CPLites fit tighter in my R7 barrel and so the

greater pellet-to-bore friction slows the CPLites a little. Still, the harder lead alloy, thicker, more robust Crosman Premiers are less vulnerable to getting deformed, so I like 7.9 grain CPLites in my more powerful .177 caliber rifles, while Tom Jue likes the 10.5 CPHeavies.

Which scope, what magnification & mildots for airgunners:?

Between Tom Jue and I, we have scopes in magnification range from 2x to 32x. Jue's favored scope is the Weaver v16 4-16x 42mm. A very good range of useful power and I'd agree except for two things. First, the Weaver is a large enough scope to be better suited to a larger pellet rifle than a Beeman R9, FWB124, Beeman R7, HW55 or other small to mid-sized, low to mid-power hunting use pellet rifle. Second, it's too long for my smaller break-barrel cocking pellet rifles. Third, at 16x magnification, the field of view is so small, I often have trouble quickly finding the varmint or small game critter.

I long used a 2-7x scope. But a serious pellet rifle hunter needs to be able to see p.o.i. at longer distances. Even at 7x magnification, my 2-7x scopes were too low powered. A 4-12x scope, like the Swift scopes I favor (www.straightshooters.com and www.silverstreaksports.com) is the absolute best range of practical power.

The Swift 4-12x 40mm A.O. scope has three pluses: affordable, good optics, and good warranty backing. It's an excellent choice for an hunting scope. Mounts are BKL one piece.

Twelve power is about as high as one can go for a hunting scope and still find a small target at 50 yards, quickly. Four power works fine for close work.. Who needs a 2x scope? I've had such for decades and still must concede a 4-12x is a better all-around choice. Just be sure to get an "airgun" rated scope for springers with their peculiar "back&forward" recoil, that can destroy a "firearm" rated scope.

Tom Jue and I like Weavers, Swifts and Bushnell scopes for competitive optics, robustness, and affordability. There are cheaper scopes and more expensive. Your wallet

can choose. Just be sure to go a minimum 10 yard, A.O. (Adjustable Objective) range focus scope if you get a variable magnification scope.

Tom Jue has had custom mil dot reticles (crosshairs) on his scopes, done by a scope outfit called A.B.O. in Florida. Mildots give multiple aiming dots along the vertical and horizontal crosshairs of your scope. Great for hold over/under shooting, though not needed by scope "clickers" like expert air rifle marksman and hunter Galen Jang. Tom likes mil dot scopes and I wish my scopes had mildots too. My next scope purchase will be a Swift 4-12x 40mm scope when it comes with a mildot option.

Galen Jang, however has no need for mildot scopes since he is a "clicker". "Clickers" are folks who adjust the scopes adjustment knobs to allow them to put the crosshairs right on the target, at each distance, making point of aim the same as the point of impact. Holdover/under shooting is quicker but "clicking" is more precise. "Clicking" is favored in Field Target competition, where accuracy is more important than speed.

Scope mounts:

For the big 50mm objective scopes, increasingly popular these days, high mounts like the Beeman/Sportsmatch 5030H "56mm" high scope mounts are necessary. But for 40mm objective scopes, we have more choices. Tom Jue's and my mounts are a mix of Beeman/Sportsmatch, BSquare and BKL.

Tom Jue favors the big 50mm objective scopes which require high mounts like these Beeman/Sportsmatch. He is, by the way, ground squirrel hunting here. When you have to wait 20 or so minutes for a ground squirrel to poke it's head up out of it's burrow again, why not be comfortable while waiting?

The Beeman/Sportsmatch high mounts reduce the longer range pellet drop for hold-over/hold-under fans, but at the cost of increasing the mid-range trajectory hold-under amount, given a 10 yard zero. Somewhat lower mounts like the BKL and Beeman/Sportsmatch 5030M Medium "42 mm" mounts, mean less hold-under at mid-ranges but more hold-over at longer ranges, given the same 10 yard zero. I prefer medium height mounts as I find holding over is easier than holding under.

Over time, our preference in scope mounts for hunting pellet rifles has changed from two piece mounts to one piece mounts, especially for the larger scopes. Too often, with our two piece mounts, a sideways jarring on the scope has caused the point of impact (p.o.i.) to get shifted laterally, requiring re-sighting in, prior to more hunting.

One piece mounts have a mount-to-rifle receiver gripping surface that is much larger than that of two piece mounts and consequently one piece mounts are more resistant to the occasional bumps and jarring a scoped hunting pellet rifle occasionally receives.

Of our two piece mounts, the BKL two piece "double strap" mounts seem to fit our rifles' receiver scope groves more precisely and have a longer gripping surface than our two

piece Beeman/Sportsmatch mounts.

Many break-barrel pellet rifles have barrel droop. This can result a need to adjust the scope's vertical elevation adjustments far to the up side, just to get the p.o.i. hitting point of aim at closer ranges. Lateral "droop" may also exist.

Check for barrel droop by optically centering your scope. Optically center the scope by adjusting the vertical and horizontal adjustment dials until, when the scope is rotated in v-blocks, the crosshair center sits in place instead of moving up/down/left/right.

Mount the optically-centered scope on your pellet rifle and shoot at 10 yards. See where the group is. If not close to the aim point, then think seriously about an adjustable mount such as the Beeman/Sportsmatch or a BSquare adjustable mount. Tom Jue likes the Beeman/Sportsmatch adjustable. I like the BSquare one piece adjustable. Adjustables are mounts that have vertical and horizontal adjustment capabilities, greater than scopes. Adjust the mount to get p.o.i. and p.o.a. as close as you can with the optically-centered scope, so that the scope elevation and/or windage adjustments don't have to be dialed to their extreme vertical or laterally limits.

Alternately, Tim McMurray of Mac1 Airguns can custom machine droop correction into a non-adjustable mount. He has custom drooped all my BKL one piece mounts for both vertical and lateral droop for each individual rifle.

Sling it?

A hunting pellet rifle with a sling is a mark of a professional. A sling allows hands-free. In hunting, there is need to use binoculars, a rangefinder, talk on a two way radio, climb a fence, open a pellet container, eat, etc. A sling or carry strap means you don't have to hold that pellet rifle in your arm(s) all the time. Give the arm muscles a welcome rest too. Quick detachable sling swivels are our preference.

Best size and weight for a hunter.

Eight pounds, gun & scope. That's a good goal. Lighter is great. Heavier is tiring, especially on long hunts, on hot, sweaty summer days, over mixed terrain. Ever wonder why pellet rifle hunters who focus on wild turkeys like compact pcp's? Only pcp's allow high power and user accuracy in a compact, lightweight package. A short gun is nice in heavy cover.

Wood type/stock styles & finish?

Most pellet rifles with wood stocks come in beech. This is a strong, stable, dense hardwood that's available and cheaper than walnut. Unlike fancier hardwoods like walnut, cherry, etc, beech stocks usually are featureless and bland. Completely functional. Just boring.

Occasionally you find a nice beech stock. Tom Jue's AirArms TX200 came with a beech stock that was so nicely figured, it looks like grade2 walnut. But that's rare.

Two FWB124 stocks. Left is factory beech. Right is walnut. Both functional. The walnut a bit lighter weight and a lot prettier. Grip checkering not yet done on the walnut stock.

Walnut tends to be lighter weight than beech. It's more traditional and pretty, but more expensive. Does increase pride in ownership though.

Almost all air rifle stocks, as they come from the factory, are well designed, but check the finish. A hunting air rifle's stock should not have a glossy, shiny finish. Satin is fine. For a nice walnut stock needing more camouflaging than just a non-gloss finish, use adhesive camouflage tape, not paint.

Robert's Beeman R7. Note the pistol grip checkering, but no forearm checkering. The pistol grip should always be checkered or at least stippled on a hunting air rifle for a secure grip. No need for forearm checkering when the Artillery Hold is used.

Why no forearm checkering (& what is stippling)?

Springer pellet rifles, due to their dual recoil, almost always shoot the most consistently and most accurately using the Gaylord-described "artillery hold". This is a holding technique where the pellet rifle is held securely but not tightly with the right (if you are right handed), but the left hand does not grip the forearm of the stock. Instead, the stock's forearm rests on your open left palm. Consequently, the left hand fingers do not grip the forearm. Thus, there is no functional need for forearm checkering. There is, however, always value in the stock's pistol grip being checkered. The gun looks unfinished without pistol grip checkering on all but laminated wood stocks, and the checkering allows a more secure grip with less griping pressure by the right hand, and

fixes the problem of a sweaty hand, on a slippery, smooth stock on a hot day.

The left (for right handed shooters) hand should be gloved, when using the Artillery Hold. A padded glove minimizes the potential p.o.i. changes possible from shot to shot due to variation in muscle tension in your open palm. The glove also pads the back of the left hand when resting the hand on a fence post, or other hard surface, increasing comfort and thus shot to shot consistency, helping maintain user-accuracy.

Robert using a padded glove to increase comfort and to minimize muscle tension variation efforts when shooting a hold-sensitive air rifle like his FWB124d.

Hunting guns traditionally are checkered, not stippled. Stippling is seen more on match guns. Stippling looks nice giving a pleasant pebbly appearance but does not create as good a non-slip, gripping surface as checkering. It is a less expensive process though if you want something, and folks with some knack at it, have used even Dremel Tools to stipple.

How accurate (wind & rests):

How accurate is your pellet rifle? Wind drifts pellets not just left/right but also up/down. Do your accuracy testing in calm air. Use a stable rest. Tom Jue and I accuracy test with best results using the Artillery Hold with a modified camera stand rest, which we height adjust to be most comfortable to minimize any muscle strain. We sit in a folding

camp chair which offers both back support and arm rests to rest the right elbow on.

This technique allows us consistent, non-tiring shooting. It's how I got the good FWB124d 80 yard groups and how I got sub-one inch ctc, five shot, Beeman R7-u.h. groups at 60 yards, more recently. The idea is to test the rifle's potential accuracy, not the shooter's.

I'm not much of a shot without a rest. Consequently, I rarely shoot unsupported. In treeless terrain, I like a bipod, adjustable height shooting stick to give me that support. Bipod shooting sticks give better accuracy than regular "walking stick" style shooting stick as bipod shooting sticks don't have that side-to-side wobble. A somewhat more cumbersome alternative is to carry an adjustable camera stand that can adjust to be tall enough to allow rested standing shots.

Even if a more formal rest is not practical, any artificial support beats free hand. Here Tom Jue takes advantage of some hay bales to steady his aim during a farm pest hunt.

Remember to sight-in, trajectory plot and hunt using the same hold technique (preferably the Artillery Hold). The rifle's forearm rests on your open palm, not directly on top that wood fence post, etc. Consistency aids user accuracy.

Used vs. new?

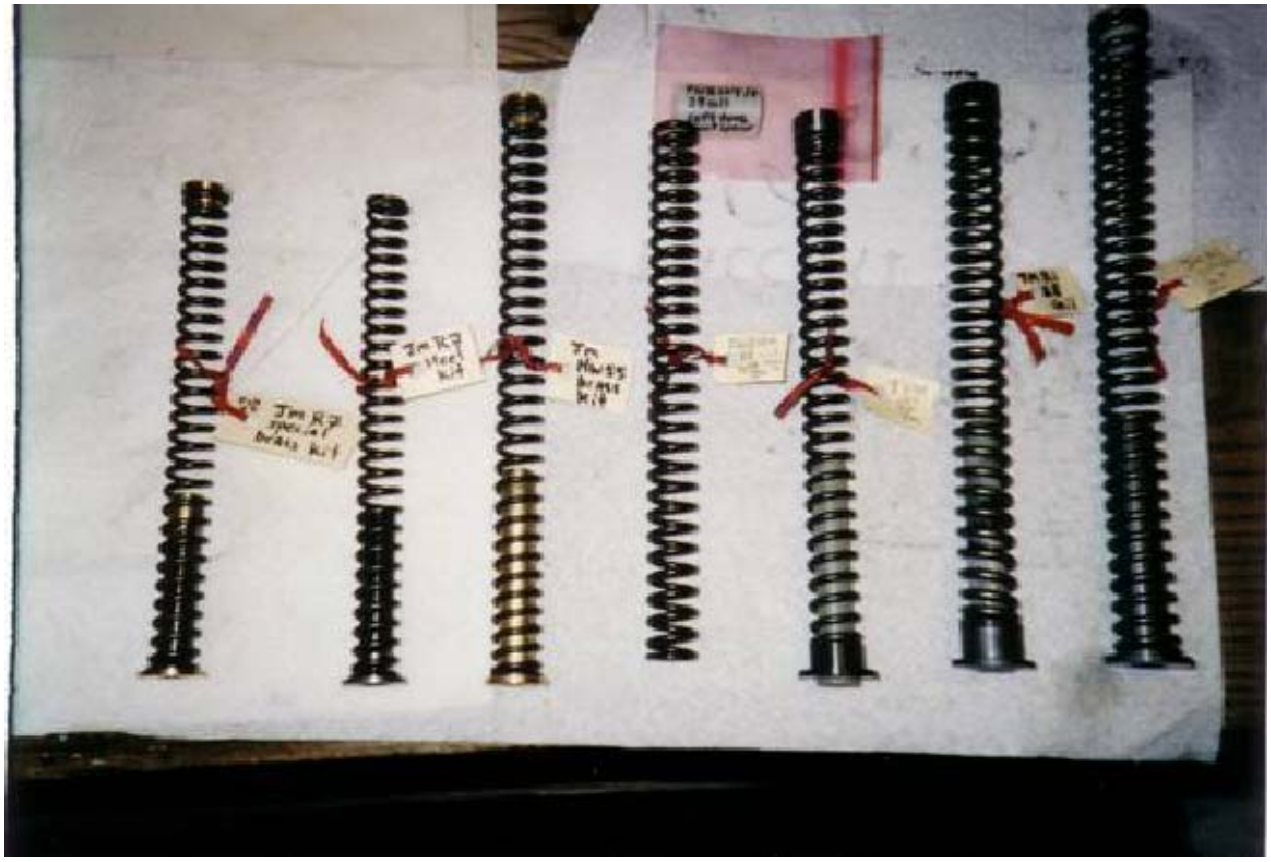
Good quality pellet rifles last decades if taken care of. Used pellet rifles are a money saving option as long as bought from someone willing to give you a 10 or so day period to evaluate that used gun, after purchase. Http://www.airguns.net/class_ad.html is an online used pellet gun sale site. Often owners of better quality pellet rifles sell to raise cash for a fancier pellet rifle, not due to defects.

That said, beginners in this hobby are better advised to buy new, from a reputable dealer, who offers a warranty. Beeman's lifetime warranty offers reassurance vs. concerns about getting a lemon. As far as price is concerned. remember, you still get what you pay for. Don't have high expectations for new pellet rifles under about $200. Learn before you buy. Read the information available at the Beeman's,

StraightShooter's websites and also become a regular reader at www.funsupply.com's airgun chatsite. It might save someone new at this sport, money and help them more intelligently select that next pellet rifle.

What's a "tune"?

First, when someone talks about "tuning" a pellet rifle, pretty much they are only talking about steel coil spring-powered pellet rifles. Pcp's, C02's, gas spring and pump pnuematic pellet rifles are usually about as good as they can be, from the factory, and also, aren't user-tune friendly. There just isn't a lot to be done to them to significantly improve their out-of-the-box performance. Steel spring-powered pellet rifles often have more potential for improving performance. A lot of the reason for having improvement potential is that so many steel springers are built to sell at more modest prices and so short cuts in fit and materials may be made at the factory. A custom steel springer pellet rifle tuner can change a budget springer's performance from something you are satisfied with (untuned factory gun); to something you are pleased with (lube-tuned factory gun) or even something you are very happy with (lube+custom parts, customized & tuned ex-factory gun).



An assortment of Maccari tune kits for (left to right), Beeman R7, R7, HW55, FWB124, TX200, R1 and R1. Lubes not shown. As you can see, springer powerplants are fairly simple in design but custom made and fitted tune kits, of superior materials such as these, makes a big difference in longevity and feel. The key is in the materials used and the precision of manufacture and fit.

A Weihrauch HW55 disassembled and undergoing installation of a Maccari mainspring & guid set.

Beeman moly grease being applied to the piston seal sides. Note the moly grease already applie to the rear skirt of the piston. Surgical gloves keep the hands clean and help protect against minc cuts.

A good, affordable "lube" tune is a "moly and velocity tar" tune. All parts remain factory. The pellet rifle is disassembled, degreased, minor burrs or other obvious and cheaply correctable defects are fixed. Beeman or Maccari moly grease is sparingly applied to the sides of the springer's piston seal and sometimes the trigger sear. Maccari velocity tar or moly grease is applied to the rear spring guide surface. The mainspring gets a light coat of Maccari's velocity or regular tar, and the springer is reassembled. This is probably the most bang for the buck tune. More sophisticated springer fans get this done plus custom internal parts, either via do-it-yourself tune kits like Maccari sells, or via a professional airgun tuner.

Maccari velocity tar being applied to the mainspring and rear guide of a Maccari tune kit for a HW55.

Russell Best, a professional pellet rifle tuner (BesTunes@cs.com / 203-484-7149) and machinist offers both factory parts lube tunes and custom tunes where higher quality, often custom-made internal parts are obtained from small custom suppliers like Jim "Springman" Maccari (http://www.airguns.citymax.com/page/page/251327.htm) or hand-machined out of higher performance materials and expertly assembled, turning that pellet rifle into a smoother, quieter, longer-lived, more user-accurate "custom". Paul Watts (http://paulwatts.netfirms.com) is a perfectionist-inclined springer tuner also offering expert springer tuning services.

Springer tunes can run about $50 to $200, depending on what is done, and "customization" can run a lot more. Like many adult hobbies, pellet guns come in a wide range of prices, the "custom" pellet rifles done by small, usually one-man airgunsmith shops costing the most. Hand-fitted, high quality, stocks of top grade walnut or other hardwoods are available. "Blue-printed", precision machined internals, superior steel alloy springs and seals, etc. are available. There is a lot of satisfaction from a custom pellet rifle. The "easy installments" route to a customized airgun is by starting out with a good quality factory springer and customizing it bit by bit, starting with a custom-parts internal tune. Better quality pellet rifles will last a lifetime and then some, if well-treated

and maintained. I bought my FWB124d new, about 30 years ago. It performs at "better than factory new" levels and one day my son will inherit it. Quality pays.

More Gear: (a rifle is just not enough):

Plinking is cheap. Get a pellet rifle, some pellets and go plink. Hunting is more expensive and involved. For a start, here in California, a valid hunting license is required even for hunting non-game like starlings and ground squirrels with an airgun. To get a hunting license, first you have to take and pass an authorized Hunter Safety Course. Your local gun store should be informed about such requirements.

Hunting Clothes:

There's a lot of variety. Cabela's (www.cabelas.com) demonstrates that point. But remember, not all camouflage clothing is "camouflage". Hunting in the woods, yes. But when hunting small game or pest species varmints on a farm or ranch, the best way to not spook your quarry is to dress like the folks who daily work on the farm. The critters get used to them. Don't stand out like a sore thumb on a small farm in woodland camouflage clothing if you are hunting animals not spooked by the constant comings and goings of the farm workers. Blend in. Dress like the farm workers.

Or go half and half. Here in gun-hostile California, where non-hunters have called the cops on us when we were only target shooting at paper bull's-eye targets taped to a cardboard box, way out in the National Forest, 30 miles from the nearest city….simply because of their beliefs that all guns are evil.

Galen Jang, Tom Jue and I shopped at Orchard Supply Hardware for our farm and ranch hunting clothes. At this large chain hardware store, we bought their light tan-brown work pants and shirt. About $20 each and made to last. We found matching, wide-brimmed, vent-top hats there too. Makes us look like a workman more than a hunter, but doesn't spook skittish city folks driving by like a paramilitary looking outfit would.

Robert hunting ground squirrels for a local farmer. Notice the Orchard Supply Hardware light tan-brown work pants and shirt. Blends in enough to be effective and avoids the paramilitary look that is not always desirable. The antennae of a short range two way, head set "walkie talkie" radio shows above Robert's hat.

Add a photo id badge clipped to your shirt pocket and you've created an image more of a professional pest control guy than anything else. Jue, Jang and I use this as our farm pest hunting "uniform". Better public relations than the paramilitary look. Machine washes easily, and being a neutral color that doesn't stand out, has a decent camouflage function.

Head net:

A mesh-head net plus good camo does wonders when hunting clever, wary critters like crows on well-hunted public lands. Hides our "shiny" faces and keeps the flies and mosquitoes off.

Gloves:

A good idea. Especially combined with camo clothes and head nets. Wary starlings, crows and magpies (where legal) can easily spot our hands as well as our faces.

Not camo, but disposable latex "medical" gloves are also good to pack along. Keeps hands cleaner when gutting that rabbit, squirrel or bird. Might as well carry some clean

plastic bags to stick that rabbit in before putting it in the daypack. Keeps the fleas confined to the rabbit.

Boots:

On the farm, I like calf-high rain boots like the farmers use. Orchard Supply Hardware and other hardware stores carry them for about $20. For the dry seasons, leather hiking boots with vibram soles have saved me from more than one fall on slick, summer-dried grass on hillsides.

Why chance a fall and dropping that brand new pellet rifle? Doesn't take much of a bump to knock your scope off center enough that your rifle no longer hits where you aim. One hunt, on a hot summer day, I was lazy and hunted in smooth-soled running shoes. Rolling hills were covered with slick, dry grass and leaves. Fell three times. Dumb.

Socks:

Wool in winter. Cotton in summer. Thick and comfortable always. Long socks for boots. Pamper your feet for more enjoyable hunt. For that matter, what's wrong with pampering your self all the way?

A friend, young and gung-ho, decided to pellet rifle California ground squirrels in the northern parts of California's Los Padres National Forest, after I took him there and showed him where to hunt. He planned a three day ground squirrel hunt. He only lasted a day and a half. Why? He "roughed" it by hunting all day the first day in the hot, muggy, buggy early summer. By day's end, he was sticky, sweaty, dirty and tired.

He chose to save time by not setting up a comfortable camp, and chose to save money by not renting lodging on adjacent Fort Hunter Liggett. He lasted through the next morning and quit. Too uncomfortable.

In contrast, Tom Jue and I had truly enjoyable multiple day ground squirrel hunts there because we stayed at the Fort Hunter Liggett bachelor/transient officer quarters (nice room with clean bathroom, shared kitchenette, cable TV, etc) and ate at the Fort Hunter Liggett Hacienda restaurant (good food at quite reasonable prices). Thus our focus was on having an enjoyable hunt without the dirt, bugs and chores of camp life. Each morning, we arose early, refreshed, clean and full of energy. Costs more, but it's so much more fun.

Binoculars:

Big, heavy binoculars on a pellet rifle hunt are the mark of a beginner. Good when

scouting from a vehicle, they are too heavy and bulky to carry around. Get a good, light weight, compact binoculars that are comfortable around the neck even on an all-day walk-about hunt. I use an old Bushnell 6x25 binoculars with bright, crisp optics and leave the big 7x50's at home.

Dittos for the spotting scope. The more you carry, the sooner you tire. The sooner you tire, the worse your marksmanship ability becomes (and the less fun you have).

Range finders:

Robert favors Bushnell laser rangefinders. Tom favors Leica's. Note the compact 6x25 Bushnell binoculars that are even more compact than the rangefinder. White paper on the FWB124d is a trajectory chart.

There are two types of range finders. The older split-image optical focus rangefinders. They are cheaper. I've used various models of them for years, but not anymore. Why? Neither my Dad, an extremely experienced and skilled hunter, nor I could get the optical split-image range finders to measure consistently and accurately enough. Avoid them. Go with laser range finders. Faster, more accurate and consistent.

Pellet rifle hunting presents the challenge of short ranges and looping trajectories. Consequently, accurate trajectory plots combined with a good laser range finder is only next in importance on a pellet rifle hunt to the pellet rifle itself. See a pellet rifle hunter with compact binoculars and laser rangefinder/trajectory plot and you are looking at a

"pro".

This gear allows Tom Jue and I to tally around a thousand farm pests a year with our pellet rifles, even though we only hunt about once a month due to work and family, because we have refined our gear and techniques to the extent we have become very effective. Big kill numbers aren't doable with edible small game, but the same methods help there too.

Pellet & accessory belt pouch:

Don't carry your pellets in a pocket. Get a heavy leather accessory belt that is long enough to go on top of your outer clothing. Have a pellet pouch and a small supplies kit on the belt. A cheap, heavy nylon compact camera belt case works well for keeping first aid kit, licenses, an extra tin of pellets, etc. in. The belt camera case I found at my local Wal-Mart was heavy black nylon, about 6" by 4" by 2 ½" and even had a small zippered outside pocket suitable as a pellet pouch.

Years ago, I bought nylon/Velcro pellet belt pouches from Beemans. They still sit at the bottom of my extra supplies chest. They'd keep "automatically" closing at the wrong time and the Velcro was too slow and noisy. Zipper closure for a pellet pouch is better.

To avoid the pellets getting squished when I bump or lean against fences, trees, etc., I cut a small, plastic pill bottle in half lengthwise, and inserted it into the bottom of the pellet pouch. Makes it easier, faster to get a pellet and protects pellets from getting bumped and deformed.

Note the cut plastic pill bottle that holds the pellets in Robert's belt pellet pouch. The pill bottle has been partly pulled out to make it easier to see. This partial pill bottle/pellet container helps prevent pellets getting deformed when accidentally leaning against something during hunting. A zipper opens and closes the pouch to prevent pellets falling out when walking, climbing fences, etc.

Downside is that pellets can fall out easier, when climbing a fence or such, but hey! Just close the pellet pouch with the zipper and that problem is solved. Unlike many pcp's and C02 pellet rifles, almost all springers are single shot. Make reloading as fast and convenient as practical and you will get more critters per hunt.

Walkie talkies (head set):

Head set walkie talkies/two way radios are the way to go. Hands-free, voice-actuated are another mark of the pro when team hunting. Make them small and light weight. Short range is fine. Hunting with a buddy for pellet rifle-suitable small game and varmints isn't something where you need be a mile apart.

However, many headset walkie talkies work better with a baseball style cap than a cowboy style, brimmed hat. I like a wide-brimmed hat to shade me from the sun.

Cell phone?

Bring one if you got one. Especially you married guys with wives that worry. Good for

emergencies too. Safety equipment, assuming you aren't so far into the mountains, the cell phone doesn't work. Tom Jue and I each carry one.

Backpack w/plastic bags

A lightweight day pack, like you see kids wearing to carry their books to school is plenty. All you need is a pack big enough for extra pellets, food & drink, and first aid kit. Bring along plastic grocery bags to carry the small game you get in. Bagging your take keeps the small games' fleas, ticks, lice and any blood off you. Skin and gut rabbits immediately, they taste better, skin easier and the fleas don't jump off the rabbit and on to you as much as when the critter is cold. The bags let you keep the game meat clean. Wearing disposable surgeons' latex rubber gloves when cleaning game is smart. The water bottle in the backpack is for drinking, not washing blood off your hands. Bring paper towels.

A daypack is what I use for hunting within a few miles from the car in vast expanses of public lands. For private farms, the car is always a mile or less away so no daypack. My small camera case "pellet pouch" is enough.

After hunt clean up?

After the hunt, your gear may have gotten a layer of dust on it. While wiping off the stock and metal parts of your rifle takes care of any dust, what about your rifle bore and optics? I clean the bore after every few hundred shots (especially if using the harder, lead alloy cplite pellets which seem to dirty the bore faster than JSB Exacts or other soft lead pellets) or after each hunt if things were dusty.

Go to Office Depot or other computer-related store and buy a spray can of the compressed air that are used to blow dust out of computers. Before using any lenses tissue or soft lenses brush, use the compressed air to blow all the dust off the lenses of your scope, binoculars and range finders. For that matter, Tom Jue usually brings along a compressed air tank to blow any dust off the entire pellet rifle. If that's enough to clean your optics, then don't get out the lens cleaning paper. The less you rub your optics with anything, the less chance of scratching.

For bore cleaning, I've tried various but the best pellet rifle bore cleaning device is Mac1 Airgun's "Crown Saver" flexible cleaning kit. But keep a metal cleaning rod around in case you have a need to tap out a stuck pellet, etc.

Chronograph & Trajectory Plots:

I went starling and ground squirrel varmint hunting with a friend. He used a high quality, high power, pinpoint-accurate, recoilless, fixed barrel, bolt-action .22 caliber pcp pellet rifle, scoped with a nice Swift 8-32x scope. It was a beautiful air rifle, grade 4 walnut

stock, flawless fit and finish, costing over twice the price of a good springer. It could put five Beeman Kodiak domed pellets in a group the size of my thumb nail at 50 yards. I used my cheaper, less accurate, recoiling, break-barrel springer that had less than a third the pcp's power. I used a smaller, lighter, cheaper Swift 4-12x scope.

The hunt ended with my getting far more varmints. I used my Bushnell laser range finder to fix the distance to the critter. Then a glance at my trajectory chart told me the correct hold-over/hold I needed to drop the critter. My friend had sighted in at 30 yards but then just estimated range by eye and guessed at how high or low to hold. I carried along and used a sturdy bipod rest. My friend shot offhand. I seldom missed. He seldom hit.

To make a trajectory chart, use your laser rangefinder to mark distances every ten yards for the more powerful air rifles and every 5 yards for the less powerful. The target is marked with aim points for each distance. For a ten yard zero, zero vertically at 10 yards and horizontally at 30 or 40 yds.

Once zeroed, shoot a five shot group at each distance, from near to far, from a rest, in calm air, without touching the scope elevation and windage adjustment dials. When done, take a ruler or small tape measure and measure how high/low the group's center was from the aim point. This is for hold-over style shooting, but the same idea can be used by "scope clicker" enthusiasts.

My free time is very limited. It takes me about two hours per rifle to zero and trajectory plot. So, I chronograph the air rifle. Then I zero and trajectory plot it. After that, as long as the air rifle's velocity (via periodic chronographing) doesn't change much, the scope doesn't get bumped and all the stock and scope screws don't get loose, that trajectory plot chart should be valid.

A chronograph is a valuable tool to check the health of your air rifle. Here Robert checks the velocity of his FWB124d.

Others use computer-generated trajectory plots, but doing your own makes you know your air rifles performance (and quirks) intimately, increases your confidence and makes you a more effective hunter. What's a quirk? An example. My Beeman R7, when zero'ed laterally at 35 yds, hits ½" right at 10 yds and ¾" left at 60 yds. This info goes on the trajectory chart. My Feinwerkbau FWB124d has no such quirks. Below is a trajectory plot for it, using a Maccari tune kit:

FWB124d

Swift 4x12 40mm @ 12x scope
Mac1-drooped BKL 1 piece scope mount
8.33 gr JSB Exact 4.52 pellets
Beeman pellseated, 856 fps
2-3mph winds
Artillery hold, palm under Forearm screws,
on Gloved, flat, open palm.
10 yds = +0.0”
20 yds = +5/8”
30 yds = +7/8”
40 yds = +1/2”
50 yds = -2/3”
60 yds = -3”
70 yds = -6”
80 yds = -10 2/3”

Shooting small game at 80 yards with my FWB124d? While, given perfect conditions… on the target range, a bench rest, calm air and no coffee nerves, great 80 yard groups are doable, but under normal hunting conditions of wind and improvised field rest (like resting on a fence post), my preferred distance is 50 yards and under.

This distance will differ for each hunter’s gear and skill level. Responsible hunting demands each hunter to “know himself” and his quarry. For example, edible small game require shorter distances and more precise pellet placement. Cottontail rabbits are usually close to a burrow. Drop them in place or you’ve lost them down the burrow. Quail are usually near heavy cover. Drop them in place or they make it into the heavy brush and are lost.

Farm pest varmints like ground squirrels allow a bit more flexibility. If Tom Jue, Galen Jang and I don’t shoot them, the farmer deals with his pest problem via poisoned grain, a slow death requiring multiple feedings and a death taking days. Air rifles are much more humane than poison.

Ground squirrels are not eaten, so as long as the hit is solid and in a critical spot, it’s not important if they make it down their nearby burrow before dead. If the starling flies a short ways before hitting dirt, it’s not a big deal. Mother Nature’s “natural deaths” are much more cruel and you are reducing some farmer’s economic damage and reducing a health hazard to his livestock.

Tools: Spring compressors, gunsmith punches, screwdrivers and misc.

For hunting, what tools do you need? Tom Jue is the most complete and organized air rifle hunter I’ve ever met. Open the trunk of his car and it’s full of neatly organized, labeled cases and boxes. He brings everything short of a spring compressor and work

bench along. In the field, the most common (and fixable) problems for springers are screws working loose (bad for best accuracy and consistent poi). Jue carries screw driver and allen wrench sets which have saved the day on more than one instance.

The alternative to parts and tools kits along for the hunt? A spare air rifle. Have two air rifles along. Rarely will both have problems on the same hunt. But when we have gone on hunts, hundreds of miles away, we bring three or four air rifles along. Switching to a spare air rifle is faster than fixing a broken one.

For a home workshop, have good lighting, a sturdy work bench, and gunsmith screwdriver and punch sets. Both metric and non-metric hex wrench sets. Plastic/hard rubber headed hammer sets. A set of varied and small hobby pliers. A dental probe. Get two gunsmith punch sets, one steel and one of brass punches. Brass is softer but doesn't risk scratching the bluing. A work stand for the airgun you are working on can be as simple as a small cardboard box with a folded towel on top. Latex surgical gloves to keep hands clean and offer some protection against getting cut. Brownell's is a good source for gunsmith tools (www.brownells.com).

Use the right tools. Good lighting, a secure workbench and gunsmith grade tools. Robert

uses a non-metal hammer and a gunsmith punch to remove the Rekord trigger block of one of his Weihrauch/Beeman springers. Note the disposable surgical gloves. Robert buys them by the box at Costco.

Tom Jue does not try to repair his pcp's himself. He sends them to an authorized repair center. Pneumatics are tricky. Spring-powered air rifles are better candidates for owners to repair and maintain, being simpler. Velocity down? With few exceptions, it's the lubes, breech or piston seal, or mainspring.

For steel-spring powered air rifles, a good spring compressor speeds a spring/lubes/seals replacement job and reduces chances of injury to self or gun. Most springers, even at rest, have the mainspring unde enough tension that serious injuries can occur, for the unwary.

I built a "Randy Gunn" spring compressor from plans available online at http://home.comcast.net/~pelletgunn/air.htm. I've yet to see a spring compressor I like better, but regardless, when in doubt, get repairs done by an expert.

Robert's Randy Gunn model spring compressor. Built from plans available at Randy's web site, it's affordable and a valuable tool for experienced "do it yourself" springer owners.

Accuglass bedding a stock?

My Beeman R7, my Weihrauch HW55, my FWB124d and my AirArms TX200 are all Accuglass-bedded, by me. It's not a task for the faint hearted. Do it wrong and you've just permanently bonded your action to the stock. My local gunsmith recommended the thicker version of Accuglass stock bedding compound. The thinner version was cheaper but is more "runny" and is more inclined to spread to where you don't want it, before it hardens.

Before Accuglassing my FWB124d, the best five pellet group I ever got was 1" ctc at 60 yds. After Accuglassing, I got the sub-one inch, five shot, 80 yard groups. With my Beeman R7, before Accuglassing the stock, my best five pellet, 50 yard group was one inch ctc. After? Sub-one inch at 60 yds.

The Weihrauch HW55 used to win target shooting matches at the Olympics, decades ago. It's the finest, most precision spring-powered, break-barrel air rifle Weihrauch ever made. Tom Jue and I are close in shooting skills, him a bit better though. Tom with his HW55 used to beat me and my Beeman R7 on our 50 yard target matches. Now, my R7 beats his HW55 at 60 yards. The HW55 was twice the price of the R7 "budget gun".

Part 3: Hunting technique:

This stuff is not what "Joe Plinker in the Woods" does. It's what Tom Jue, Galen Jang and I do. When we hunt, we want to find game/varmints. When we shoot, we want "one shot/one critter". This takes pre-hunt preparation and practice. Almost all hunting success is determined by pre-hunt preparation.

Before hunt prep:

Air rifle & boots break-in!

It's said, "Break in your hiking boots before going hiking". So true. Five miles from the car is not the time for finding the new boots didn't fit right and now you have blisters ready to break open. Break in those boots, gradually, weeks ahead of the hunt. Avoid low "rock climber" boots that barely rise above your ankles. Go high tops to avoid weed seeds and thistle thorns from getting inside your shoes. Long pants that cover your boot tops help with this. Short pants expose your legs to sunburn, brush and weed scrapes, insect bites and other minor injuries. Go long sleeved shirts of heavy material. Cotton breathes better than synthetic fabrics. Soaks up sweat from your face better too (another use for long sleeves).

Get to know a woman well, before you marry her. Dittos for an air rifle, before you hunt with it. Learn the power curve for your pcp. Steel springers often will change velocity over the first 500 or so shots. Some gain. Some lose. Excess grease burns off. Tight fit parts wear in to a lower friction status. Springs take a set and settle into their long term

power level.

Marksmanship – can't hit the paper, can't hit the critter.

I've heard it said of some guy that "he's not much of a target shot, but he's deadly in the field". Maybe has some merit for powerful firearms, but certainly hogwash for the vastly weaker pellet rifles we hunt with.

I used to think a 2-7x scope was ideal as I'd use 2x with it's wide field of view for running shots and 7x for stationary game shots. In 20 years of using that 2-7x Beeman/Hakko scope on my FWB124d, I never used it at 2x magnification. Why? Simple. To airgun hunt varmints and small game effectively and humanely, shots at running game/varmints had to be avoided.

Robert sighting in/trajectory plotting, something he does every so often to check the accuracy of his trajectory chart. Hunting with a trajectory chart you have confirmed to be on the money is more enjoyable and productive than one which you wonder if is correct. Remember, at 50+ yards, a ground squirrel, feral pigeon or starling's vitals are a very small target. Precision shooting is needed.

The vastly reduced power of most pellet rifles require very precise pellet placement. I was never skilled enough to do precision shooting on moving game. My solution? Switch to 12x magnification, use a rest and pass up moving game shots. Test yourself

with scaled down “running boar” targets for air rifle shooting and leave moving live critters be until you are expert with moving, inanimate targets

The “game eye”.

The slower you hunt, the more you see. Too many times, we’ve not yet shaken off the “city hurry, hurry” attitude when hunting, and we were walking too fast to spot ground squirrels, even at close as 20 yards away, until they spooked and we only saw them as they moved to dive down a burrow or disappear into the weeds.

Don’t look for a whole animal. Look for a head, a tail, a leg or an ear and a beady eye. The rest of the critter being hidden in the weeds. Prey animals in hunted areas are good at keeping an eye out for predators while also being nearly all concealed in vegetation, under timbers in a wood pile, etc. Light weight binoculars, like a quality pair of mini 6x25’s are of surprising help in detecting that almost completely hidden critter, thirty yards ahead.

In “walk-about” hunting, you can’t always spot them before they spot you, but most critters have a “spook distance”. Stay beyond it and they won’t spook, even if they see you. Walk about in your pre-hunt scouting. Don’t just find out where the critters are. Also find out how close they will let you approach before fleeing. Then use a pellet rifle accurate and powerful enough to let you shoot before you violate the animal’s spook distance. Around our location, ground squirrel spook distance for seldom-hunted private farms is about 35 to 40 yards, in and around the farm buildings. It’s 50 to 60 yards for the private lands where the ground squirrels aren’t used to regular human activity. By mid-summer, regularly hunted ground squirrels on public lands are running for their holes at 100 yards. If you can’t do that, better hunt from a blind.

On a hunt, there are times to move fast and times to move slow. Scout an area. Find where the game is and just as importantly, where game isn’t. Hunt game-rich areas very, very slowly. Hunt the game-barren areas at a fast walk. You aren’t trying to hunt the game-barren areas. Waste of time. You are merely passing through to get to a game-richer location.

Game-barren and game-rich areas are found via scouting. Most acreage is game-barren. The idea is to locate the game-abundant pockets. The best way to learn this skill is via getting out and doing it. Make every hunt a scouting session. The more you hunt an area, the more you’ve scouted it. Learn not just where the critters are, also take note of when the critters are out and about. Scout/hunt at different times of the day to learn the “when”.

Large scale farming creates large acreages that can be as wildlife diverse and abundant as a parking lot.

Where to aim on edible small game?

For edible game, especially small game like cottontail rabbits that can vanish into a nearby hole, a solid neck bone shot drops them in place. Everything else is tougher to predict. Head shots can trigger a muscular reflex that can cause the quarry to end up down a close-by burrow. Upper chest hits may or may not anchor the quarry immediately. Anywhere else is not going to drop the quarry in place.

Tom Jue and I are known as small caliber, ultra-low power, 6 ft/lb M.E. “urban hunter” believers. But when it comes to air rifle-legal, edible small game like quail, pheasants, etc., we recommend (1) going hunting with as much power as the location safely allows and (2) larger air rifle calibers, .22 caliber being a popular small game caliber choice.

Pellet rifle hunting authority, Mike Pearson, has done considerable research in hunting tree squirrels. He has tested multiple calibers and pellet shapes. Over the years, Mike Pearson has come to recommend .22 caliber for general air rifle small game hunting, and hollow point pellets like the Beeman Crow Magnum for the shorter, 30 yard or so, distances. Mike has however noted, that while these stopper/shocker hollow point pellets have more knock down power, for longer air rifle distances, round head pellets give greater accuracy.

Where to aim on farm and ranch pests?

Tom Jue and I have more latitude here. Owners of the farm and ranch land we air rifle varmint hunt on, suffer economic and potential health hazards (pest birds pooping in the livestock feed as well as eating the best parts of the feed). Or more crudely put, do you want to eat beef from cattle raised partly on starling, pigeon and ground squirrel droppings?

Area ground squirrels have had occurrences of bubonic plague, etc. So, if we don't shoot them, the owners use the standard slow-death, internal hemorrhaging poisons. Also, these are non-edible pest species.

Consequently, any hit that kills quickly by comparison with poisoning is something we consider. Head, neck and upper chest hits do the job for us, even with our .177 caliber 6 ft/lb "urban hunter" air rifles. In either hunting, we like to team up and try to both hit the same pest critter. Two hits are better than one.

Scouting:

"Scouting" is the job to find a place to hunt. It is two fold work. First, scout to find land to hunt. Second, find where the quarry resides (if at all) on that land. Not much point to getting hunting access on barren land except as a place to do target shooting and plinking.

Public land hunting is more relaxing than private lands hunting because on private lands, there is more need to show the land owner results, knocking down pest populations or sharing your edible game taken. But game or varmint-rich private lands are a better choice for those of you, who like Tom and myself, have limited free time and so try to have productive hunts every time we can get in the field.

Hunting start time (into the field by 5am or arise when the sun is high in the sky?)

Tom Jue and I used to get up at 3:30am for the two hour drive to Los Padres National Forest. We'd arrive at first light so we could set up our "every ten yards" sight-in, trajectory check targets.

Sight-in, trajectory checking would take an hour or two. By then our quarry, the large California ground squirrel colonies, would be active in the morning sun and we'd start hunting. The mornings were calm or near calm. Winds were blowing enough to cause accuracy problems by late morning, so early was better. Also, the ground squirrels had peak activity in the morning and later afternoon. The ground squirrels would mostly nap underground during the hot summer mid-day hours. Much game demands early and late hunting. Cottontail rabbits particularly. Farm pests like feral pigeons though, would usually be out and around in good numbers all day, tapering off towards sun set.

In general, early morning hours are the most enjoyable time to hunt. The day is fresh, new and cool. The game are undisturbed. The air is calmer.

Weather and temperature.

Here it rains, no snow. Rainy weather is almost always a waste of time. Edible small game are not moving around and stay out of sight. Ground squirrels stay underground out of sight. Feral pigeons, starlings, etc. find sheltered roosts and stay pretty well put. Before or after storms is better hunting by far. Tom Jue and I focus our hunting on ground squirrels in the summer months since ground squirrels hibernate in the winter. In the non-summer months, we concentrate on farm pest birds since the birds are active year round here.

When I used to live in northern Utah, winter was about four months long and the best season for pest bird hunting. The snow covered the land and so the pest birds would gather in large numbers at livestock farms where feed stocks were available daily and at the non-clean fill dump outside the town I lived in.

The best hunting days were the clear, sunny, calm, sub-zero days of -20 to -30'F. This was because there in northern Utah's mountains, the humidity was very low and so layering up kept me warm. It was too cold for the snow to melt.

I had no problems with either my old Weihrauch HW35E or FWB124d springers. They knocked the pest birds down, hundreds each winter. Crows, magpies, starlings, English sparrows and feral pigeons. The tough part was riding my bicycle on icy roads safely and keeping a hand warmer going so my cold-numbed, exposed shooting hand, fingertips could still reload the pellet rifle.

Great expectations: How long should a hunt last and how far do you want to drive?

A short hunt is a half day. A medium hunt lasts a full day. A long hunt is any multiple day hunt. Short hunts are fine when it's a short drive to the hunt location. Tom Jue and I do mostly short hunts now. Short hunts are great for busy folks who love to hunt. They allow more frequent hunts and we try to hunt the prime hunting hours of the day, each time. A short hunt, two or three times a month satisfies that craving to get out of the city and enjoy a pellet rifle hunt.

When the drive to a hunting location is two or three hours each way, the hunt should be all day at least. A nap at lunch time helps insure safe driving home. Staying overnight, getting good sleep and returning after a morning hunt is all the better. Drives of hundreds of miles merit multiple day hunts.

Uphill or downhill hunts?

Plan the hunt so the uphill part of the hunt is early while you are fresh or when it's cooler. Downhill for the end of the day when tired or when it's real hot. It's also safer. If you slip and twist an ankle, getting back to the car is easier if your return is downhill.

Solo or buddy hunts? (does the cell phone work out here?)

Tom and I mesh well together and have similar levels of hunting skills. So, we enjoy both the hunt and the comradeship. A good hunting buddy is hard to find, but enhances the hunt. The opposite is when one has invited a guest along. We find we spend much of our effort making sure the guest is having a good time and getting the best hunting opportunities. Hardly relaxing.

The best part about solo hunts is that you can hunt at your own pace, when and where. More relaxing is the plus. More risky if solo hunting in the wilderness. Break your leg in a fall and who are you going to call? Tom and I have found that our cell phones don't work up in the Los Padres National Forest.

Guided hunts?

In northern California, near Tule Lake, just south of the Oregon border, is some world class early spring ground squirrel hunting, on private alfalfa farms. There is a small species of ground squirrels that form extensive colonies, akin to prairie dogs. Populations wax and wane over years like any other species populations, but on a good year, .22 rimfire firearm hunters can use up 500 rounds in a day.

Air rifle hunters can do very well too since in the early Spring up there, the ground squirrels are very active and visible until the alfalfa livestock feed plants grow high enough to hide them. Also, until they have been hunted heavily, the air rifle hunters will find getting 30 yards and closer to multiple ground squirrels at one time is just a matter of walking slow and quiet. Sit for a bit and soon ground squirrels are up and about in air rifle ranges, on all sides.

Our dream is to return to Tule Lake, California for another early spring, guided ground squirrel varmint hunt. I've been twice. Tom's been once. This area was a full day's drive north of Tom Jue and my homes, so we made it a multi-day hunt which is wise since weather can be unpredictable in the early spring and if a local storm blows through at the wrong time, it's good to allow an extra day or two in case of having to feral pigeon hunt while waiting for the next sunny day. Talk to the Tule Lake hunt guide, Frank Pellett (530-667-5177) for more information. Oh how we'd like to go back up there! A four day hunt is about right. Bring a lot of pellets and warm clothes!

On a decent year, ground squirrels are all over the place, particularly after the youngsters are out of the burrows. Be the first hunter to shoot a given private alfalfa field and I've

had these small ground squirrels let me walk openly up within 20 yards. Even spooked, the ground squirrels would pop back up within ten or so minutes. Truly, the most pellet rifle-suitable varmint hunting I've ever had. Mornings were calm, but cold. Afternoons had wind, but the wind was steady and from one direction, unlike the often swirling winds in Los Padres National Forest, so wind drift correction was not a big deal. Watch where the dirt kicked up and adjust for following shots.

Frank Pellett is an unusually effective guide because he is on first name basis with most all the farmers for many miles around, and has access to thousands of acres of prime ground squirrel lands. The daily guide fees are what we'd call "seriously cheap", as in "cheaper than the local budget motels". Why? The whole area is a rural, economically depressed farming area. So, prices are low and few air gun varmint hunters know about this prime hunting area.

Hunters stay in the Pellett's neat, clean, comfortable hunter cabins. Reserve early to get one of the two cabins on their home property because then you only have a 30 foot walk to where you can set up a shooting range to sight in on. Hundreds upon hundreds of acres of nice, flat, open farm fields. Cabins have bunks for four. Bathroom, kitchen with pots, plates, knives, forks, spoons, and TV.

Bring a lot of pellets, and backup pellet rifles, including something lower power suitable for feral pigeon hunting. The Pellett's have guided pellet rifle hunters for years and have gotten Tom and me into private lands where firearm hunters aren't allowed to go.

A public lands game hunting story: quail & rabbits.

A friend in Taiwan flew all the way out to California to go pellet rifle hunting for quail and cottontail rabbits. It's fair to say he is a dedicated air rifle enthusiast and hunter. He has a handful of good air rifles of .177, .20, .22 and .25 calibers. We planned a hunt. Two days for quail and rabbits in the vast public lands of Los Padres National Forest.

We arrived at our Los Padres National Forest hunting area by first light. Beautiful, deciduous acorn-bearing oaks of massive girth dotted the mountain valley floor. A few small streams and springs were in this area. The many acres of massive rocky outcrops and boulders, mixed with trees and brush have always held rabbit and quail. Steep mountain slopes, choked with shoulder-high brush, oak trees lower on the slopes and conifers higher, bordered this half-mile wide, many miles long, mountain valley. Everything looked perfect for a great hunt. How did it go?

Awful. We did not see a single rabbit all day. We encountered several covies of quail, but they spooked at about 75 yards, too far to take a shot at, even with the full power, Maccari-tuned, .25 caliber Webley Patriot (Beeman Kodiak) and certainly too far with the .177 caliber Weihrauch HW55 I carried.

So we used strategy via pincher movements, coordinated via our headset walkie talkies. This worked better, causing one hunter to move quail right to the other. Unfortunately the quail, when they moved, flew instead of the running, so lacking firearm shotguns, we had to pass up the quail flying just left, right and over our heads. Discouraging, so we packed up and left. Non-hunters think hunting is easy. Little do they know. The heavy hunting pressure makes the public lands game animals very smart and wary. Is hunting private lands easier?

Private lands varmint hunt.

This 400 acre ranch in the Salinas Valley of central California had a lot of cattle. Cattle attract ground
squirrels around here and this ranch was no exception. The owner did supplemental feeding and the ground squirrels shared the feeding troughs with the livestock. The mild winter and pleasant spring season had been good for both cows and ground squirrels.

I arrived early morning, a smart move as while the mornings are calm, the afternoons have gusty winds. The eastern sky grew rosy and the morning sun peeped over the distant rolling, grassy hills. Ground squirrels started popping their heads out of their burrows, to my left, to my right, and to my front and back.

This ranch was a great place for ground squirrel hunting because the squirrels were used to the farm workers. The farmers didn't have time to hunt them. So the spook distance averaged only about 35 yards. There were also starlings, blackbirds and feral pigeons, in fair numbers.

Springer air rifles are ideal for this kind of high volume, farm pest hunting. Why? Springers tend to be lower power than most pcp's but that's no handicap on farms where the ranges are shorter. Springers are by nature, quieter than most pcp's and their internal steel coil spring power source is good for thousands of shots between servicing.

For the average farm, a springer of about 12 plus or minus a few ft/lbs Muzzle Energy is pretty much ideal. Plenty of power to take small game and farm pests. Not so much as to significantly limit one's shooting due to safety issues.

The secret of a good hunt is to go where the quarry is. The ground squirrels were out in force. I took careful, deliberate shots off of solid rests like fence posts and concrete feed and water troughs, making each shot count. I shot and shot, and shot some more. By the time the mid-afternoon winds grew to "blow your hat off " level and I called it a day, I'd hunted over a mile, in a zig-zag manner, taking careful, laser range finder-measured, trajectory-plotted shots. Eighty-nine ground squirrels, fourteen feral pigeons and a dozen starlings were not going to eat and poop in the cattles' food anymore.

Conclusion:

What thoughts should dominate your mind when you spot your quarry?

The answer? Easy. Safety. Spot your quarry, set up for the shot. But pass up the shot if people, livestock, vehicles, or occupied structures are in your air rifle's carrying distance, down range. Even if a person is safely beyond your pellet rifle's carrying distance, don't take the shot if it might appear to them that you are aiming their way. After all, they don't know it's only a pellet rifle. This is called "good public relations".

Be sensitive to the livestock's welfare. One farmer was reluctant to let anyone hunt anymore on his land. Why? The farmer had given permission to one hunter who used his firearm shotgun to shoot a bunch of feral pigeons and starlings. The problem? The pest birds were all sitting on a big pile of stored cattle feed so all the lead shot went into the pile of cattle food. This is a no-no as it creates lead-contaminated livestock feed which must be discarded. Tom Jue and I pass up many easy farm pest shots just because the pest critter is sitting in the feed troughs.

Why airguns or "If you like to snow ski, then live on the mountain".

Airguns are ideal for folks who love the shooting sports, but who don't live in the countryside. Tom Jue and I are such folks. We have limited time for recreation. Work and family responsibilities make distance trips and multi-day hunts very difficult. But we still love to shoot and hunt.

Airguns of low power can allow a safe, indoor range at home, so even fifteen minutes of free time allows shooting a couple bull's-eye targets. With airguns, private lands hunting permission is easier to obtain, on lands closer to home. And of course, the cold, rainy winter days make ideal times to tinker, whether tuning, re-finishing a stock, or trying one's hand at checkering.

A good hobby needs to be an activity that is convenient and no long drives are required. Airguns meet those criteria.

Remember, any hobby is to be enjoyed. Even dedicated farm pest hunters like Tom and I take time out to just have fun. Here Tom and I were betting on who could hit the most soda cans, kneeling without any rest, at 80 yards, my AirArms TX200 vs. Tom's. Our friendly rivalry is often the high point of our hunting trip.