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| |  | | --- | | COLUMBIA, S.C. (Jan. 13, 2022) — The S.C. Department of Natural Resources (SCDNR) will host its Annual Wild Quail Management Seminar March 3-4 at the James W. Webb Wildlife Center and Management Area in Hampton County.  The registration fee is $85 per person and includes meals, overnight accommodations and seminar materials. The deadline to register is Monday, Jan. 31. For more information, contact the SCDNR Small Game Program in Columbia at (803) 734-3609, e-mail [**Patty Castine**](mailto:castinep@dnr.sc.gov) or visit [**https://www.dnr.sc.gov/education/quail.html**](https://lnks.gd/l/eyJhbGciOiJIUzI1NiJ9.eyJidWxsZXRpbl9saW5rX2lkIjoxMDAsInVyaSI6ImJwMjpjbGljayIsImJ1bGxldGluX2lkIjoiMjAyMjAxMTMuNTE3MzY3NTEiLCJ1cmwiOiJodHRwczovL3d3dy5kbnIuc2MuZ292L2VkdWNhdGlvbi9xdWFpbC5odG1sP3V0bV9jb250ZW50PSZ1dG1fbWVkaXVtPWVtYWlsJnV0bV9uYW1lPSZ1dG1fc291cmNlPWdvdmRlbGl2ZXJ5JnV0bV90ZXJtPSJ9.EPjcFsTYwMNwkQ-4ahnmR5icpBXuKjb3nKKOg8D_jjY/s/1832916752/br/124825248558-l).  If the seminar is canceled due to COVID-19 concerns, SCDNR will return participants’ checks.  Field demonstrations and classroom instruction will focus on habitat practices including firebreak establishment, prescribed burning, forest management, brush control, discing for native foods and supplemental food patch plantings. Presentations will be given on wild quail natural history, biology, predation and other factors that may be contributing to the population decline. An update on current research will also be presented. Speakers will include wildlife and forestry professionals from state and federal agencies.  Bobwhite quail populations in the Southeast, including South Carolina, have been declining steadily over the past 60 years due to major land use change and reduction in suitable habitat. The Annual Wild Quail Management Seminar is designed to instruct landowners and land managers in the proper techniques of creating habitat that will support native populations of bobwhite quail.  “The annual quail management seminar is a great place to meet and learn from many experts in the natural resources field,” said Michael Hook, SCDNR wildlife biologist and Small Game Project supervisor. “So if you have any interest in creating better habitat for bobwhite quail and the other assorted species that use these early successional habitats, this seminar is for you.”  More than 1,500 people have attended the seminar since its inception in 1987. These sportsmen and sportswomen have positively affected thousands of acres across South Carolina by applying basic techniques to improve habitat on their lands.  COLUMBIA, S.C. (Jan. 13, 2022) — The S.C. Department of Natural Resources (SCDNR) | |

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We call it the “old year’s resolution.”  It combines insights from psychologists and America’s first self-improvement guru, Benjamin Franklin, who pioneered a habit-change model that was way ahead of its time. With the “old year” approach, perhaps you can sidestep the inevitable challenges that come with traditional New Year’s resolutions and achieve lasting, positive change.  **A period to practice – and fail**  [**Research has highlighted**](https://doi.org/10.1159/000324861) two potential pitfalls with New Year’s resolutions.  First, if you lack the confidence to invest in a full-fledged effort, failure to achieve the goal may become a self-fulfilling prophesy. Furthermore, if you maintain the change but perceive progress as unacceptably slow or inadequate, you may abandon the effort.  The old year’s resolution is different. Instead of waiting until January to start trying to change your life, you do a dry run before the New Year begins.  How does that work?  First, identify a change you want to make in your life. Do you want to eat better? Move more? Sock away more savings? Now, with Jan. 1 days away, start living according to your commitment. Track your progress. You might stumble now and then, but here’s the thing: You’re just practicing.  If you’ve ever rehearsed for a play or played scrimmages, you’ve used this kind of low-stakes practice to prepare for the real thing. Such experiences give us permission to fail.  Psychologist [**Carol Dweck**](https://www.penguinrandomhouse.com/books/44330/mindset-by-carol-s-dweck-phd/) and her colleagues [**have shown**](https://doi.org/10.1080/00461520.2012.722805) that when people see failure as the natural result of striving to achieve something challenging, they are more likely to persist to the goal.  However, if people perceive failure as a definitive sign that they are not capable – or even deserving – of success, failure can lead to surrender.  If you become convinced that you cannot achieve a goal, something called “[**learned helplessness**](https://ppc.sas.upenn.edu/sites/default/files/lhtheoryevidence.pdf)” can result, which means you’re likely to abandon the endeavor altogether.  Many of us unintentionally set ourselves up for failure with our New Year’s resolutions. On Jan. 1, we jump right into a new lifestyle and, unsurprisingly, slip, fall, slip again – and eventually never get up.  The old year’s resolution takes the pressure off. It gives you permission to fail and even learn from failure. You can slowly build confidence, while failures become less of a big deal, since they’re all happening before the official “start date” of the resolution.  **A gardener weeding one bed at a time**  Long before he became one of America’s greatest success stories, Franklin devised a method that helped him overcome life’s inevitable failures – and could help you master your old year’s resolutions.  When he was still a young man, Franklin came up with what he called his “bold and arduous project of arriving at moral perfection.” With charming confidence, he set out to master 13 virtues, including temperance, frugality, chastity, industry, order and humility.  In a typically Franklinian move, he applied a little strategy to his efforts, concentrating on one virtue at a time. He likened this approach to that of a gardener who “does not attempt to eradicate all the bad herbs at once, which would exceed his reach and his strength, but works on one of the beds at a time.”  [**In his autobiography**](https://www.gutenberg.org/files/20203/20203-h/20203-h.htm), where he described this project in detail, Franklin did not say that he tied his project to a new year. He also did not give up when he slipped once – or more than once.  “I was surpris’d to find myself so much fuller of faults than I had imagined; but I had the satisfaction of seeing them diminish,” Franklin wrote.  He made his progress visible in a book, where he recorded his slip-ups. [**One page**](https://hdl.huntington.org/digital/collection/p15150coll7/id/107) – perhaps only a hypothetical example – shows 16 of them tied to “temperance” in a single week. (Instead of marking faults, we recommend recording successes in line with [**the work of habit expert B.J. Fogg**](https://time.com/5756833/better-control-emotions-better-habits/), whose research suggests that celebrating victories helps to drive habit change.)  Repeated failures might discourage someone enough to abandon the endeavor altogether. But Franklin kept at it – for years. To Franklin, it was all about perspective: This effort to make himself better was a “project,” and projects take time.  **‘A better and a happier man’**  Many years later, Franklin [**admitted that he never was perfect**](https://www.gutenberg.org/files/20203/20203-h/20203-h.htm), despite his best efforts. His final assessment, however, is worth remembering:  “But, on the whole, tho’ I never arrived at the perfection I had been so ambitious of obtaining, but fell far short of it, yet I was, by the endeavour, a better and a happier man than I otherwise should have been if I had not attempted it.”  Treating self-improvement as a project with no rigid time frame worked for Franklin. In fact, his scheme probably helped him [**succeed wildly in business, science and politics**](https://www.history.com/topics/american-revolution/benjamin-franklin). Importantly, he also found immense personal satisfaction in the endeavor: “This little artifice, with the blessing of God,” [**he wrote**](https://www.gutenberg.org/files/20203/20203-h/20203-h.htm), was the key to “the constant felicity of his life, down to his 79th year, in which this is written.”  You can enjoy the same success Franklin did if you start on your own schedule – now, during the old year – and treat self-improvement not as a goal with a starting date but as an ongoing “project.”  It might also help to remember Franklin’s note to himself on a virtue he called, coincidentally, “Resolution”: “Resolve to perform what you ought; perform without fail what you resolve.”–Mark Canada Executive Vice Chancellor for Academic Affairs, Indiana University Kokomo  Christina Downey, Professor of Psychology, Indiana University | |

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| |  | | --- | | Part 2 of  **Raising Bobwhite Quail for Commercial Use**  **Part 1 can be found in the December 2021 Newsletter or**  **on Web Site under the Newsletter tab, in the December 2021 Newsletter**  **Indoor Breeding –** Indoor breeding allows the use of artificial light to induce preseason and year around egg production. If you prefer this program, a17 hours of light per day is recommended. All night lighting does little to increase egg production. Some producers have found that continuous lighting is helpful in preventing the birds from flying as much and injuring themselves. Generally, artificial lights (to increase day length to 17 hours) are used beginning in December to induce preseason egg production in January. Caution: Never reduce the total amount of light during the laying period. Reducing light time will reduce egg production. If year round production is desire, using a 17 hours of light per day is the simplest procedure. Time clocks are inexpensive and can be used to cut lights on and turn off. To reduce electrical costs, cool white fluorescent bulbs can be used. If fluorescents are used, make sure the light intensity is bright enough to read something at arm’s length.      Continuous egg production or preseason production results in production during the winter when ambient day lengths are shorter. For best egg production results, the breeders need to be penned in an area where the temperature can be controlled. Keep the temperature during the winter at 60 oF or above and during the summer below 85 oF.      Observe the birds closely and keep records. If breeders fail to mate, replace the cock.  Egg fertility is also a method checking mating performance. When quail are paired, this is simple, but in colony breeding it is more difficult o pick out infertile cocks. If an individual hen continually lays soft shelled eggs, replace the hen. But if a number of hens laid soft shelled eggs, contact your feed supplier and arrange to adjust the nutrient profiles in the breeder diet. You may consider topdressing the feed with pullet sized oyster shell as a temporary solution. It is highly recommended that you purchase feed from a reputable supplier rather than trying to mix your feeds yourself.  If your operation is large enough, bulk feed bins rather than using bagged feed is recommended. If using bagged feeds, be sure to store them in a cool, dry environment. This is true for all phases of your operation.  Page 6  **Outdoor Breeding –** Many large producers use abandoned chicken or turkey houses to raise Bobwhite quail. This has proven to be very effective in reducing stress and diseases. However, if you use outdoor breeding pens, it is best to place the open ends facing south for sun and warmth. Also, enclose the area with some type of fencing, preferably wire, for protection from dogs, skunks, weasels, cats, raccoons, and other animals, including humans. You will need to provide some type of covering in scattered areas to allow protection from hot days, to hide, or to lay their eggs. Protect breeders from general disturbances caused by laborers, children, pets, or curious visitors. Any disturbance may cause the birds to injure themselves; injury leads to cannibalism, influences egg production, mating, and fertility.      Visit your birds several times daily to be sure feed and water are present, and to pick up any dead birds. It’s safe to sprinkle a little common salt or Poultry Litter Treatment (PLT) at the site of a dead bird. Lack of either can, and usually does, lead to greater and costlier problems. Remember a penned bird cannot hunt for food and water as nature teaches it to do: you must provide this. The bird, not by choice, is 100 percent dependant on you. And don’t forget increased day lengths by artificial light.  **Pest and Disease Control –** Check the birds regularly for lice or mites. A small dusting box containing sand mixed with an effective insecticide works well. Every time birds are handled, dust them with an insecticide. At present, permethrim dust is effective. Periodic spaying of the birds with the proper concentration of permethrin provides excellent control of external parasites. Insects develop resistance; therefore, check with your county Extension agent as to what is best in your area at the time the insecticide is needed.      Control rodents with anti-coagulant baits, and screen out sparrows or other birds where possible. They can be sources of mites and lice, but also transmit diseases to breeders, frighten the birds (causing injury and lowered production), contaminate them, and eat a lot of feed.  Rodents can be mobile vectors for many types of diseases that can be transmitted to your birds. If you find rodent nest holes in the ground, put bait in the holes and cover them up and mark them. Return the next day, and if the holes have reopen, bait and mark again, and repeat the next day(s) until the holes disappear.      Sanitation is a must throughout your entire program. Clean water troughs daily, water jars at each refill, feeders at least one weekly, and maintain a general cleanup. You will need to keep the surrounding areas of your facilities free of debris, tall grass, and weeds.      Do not store mixed feed for no longer than one month ahead of needs, this includes feeds in bins, or bagged feeds. Longer stored feed may become moldy (producing mycotoxins), lose quality and nutrients, and become harmful to the birds, especially if improperly stored.      Do not allow your labor to raise fowl of any type. They can transmit diseases from their hands or clothes to your birds. This source of disease is often overlooked by quail producers.                                                                                                                                                                  Page 7      Keep visitors out of the breeder pens and areas. For some, this may be hard to do, but it will save you problems in the future. It is recommended that laborers and you, the producer, use disposable booties and clean clothes when visiting different parts of your operation, and foot baths with a disinfectant.  **Egg Production –** The number of eggs per hen will vary, depending on breeder characteristics, breeder selection, and your general management program.      When using artificial lights, remember to never decrease the total hours of light per day during the laying season. If you decide on a 17 hours/day, this means more hours of artificial light when the ambient day lengths are short and less when the day lengths are longer, if you breeders are exposed to natural daylight.      Some of you will constantly exceed the guides mentioned above because of improved birds and your attention to management. It is extremely hard to arrive at a figure to use as a guide in the Bobwhite quail business. More attention to breeder selection results in increased eggs per hen each season. Improved feeds also boost production, and more attention to management add to total production per Bobwhite each year.  **Guide for Number of Eggs per Hen**  Normal mating season (no artificial light) -                          50-100 eggs  Normal mating season (artificial light-17 hrs/day) -             70-150 eggs  Preseason or year round production (17 hrs light/day                                                       or all night lights) -          150-200 + eggs  **Egg Care and Incubation**      You can ruin a perfectly good fertile egg by improper care. Each egg lost is costly since it represents one less bird for sales. Observing the following tips will help you get better quality eggs:  ·      Collect eggs twice daily and three times daily if they are exposed to high temperatures.  ·      Store the fertile eggs with the small pointed end down. If fertile eggs are held more than 3 or 4 days before setting, turn them at least twice daily. Tilt to an opposite slant each time to an approximate 45oangle to prevent yolks from sticking to the shell membranes.  ·      Transfer eggs to a cool, humid storage area. Temperatures of the storage areas should be 55 oF with a relative humidity of 75 percent. Do not use a standard air conditioner (as used in your home) for cooling the eggs. This type conditioner removes moisture from the air; the idea is to add moisture to the air. If necessary, you may want to use a humidifier.  The egg is mostly water; take away this moisture, and the egg dehydrates and becomes worthless.  ·      Do not wash dirty eggs or wipe clean with a damp cloth, or you will remove the natural protective coating of the egg and leave it exposed to entry by bacteria and other     Page 8  organisms. Some discard dirty eggs; however, moderately dirty eggs may be salvaged with some work and care. Remove excessive dirt and dry matter by scraping with sharp blade. Do not use sandpaper as this reduces the integrity of the shell. An egg shell has thousands of microscopic pores that allow oxygen to diffuse into and carbon dioxide to diffuse out of a developing embryo and shell.  ·      Holding eggs for longer than 10 days in storage affects hatchability. Therefore, plan your incubation program so eggs are not stored longer than 10days. Planning ahead saves headaches, frustrations, and money.  ·      Before placing cool, stored eggs into the incubator, allow them to warm to room temperature. Otherwise, the shock of going from 55 to 100 oF can cause sweating and may reduce hatchability.  **Incubation**      Improper adjustment of the incubator and careless egg incubation can ruin all plans. The following pointers may serve as reminders of correct incubation procedures:  ·      Determine the size and type incubator needed for your future quail business. Gamebird equipment suppliers can furnish you with capacities and capabilities of various makes and models. For continuous setting, you need an incubator with a separate hatching unit.  ·      Thoroughly clean and disinfect the incubator and hatcher before each usage. For complete details on egg and incubator sanitation, check with your county Extension agent or Land Grant University Extension Service (Departments of Animal and Poultry Science or Poultry Science).  ·      Constantly check the incubator and hatcher during operation to insure that the temperature and humidity are correct. Correctness of both is essential for a good hatch. The incubator and hatcher should be a room where no major variance in temperature or humidity occurs.      The following is a guide for incubator settings; this only a guide. Follow the manufacturer’s recommendations if they are given for quail. Note the difference in the temperatures listed for still-air and forced-air incubators. Forced-air incubators are those with internal fan air circulation. Still-air incubators usually have very small capacities, up to 50 quail eggs. In these, the thermometer bulb is located near the tops of the eggs without touching them.        Page 9  **Guide for Incubator Settings**  Period of Incubation -                                                            23 days  Incubator temperature (at set) Forced Air -                          99.75 – 100 oF                                                  Still Air -                                 102 oF  Humidity                                   (at set) -                              84 – 86 oF wet bulb                                                    (at pip) -                              90 – 84 oF wet bulb  Wet bulb temperature is measured when a wet wick is attached to on the thermometer bulb.               Piping is when a chick begins to break out of the egg shell.      Initially, following the manufacturer’s recommendation on temperature and humidity setting is very important. After a few hatches you may find you need to vary from the manufacturer’s guide for best results. More Bobwhite quail raisers have problems with humidity than with temperature.      If the incubator has multiple trays, operate it with all trays in position all times (whether with or without eggs) to maintain proper temperature and humidity readings.      For continuous incubation or where trays contain eggs of various stages of incubation, a temperature setting of 100oF and a wet bulb reading of 90oF work satisfactorily.      Move the eggs to the hatcher on the 21st day of incubation. A temperature of 99-100oF and relative humidity of 90-94oF (wet bulb) is recommended for hatching. No turning is practiced after the 19th day. Hatchability of total eggs set should be 75-85 percent.  **Common Causes of Poor Hatchability**  ·      Continuous disturbance of breeders during mating season results in higher percentage of infertile eggs.  ·      Keeping blood line over 3 years may result in problems.  ·      Using eggs from old breeders.  ·      Hen or rooster crippled or deformed results in infertile eggs.  ·      Too many hens per rooster.  ·      Holding eggs in storage too long.  ·      Improperly storing eggs before incubation  ·      Failure to turn eggs.  ·      Not allowing stored egg to reach room temperature before incubating.  ·      Wide variation of temperature during incubation.       Page 10  ﻿  ·      Improper humidity during incubation and particularly during the hatch out period of 21-23 days.  ·      Poor sanitation and failure to clean the hatcher.  ·      Washing eggs.  **Incubation Period for Various Fowl**          **Number of days**  Bobwhite quail                                                      23-24  Japanese quail (Coturnix)                                         17  Pheasant                                                                     28  Chukar partridge                                                    23-24  Wild Turkey                                                           28-30  Mallard duck                                                              28  Muscovy duck                                                        35-37  Goose                                                                      30-34  Guinea Fowl                                                              28  Most Chickens                                                           21 | |

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