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**Federal’s Turkey Load Lineup Explained**

*In the past two years, Federal has completely overhauled its lineup of Premium, high-performance turkey loads in three different, distinct product families.*

Turkeys have a seemingly endless repertoire of baffling tricks. Now, thanks to Federal Premium, hunters have new ammo options to even the odds. In 2018, the company revamped its turkey shotshell lineup with a long list of new products that offer performance benefits beyond any hunter had ever seen. That meant all previously available turkey products from Federal had been replaced by several loads in three product families, including Grand Slam, 3rd Degree and HEAVYWEIGHT TSS. Most recently, Federal added to the HEAVYWEIGHT TSS line up by adding new duplex loads which blends two different sizes of shot to increase overall pellet count. The result is more shot striking the target.

Federal’s new turkey loads are wildly popular with die-hard turkey hunters worldwide, but with the long list of choices available, it’s necessary to understand all the options.

**Straight TSS Loads**

Shotshells loaded with Tungsten Super Shot (TSS) represent a big upgrade from anything previously available, letting hunters kill gobblers farther than they ever thought possible. Payloads of No. 7 or 9 TSS shot provide high pellet counts—in many cases, more than double compared to lead loads of the same weight. The shot’s 18 gram per cubic centimeter density provides optimum energy and the highest velocities at long ranges.

Straight payload offerings include 3-inch 12-gauge loads with 1 3/4 ounces of all No. 7 or No. 9 TSS shot, 3 1/2-inch 12-gauge loads with 2 1/4 ounces of all No. 7 or No. 9 shot, a 3-inch 20-gauge load with 1 1/2 ounces of all No. 7 or No. 9 shot, and a 3-inch .410 load with 13/16 ounce of all No. 9 shot. There’s also a lower-recoil 20-gauge option with 1 ½ ounces of all No. 9 shot pushed at 1,000 fps. The shells come in five-count packs.

The .410 offering might surprise some folks, but Shotshell Product Line Manager Dan Compton said it shouldn’t, as TSS pellets’ incredible density are perfect for sub-gauge shotshells.

“TSS pellets make hunting turkeys with a .410 a very viable option,” he said. “It provides the performance of conventional 12-gauge loads with a significant drop in recoil.”

**New TSS Blended Loads**

New for 2019, blended, duplex shotshells combine No. 7 and No. 9, or No. 8 and No. 10 Tungsten Super Shot into new loads that deliver the extremely high pellet-count patterns some turkey hunters are constantly striving for. In fact, some of the new payloads topping 1,000 pellets in one shell. The two new 12-gauge, 3-1/2 inch TSS Blended options are a 2-1/2 ounce No. 7/9 mix or a 2-1/2 ounce No. 8/10 mix, each at an MSRP of $63.95. The two options of 20 gauge 3 inch loads include a 1-5/8 ounce No. 7/9 mix or a 1-5/8 ounce No. 8/10 mix at an MSRP of $46.95. The shells come in five-count packs.

**3rd Degree with HEAVYWEIGHT TSS**

Turkey hunters are already familiar with the proven concept and performance of 3rd Degree, which uses a three-stage payload that makes you far less likely to miss close turkeys but can still kill birds at 40 to 50 yards with appropriate chokes. Now this revolutionary shell is even better.

New 3rd Degree payloads are comprised of 40 percent No. 7 HEAVYWEIGHT TSS shot, 20 percent No. 6 FLITESTOPPER lead and 40 percent No. 5 Premium lead. The No. 6 lead pellets form a forgiving close-range pattern, the copper-plated No. 5 lead delivers lethal performance at mid-ranges, and the No. 7 TSS pellets allow dense, lethal patterns at 40-plus yards. And the new FLITECONTROL FLEX wad works with ported and non-ported chokes to maximize the characteristics of each shot type, opening from the rear and staying with the shot column longer than conventional wads to deliver full, consistent patterns.

3rd Degree HEAVYWEIGHT TSS loads include a 1 1/2-ounce, 3-inch 20-gauge; a 1 ¾-ounce, 3-inch 12-gauge; and a 2-ounce, 3 1/2-inch 12-gauge—all with 5, 6 and 7 shot. The shells come in five-count packs.

**Grand Slam**

New Grand Slam shotshells extend the range and lethality of conventional turkey payloads, putting as many pellets as possible in a 10-inch circle without breaking the bank. Federal Premium engineers wanted a shell that performed comparably to other high-end lead offerings while maintaining the former Mag-Shok price point.

Grand Slam shells use high-quality copper-plated lead pellets that produce dense patterns and ample energy. The shot is delivered via the FLITECONTROL FLEX wad, which opens from the rear and allows a controlled release of the load, resulting in thick, even patterns through standard and ported chokes. Also, buffering prevents pellet deformation for more consistent patterns.

Offerings include a 3-inch 20-gauge load with 1 5/16 ounces of No. 5 shot; a 3 1/2-inch 10-gauge load with 2 ounces of No. 4 or 5 shot; a 2 3/4-inch 12-gauge load with 1 1/2 ounces of No. 5 shot; a 3-inch 12-gauge load with 1 3/4 ounces of 4, 5 or 6 shot; and a 3 1/2-inch 12-gauge load with 2 ounces of 4, 5 or 6 shot. Grand Slam is available in 10-count packs.

**FLITECONTROL FLEX Wad**

All of the new offerings use the full-length FLITECONTROL FLEX wad, which was introduced with the launch of Federal Premium’s redesigned Black Cloud waterfowl shotshells. The wad’s unique design improves pattern density and consistency when fired through ported and non-ported chokes.

“The wad’s redesigned rear-deploying brake fins and side-mounted vents stimulate the payload for separation from the wad at precisely the right moment for the densest, most consistent patterns possible,” said Dan Compton, Shotshell Product Line Manager.

To do this, Federal Premium engineers beefed up the wad’s brake system, starting by reinforcing the wad’s flexible rear fins with sturdy supportive gussets.

“We rely on gas pressure from inside the barrel to flex the fins and open them, which triggers the shot to separate from the wad,” Compton said. “If there’s not enough pressure, the wad doesn’t slow down enough for optimum separation.”

Such pressure problems are common with ported choke tubes, which vent gas to the sides before it leaves the muzzle. However, the new FLITECONTROL FLEX wad’s improved rear-deploying brake fins eliminate that concern with all chokes.

“The brake fins open, so payloads separate exactly when they’re supposed to, regardless of the gas pressure behind them,” Compton said.

**Other Components**

Grand Slam and HEAVYWEIGHT TSS loads also use buffered shot and a roll crimp to further boost effectiveness.

“Buffer evenly distributes the ignition force throughout the payload, allowing for uniform separation of the shot at muzzle exit,” said Federal Premium Shotshell Engineer Adam Moser. “Buffering lead shot also helps reduce pellet deformation caused by ignition forces.”

The roll crimp, meanwhile, provides uniform compression of the buffered payload, which generates consistent ballistics and better pattern efficiency, Moser added. Combined with a clear plastic card wad, it also ensures that the entire buffer remains sealed inside the cartridge.

All of the new 12- and 20-gauge loads also feature improved hull printing with a special touch any turkey hunter will appreciate when admiring a gobbler they’ve just shot.

“There is a small tape measure graphic, in 1/8-inch increments, printed on the hull,” he said. “Hunters can measure their spurs in the field with the hull to photograph and show their friends and share on social media.”

Moser added that Federal Premium has also invested in improved shell-printing technology that offers much cleaner, crisper and longer-lasting printing, so it’s easier to identify your shotshells.

**Tungsten Super Shot (TSS)**

TSS is an incredibly dense shot that has taken the handloading world by storm in recent years, and it’s an integral part of Federal Premium’s HEAVYWEIGHT TSS and 3rd Degree loads. The material is more than 20 percent denser than Federal Premium’s previous HEAVYWEIGHT shot, which has a density of about 15 grams per cubic centimeter. Further, it’s 56 percent denser than lead.

“TSS is an alloy comprised primarily of tungsten,” Moser said. “It has a density of 18 grams per cubic centimeter and is harder than steel. The increased density retains velocity, and the hardness prevents pellet deformation, which improves pattern efficiency and penetration.”

Compton explained the physics behind the material’s effectiveness.

“An object with higher density will maintain its energy longer in flight than a less-dense object,” he said. “In pellets, the increased density will extend the lethal range of the payload. Denser pellets fly farther and penetrate deeper.”

But the advantages don’t stop there. Because of its increased density, you can use a smaller TSS pellet to deliver the same amount of energy of much larger lead shot.

“A No. 9 HEAVYWEIGHT TSS pellet carries at least as much penetration energy as a No. 5 lead pellet at all ranges,” Compton said. “This means you can greatly increase the pellet count of a payload by using a smaller shot size, but penetrate as much or more because of the increased density. Overall patterns densities are increased, so there are more hits on the target.”

Moser said a 13/16-ounce load of No. 9 TSS has about 295 pellets, and a 1 1/8-ounce load carries about 408 pellets. For comparison, a 2-ounce load of No. 4 lead has only about 270 pellets.

Heavier TSS payloads carry more astonishing, approximate numbers. A 1 1/2-ounce load of No. 7 TSS has 282 pellets, and 1 3/4- and 2 1/4-ounce loads have 330 and 423 pellets, respectively. With No. 9 shot, a 1 3/4-ounce load has 635 pellets, and a 2 1/4-ounce load features a whopping 814 pellets.

Of course, such swarms of shot result in improved patterns. Testing conducted at Federal Premium’s factory proved a 3-inch 12-gauge load with 1 3/4 ounces of No. 5 lead shot will place about 100 to 130 pellets in a 10-inch circle at 40 yards. However, a 3-inch 12-gauge load with 1 3/4 ounces of No. 7 TSS shot will put about 200 hits in a 10-inch circle at 40 steps, and an equivalent load of No. 9 TSS shot will tally about 350 hits.

Plus, downrange penetration is far better with TSS compared to larger lead pellets.

“By comparison, No. 7 and No. 9 TSS pellets retain more downrange velocity than a No. 5 lead pellet with the same muzzle velocity,” Moser said. “Greater downrange velocity, increased density and the smaller surface area of TSS pellets lead to more penetration energy at all ranges.”

**Better Loads for a New Season**

With turkey numbers in great shape throughout much of the country, hunters anticipate a memorable 2018 season. Now, they can go afield knowing that Federal Premium’s new turkey loads will deliver consistently devastating performance, letting them enjoy every heart-pounding moment instead of worrying about their ammunition.

A portion of all proceeds from each and every one of Federal’s Premium lines of turkey loads is donated to the National Wild Turkey Federation (NWTF).

For more information on the loads mentioned in this article and all other products from Federal ammunition, visit: [www.federalpremium.com](http://www.federalpremium.com).

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