




**DUCK
 PRODUCTION**
 2021 STATUS UPDATE



Delta Waterfowl Delivers Breakthrough Results

Hen Houses and Predator Management continue to add ducks to the fall flight

Every experienced waterfowl hunter knows the feeling.

You're standing at the boat launch in the dark. The cold stings your cheeks. By the light of the moon and stars, you can see a sheath of ice covers the landing and the channel leading to the main body of water. But beyond, you can also see the reflection of open water in the marsh. That's where the reward awaits. It's just a matter of breaking through to reach success.

Late last winter and in the early spring, Delta Waterfowl felt that same

queasiness as it looked ahead to the upcoming nesting season for ducks in the prairie pothole region. The channel seemed frozen with unexpected obsta-


**DELTA'S PROVEN INTENSIVE
 MANAGEMENT PROGRAMS
 PRODUCE DUCKS.**

cles. Drought. COVID-19 restrictions and closures. An early thaw in the prairie potholes cut short the normal



**Delta Waterfowl
 measures success
 by the ability to put
 MORE DUCKS INTO
 THE FALL FLIGHT.**

routine of Hen House installation and maintenance. Supply chain disruptions. And more.

Undaunted, Delta launched its carefully planned duck production efforts. In the end, 2021 resulted in important breakthroughs in waterfowl research, Hen Houses, and especially, Predator Management.

Predator Management

In 2021, Delta operated 26 Predator Management sites — 23 in North Dakota and three in Manitoba. As Delta has proven for decades, managing key nest predators such as skunks and raccoons in areas of high nest density once again boosted nest success in trapped blocks compared to untrapped control blocks.

Studied by Delta since 1994, Predator Management has proven to be the most cost-effective way to increase nest success, which is the most important factor in duck production, especially in dry years such as we experienced in 2021. Each season, Delta hires professional trappers to target key predator species in carefully selected habitats, resulting in tens of thousands of ducks added to the fall flight.

The 2021 nesting season was especially significant as Delta continued its data collection on “hotspot trapping” and block trapping methods. Both provided strong results on which to build additional research and broadened implementation.

Hotspot trapping strategy focuses efforts on patches of cover within areas

containing high numbers of breeding ducks rather than trapping the entire, traditional township-sized block — an area comprising about 23,000 acres. Trapping can also benefit over-water nesting species such as canvasbacks and redheads. In this strategy, traps are placed on wetland edges and in predator travel corridors among wetland complexes in which these birds nest.

Data collected in 2021 on both methods shows strong positive results. (See sidebar.)

Delta believes that continued refinement of trapping strategies can make Predator Management an even more effective and cost-efficient tool to put more ducks over your decoys each season.



90%
of failed duck
nests are lost
to predators.
Predator
Management
boosts nest
success!

Hen Houses

Despite the obstacles leading to and during the 2021 waterfowl nesting seasons in the PPR, Delta’s Hen House program grew and laid groundwork for expansion. Delta has more than 9,000 Hen Houses, most of them deployed in key breeding areas of Manitoba, Saskatchewan, Alberta, Ontario, North Dakota, Minnesota and Iowa. With these structures, we’re continually working to add even more mallards to the flight each fall.

In preparation for the 2021 nesting season, Delta added 150 Hen Houses in Manitoba. Despite an early thaw that pushed installations later than usual, all were placed in key habitats. The installation and maintenance season also saw full utilization of new technology in the QuickCapture app. The app allows automated transmission of location and real-time usage information for each Hen House. Mike Buxton, waterfowl programs manager, customized versions of the technology platform for use by both Delta’s Hen House delivery specialists and contract trappers.

Based on generous donations and successful grant applications, Delta is committed to installing another 650 nesting structures in the winter of 2021-2022. Plans call for 250 Hen Houses added in Manitoba, 200 in Alberta and 200 in North Dakota.

Difficult supply chain issues have made Hen House components extremely challenging to acquire. However, enough materials were secured and delivered to allow student technicians at the Delta Marsh and independent contractors to complete the structures required for the upcoming winter installations.



2021 STUDIES SHOW PROMISING RESULTS

Delta Waterfowl continues to refine Predator Management through research.

During the 2021 nesting season, Delta students conducted studies on the effectiveness of removing predators to increase nest success. In North Dakota, nest success was monitored on five sites. On two of them, “hotspot trapping” was conducted, while two other sites were trapped as township-sized blocks. The final site served as an untrapped control block.

The results were dramatic. On the hotspot sites, 46.1 percent of nests hatched, while 42.2 percent of nests on block-trapped sites were successful. By comparison, only 13.7 percent of nests on the untrapped block hatched. So, Predator Management resulted in a nearly four-fold increase in ducks produced in North Dakota.

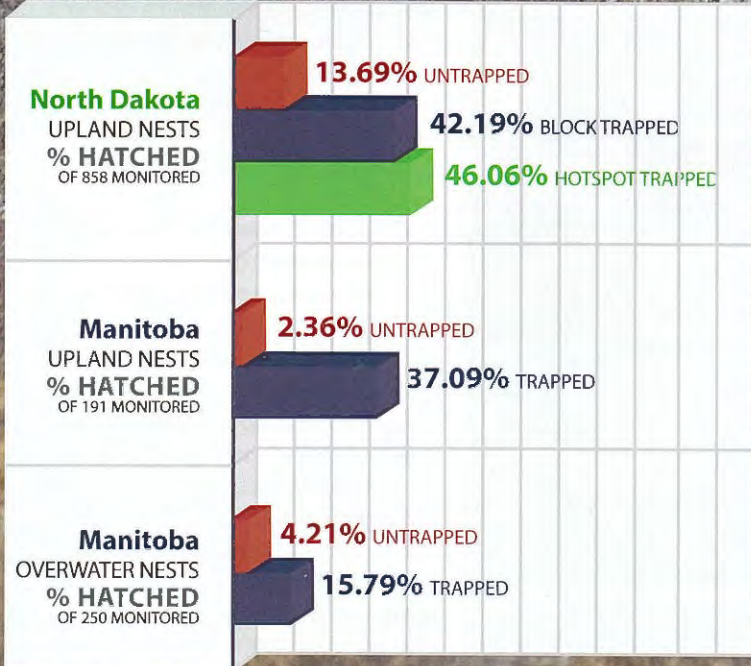
Of the 858 nests monitored, nearly half were blue-winged teal, while about a quarter of them were gadwalls. Mallards, pintails and shovelers made up most of the rest of the nests found on the study sites in North Dakota.

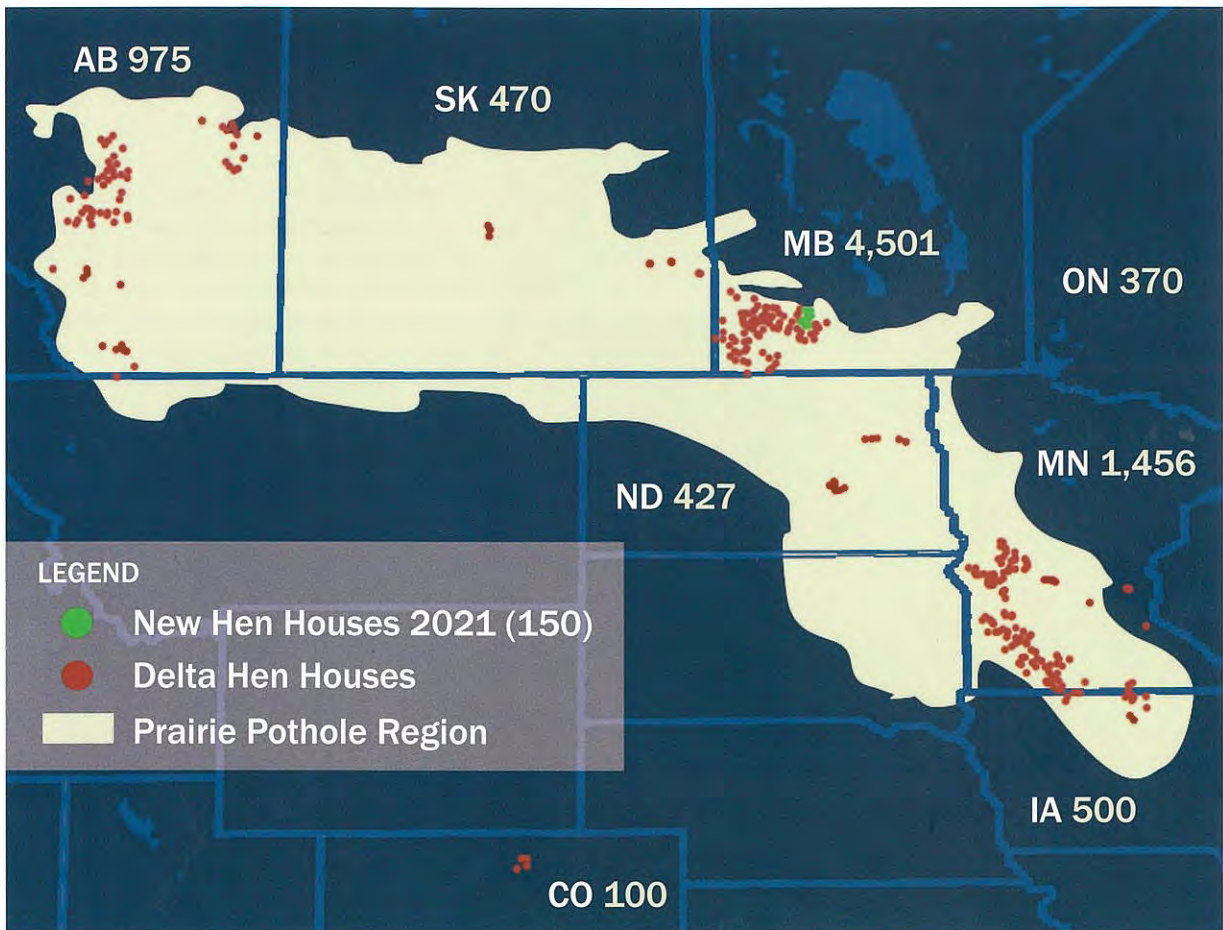
The Manitoba study included six sites — three trapped and three untrapped. A total of 441 nests were found, including 92 canvasback nests. The Manitoba research monitored nests found in upland grassy areas, as well as over-water nests such as those made by canvasbacks, redheads, ring-necked ducks and ruddy ducks. Mallard nests were found both in upland grass and over the water.

The effect of removing predators proved even more stark in Manitoba. For upland nests, 37.1 percent of nests hatched on trapped blocks, compared to only 2.4 percent on the untrapped sites. Meanwhile, over-water nesting ducks hatched 15.7 percent of nests on trapped sites, versus 4.2 percent on untrapped blocks.

The result? More canvasbacks, mallards, teal, pintails and other ducks are headed south this fall.

2021 NEST SUCCESS





Hen House usage data is collected during annual spring maintenance of the structures, so it reveals what happened during the previous breeding season. According to Matt Chouinard, senior waterfowl programs manager, Hen House usage across the PPR varied in 2020. Manitoba and Saskatchewan were very dry, so Hen Houses there were lightly used as ducks do not occupy structures in dry wetlands. However, 2020 breeding season usage in parts of Alberta, Minnesota and North Dakota was strong, ranging from 60 to as much as 90 percent.

With poor water conditions reported throughout the core of the PPR in the United States and Canada, it's anticipated that Hen House usage was lower for the 2021 breeding season. However, the data will be gathered as maintenance takes place on the structures this upcoming winter.

Delta Hen Houses remain a highly effective and cost-efficient tool for maximizing mallard populations.



A mallard using a Delta Hen House is up to **12 TIMES MORE LIKELY TO HATCH** a nest than a mallard nesting in the grass.

Research shows that a mallard hen using a Delta Hen House is up to 12 times more likely to hatch its eggs than another hen nesting in the nearby grassy uplands. In many areas, nest success in Hen Houses ranges from 60 to 90 percent, compared with less than 10 percent for mallards in traditional upland cover.

Producing Ducks

The characteristic that sets The Duck Hunters Organization apart from any other conservation organization is how it measures success. It's not in wetlands. It's not in acres.

It is in cost-efficient, effective duck production. Put most simply, success is measured in putting ducks into the fall flight.

So, despite the obstacles and challenges, 2021 was another historic year for Delta Waterfowl's duck production efforts.