

Shelbourne

REYNOLDS



Stripper Headers

INCREASING HARVESTING
PRODUCTIVITY THIS YEAR
AND IMPROVING MOISTURE
CONDITIONS NEXT.

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Product History

The stripper header was originally conceived by Keith Shelbourne in the mid eighties as a derivative of the rotary head fitted to the companies pea harvesters.

The idea was simple, design a selective stripping head to reduce the amount of material being taken into the combine. Despite the simplicity of the concept in the early eighties it was not until 1987 that a prototype machine actually looked like working successfully. The first models were put on the market in the UK in 1989 and continual design enhancements have led to steady sales growth since.

The basic concept of the stripper header is that a rearwards rotating rotor fitted in the front of the header is fitted with 8 rows of stainless steel stripping fingers that strip grain from the crop as the combine moves the head forwards while it spins backwards. The speed of the rotor can be varied according to crop conditions.

After the grain has been stripped by the rotor a series of deflectors within the header deflect the grain back into a conventional auger and pan. This auger then moves the material to the centre where it enters the feederhouse of the combine. 85% of the grain is threshed by the header meaning that the material entering the combine is predominantly grain, chaff, leaf and minimal straw. The benefit of this reduced bulk entering the combine is significantly improved capacity and efficiency.

UK farmers initially appreciated the benefits of additional combine capacity and simply burnt the standing straw afterwards, however the UK governments subsequent ban on straw burning meant that the harvesting benefits of using a stripper header then had to be weighed against the cost of getting rid of the straw. We started to look at export opportunities at this time and found a strong demand from wheat farmers in Kentucky and Eastern USA. The stripper header provided the benefit of an early, high moisture fast wheat harvest and the subsequent stripped straw provided an ideal No-Till environment for double crop soya beans. Machines were subsequently sold in the Mississippi Delta rice growing region for harvesting rice as well as the Kansas prairie wheat fields for salvaging hail damaged crops. The subsequent introduction of wider machines from 28 feet to 32 feet and now to 42 feet have added to the mainstream appeal of stripper headers as a commercial harvesting tool.

Many farmers in low rainfall areas have utilised the moisture retention benefits of stripped straw in their no-till farming systems.

Neil Smith.
Sales and Marketing Director

Design

Designing a machine is not a simple operation.

We consider many factors, but ultimately we must design our products to meet customer demands. We tend to be customer-led in our approach, and welcome feedback on how we do things.

Our design team is based in our Stanton factory, and is made up of seven full-time engineers, each of whom works on specific products. These engineers are also product specialists, and are well placed to answer customer queries on machines bearing in mind that they designed the machine in the first place.

The team works on new machine concepts, modifications and changes to specifications, generates all parts books and operator manuals, plus works closely with the sales, parts and service teams to ensure what when we design a machine it is backed up, and that any customer input is taken on board.



The design team supply our modern manufacturing facility with all information, whether in the form of drawings or directly to state-of-the-art laser cutting and CNC machines. All of our design engineers have an agricultural or manufacturing background, ensuring that they understand the requirements you have for a machine. A rigorous product development program involves moving experimental headers around the world from Australia to the USA to get maximum field test time and to accelerate product development when possible. Everything is field tested from both a performance and durability standpoint.

Manufacturing

Manufacturing is based in Stanton, near Bury St Edmunds, Suffolk. Approximately 80 miles North of London. In our 90,000 square foot (8,400 square metre) factory we employ over 100 people, with an average employment duration of over 12 years.

We carry out high standard manufacturing with modern equipment such as laser cutters and CNC machines, plus have our own powder coating paint plant to ensure a high quality finish to every machine that leaves to be delivered to our dealers or customers.

Our manufacturing facility is closely linked to our design office to ensure any changes to machines are made when specifications are changed, with feedback to ensure that these are possible. Most metal panels are laser cut and then bent in-house, and we retain the majority of welding in-house to retain quality. We even



manufacture complete gearboxes for our stripper headers to ensure that they are to our exact standards. Before delivery, however, comes inspection. All machines are fully assembled, built up and tested prior to delivery, meaning that they are ready to go to work once on farm. All stripper headers are run up to full operating speed on a test rig prior to dispatch.

What this means for our customers is that each Shelbourne machine that leaves our factory will be ready for work, and this reduces hassle for the dealer and customer.

Support

Unless we can back up a machine, it is of little use to our customers.

This is why we hold great significance in ensuring that we can support our machines where it matters – in the field. Whether through technical support over the phone, from supplying parts or from servicing on-farm, our backup service is key.

In order to ensure first class product support we established our parts and sales distribution center in Colby Kansas in 1996. This is our US headquarters for both parts distribution and field support.

As a customer-motivated company, we offer excellent support during office hours where there is always someone who can answer your query, plus an out-of-hours service for emergency contact if required.

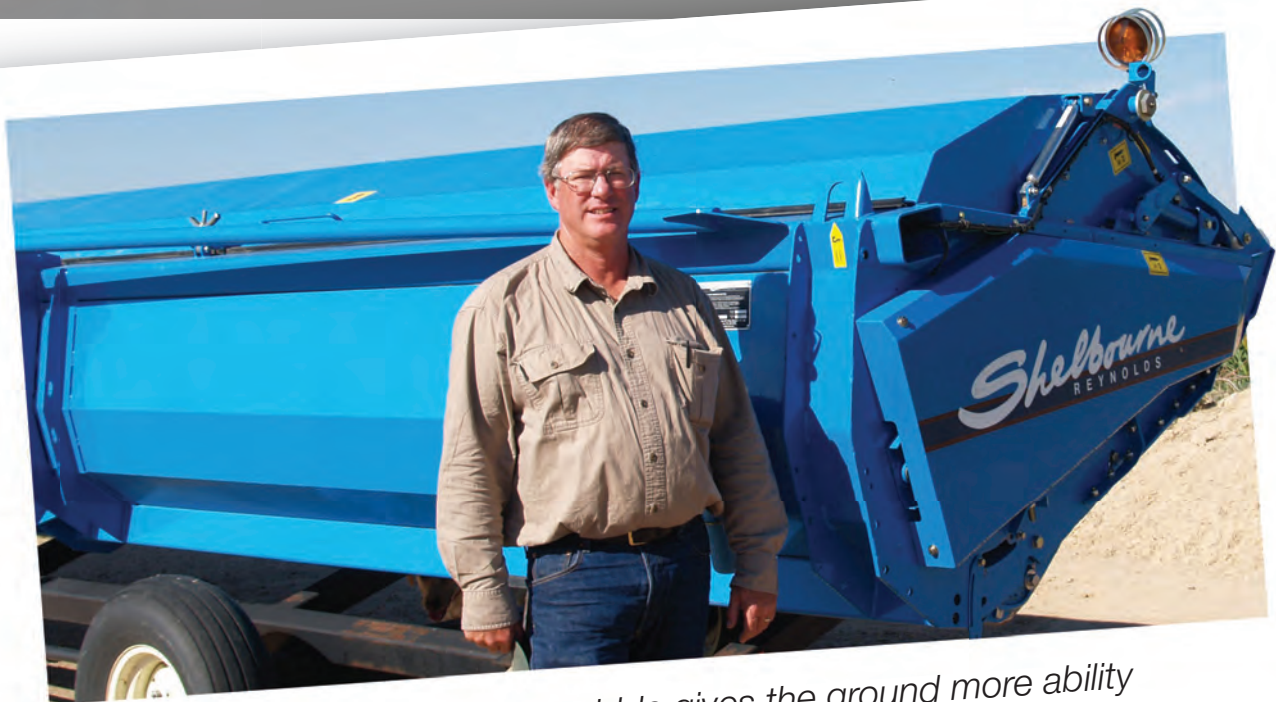


Our product specialists work with our service and parts teams to ensure that your Shelbourne machine is up and running as soon as possible, as we know breakdowns costs money and time, and ultimately we realise that as a professional company selling to professional users, downtime is not an option.



David Wagers

WOODROW, COLORADO, USA (CVS28)



"I feel like the standing stubble gives the ground more ability to retain moisture"

For David Wagers, it just makes economic sense to use farming practices that stretch the meager rainfall eastern Colorado receives on an annual basis.

The current seven years of drought the area is experiencing has reinforced an article he read several years ago. The author of that article speculated that the 15 inches of rainfall Eastern Colorado has averaged from the 1950s through the 1990s is really abnormally wet for the area and the current drought is the more normal rainfall pattern.

"If that's true, there is even more reason to make moisture conservation a high priority", he said.

Using no-till and summer fallow, Wagers has been able to continue growing crops during what has been seven bone-dry years for his Woodrow, Colo., farm. A large part of that success he attributes to the standing straw left by his Shelbourne stripper header.

"I feel like the standing stubble gives the ground more ability to retain moisture," David said. "It shades the ground more, lasts longer (than shorter stubble) and keeps the wind off the crop growing in the stubble, which also helps retain the moisture.

The taller stubble also captures more snow. Typically a lot of our moisture is from snowfall and snow melt. It's all economics to try and save the moisture."

Wagers owns and operates 5,000 acres, which is typically planted one-third wheat, one-third in a fall crop - either corn or millet, and one-third summer fallow. A large percentage of his wheat is raised for certified seed wheat. All of his acreage is dryland, making moisture conservation even more important. His current rotation is wheat, corn, summer fallow, followed by wheat, millet, summer fallow. He is trying to move to a four-year rotation of wheat, corn, millet, summer fallow to squeeze in one more crop year.

"I'd like to get 66-70 percent of the ground in production. Summer fallow is too expensive," Wagers said, adding, "however, that without it you couldn't grow wheat in eastern Colorado."

To achieve that third crop in his rotation, Wagers is doing everything he can to conserve and effectively utilize available moisture.

“Stripped straw makes economic sense in several ways in addition to the benefits of retaining straw moisture, which translates to several more bushels of wheat raised per acre”

Wagers has been using no-till since the fall of 1986 and says that it has helped boost his productivity and controls operating costs. He purchased his first Shelbourne stripper header in the mid-1990s and is currently running a CVS 28 purchased from 21ST Century Equipment in Fort Morgan on a John Deere 9660. He is a believer in the benefits of the longer straw for his no-till farming operation.

“Economically it makes sense in several ways in addition to the benefits of retaining soil moisture, which translates to several more bushels of wheat raised per acre,” Wagers said.

The taller stubble also pays off by:

Increasing standing residue on the field. The taller straw lasts longer than conventionally cut straw, protecting the soil from erosion and capturing more snow, which has traditionally provided a large percentage of moisture for growing crops. Increased productivity and lower input costs by using less fuel per acre to harvest and plant, less wear and tear on the combine and the ability to harvest more bushels per hour.

Providing a recreational benefit with habitat for wildlife by providing more nesting for pheasant and quail. In addition, the Colorado Division of Wildlife has a walk-in hunting program which pays farmers who have standing stubble more than 15-inches tall to post the field as a hunting area. Wagers is also able to participate in the Conservation Security Program which pays \$1.50 to \$2 per acre if conservation practices are utilized. No-till, plus the added bonus of taller straw, increases the payment which is determined by how many conservation practices are used. This program is limited at the moment and is being implemented by watershed districts, with Wagers' Beaver Creek Watershed District one of the first picked for the two-year-old program. However, Wagers believes the program will continue to grow and expand into other areas.

Wagers says, “In a time when controlling costs can mean the difference between profit and loss, I believe the benefits of no-till in fuel savings and time across the field are obvious”.

The taller straw also plays a role in a new moisture utilization practice he's experimenting with – skip row planting in his dryland corn and a grain sorghum field. Early tests indicate skip row planting may give spring crops a better chance to withstand a prolonged drought.



“Economically it makes sense in several ways in addition to the benefits of retaining soil moisture, which translates to several more bushels of wheat raised per acre”

Wagers is currently planting his corn in two rows with 30-inch centers and a 90-inch gap between each two-row set. His 2006 grain sorghum was planted with a 60-inch gap. Both crops were planted into standing stripped wheat stubble and, in late August 2006, were tolerating the drought stress well. The standing stubble between the rows protects it from drying out until the plant roots grow into the moisture zone and has an added benefit by protecting the young plant from wind – both of which give the plant a better start.

“The wind protection can be a negative,” Wagers said. If there is a cold night after the corn emerges, the lack of air movement allows the cold air to settle in the straw resulting in occasional freeze damage. But, that also indicates how the taller straw cuts down on moisture loss resulting from that same air movement.

The Wagers family has been on the forefront of conservation practices since his grandfather was the first in the county to experiment with summer fallow practices in the early 1930s. The family has worked closely with Extension and USDA research facilities in piloting new farming practices in the region. David Wagers knows the critical importance of stretching every inch of rainfall and he is convinced that the advantage in moisture retention provided by stripped wheat stubble has made the difference between growing a crop or not.





Ed Getz

HOXIE, KANSAS, USA (CVS32)



“The Shelbourne people call every year during wheat harvest and see how I’m doing and if there are any problems”

Sometimes the best teacher is a bad experience. It’s taken seven years of drought for Ed Getz, of Hoxie, Kan., to realize just how valuable wheat stubble – especially stripped wheat stubble – can be in his dry-land, no-till rotation.

Getz’s farm operation is split 2/3 dryland to 1/3 irrigated. For the past few years as the drought has worn on, Getz has tinkered with his dryland rotation, trying to find the right economic mix. Traditionally, he had planted 1/3 wheat, 1/3 dryland corn and left 1/3 of his dryland acres in chem-fallow. But, the low market price of wheat and the payback on crop insurance for corn led him to plant only corn for the past three years. He found that corn was tolerating drought even better than milo, a traditional low-moisture crop.

The results, however, have not been positive for crop yields or the bank account. This past summer – even before the price of wheat improved significantly – Getz was planning to put wheat back into his rotation, for the straw.

“The wheat is a byproduct. We want the straw to put the corn back into it,” Getz said in explaining his decision. “A significant number of people will agree with me. If you had to pay off ground in this part of the country with wheat, you’d have to raise a lot of it. The economics aren’t there. But, we need that straw to save moisture for the corn.”

"I would never go back to conventional headers"

Getz has had a 100 percent no-till operation since 1994, though he does strip-till some irrigated corn acres. The decision to go no-till was economic. It meant less machinery and lower overhead and input cost. He also believed that it would help conserve moisture on his farm, which historically receives about 18 inches of precipitation per year. He began using a Shelbourne CX84 28-foot stripper header in 2000 because of its straw height advantage.

"We were going back in to corn stalks with wheat. The no-till wheat tended to be shorter and, with a conventional header, the straw was short. I thought the taller stripped straw would give some benefit by trapping more snow and retaining the moisture better," Getz said.

He has since upgraded his CX84 to a CVS32 and runs it on a Case 7088 both supplied by Hoxie Implement. Maintenance on the header has been minimal. There had been a problem with the header's first set of teeth, but Getz said, the Shelbourne people changed out that set and it has run problem-free since then.

Getz appreciates the support he has had from Shelbourne and his local dealership.

"The Shelbourne people call every year during wheat harvest and see how I'm doing and if there are any problems," Getz said. "It's not like you bought (the header), they got your cash and said goodbye."

Getz uses a 16-row John Deere no-till planter and a Great Plains no-till drill. He believes that using a stripper header is the only way to go in a no-till operation because of the ease of planting back into the straw. He speaks from experience about the benefits of planting into stripped straw over straw that has been conventionally cut. Again, a lot can be learned from a bad experience.

"The last year I cut wheat with a conventional header, the wheat made 80 bushel to the acre and the straw was so heavy my combine couldn't spread it out. I had heavy streaks of straw through the field. You could see for two years after that where that heavy straw had been. I just couldn't get a good stand through it. That wouldn't have happened with a stripper," Getz said. "I would never go back to conventional headers or conventional tillage – even if I could afford the equipment costs to do it."

Planting in stripped straw is preferable to conventionally cut stubble in nearly every instance, Getz believes, because the straw



"You can get over so many more acres with a Shelbourne"

is attached to the ground and the planter simply flows through it. In a conventionally cut field, the loose straw tends to drag on the planter.

Getz believes that problems from eliminating the wheat rotation, and missing out on the moisture-retaining benefits of the taller stripped straw, have become more evident with declining corn yields each year the drought continued. The 2006 dryland crop was showing serious drought stress as it neared harvest in late August. However, a field of corn planted behind his house clearly showed what can happen when there is sufficient residue to catch moisture.

A cedar hedge separates his back yard from the corn field behind his house. The area had a late snow in spring 2006 and the hedge not only caught snow, but sheltered the area from south winds so that even after it melted, the ground dried more slowly than the open area 10 or 12 rows into the field. The effect on the growing corn has been dramatic. The rows next to the hedge in the snowdrift line were considerably taller, set on better ears and looked generally healthier than the drought-stunted rows just beyond the snow melt. Getz believes that if the field had been covered with stripped wheat straw, rather than thin corn residue, the corn would have had a much better chance of making grain.

If a farmer plans on raising wheat, particularly in a no-till situation, Getz believes that there is no better choice than a stripper header. He can cut faster and more efficiently with his Shelbourne. It does a better job on a weedy field, leaving the green matter in the field and out of the combine's grain tank. And, his own fields have taught him about the moisture saving benefits of the straw.

"Some people might think a Shelbourne is overpriced, but I think they should give it a try," Getz said. "I think there are benefits that more than make up for the initial asking price. We don't even want to put a regular head on our combine anymore, or have one in our fields. You can get over so many more acres with the Shelbourne. Your fuel usage is reduced. And, you harvest more clean bushels, especially if you have hail damage or weeds. You just need mother nature to cooperate."



Merle Vigil

AKRON, COLORADO, USA (RX54)



“If there is rainfall at flowering, then the stripper header can make a huge difference on yields”

Vigil studies effects of stripped straw in low moisture regions “It all starts with good wheat stubble.”

That’s the conclusion of Merle Vigil, director of the USDA-ARS Central Great Plains Research Station located in Akron, Colo. For 15 years, Vigil has studied cropping systems, tillage methods and crop rotations at the research station. The Akron station serves an area which includes the extreme southeastern corner of Wyoming, eastern Colorado, the western third of Kansas and the Nebraska panhandle.

One of Vigil’s research interests is the effect of crop residue on moisture utilization and production capacity in this low precipitation area. While farmers often have anecdotal evidence of the benefits of higher profile stubble on moisture retention, Vigil has documented and scientifically measured, controlled and replicated experiments that have made him an advocate of tillage and harvesting systems which leave residue on the soil. He is convinced the pivotal point on which the whole system hinges is wheat stubble, as wheat typically is the heart of any crop rotation grown in the region.

Vigil oversees the station’s test plots on which a variety of crops is grown, including the basic three produced in eastern Colorado, wheat, proso millet and dryland corn, as well as soybeans, grain sorghum, sunflowers and more exotic crops such as mung beans and cowpeas. But, the base crop in nearly all the rotations is wheat because the silhouette factor of its stubble provides the most benefit for crops grown after it. Vigil believes that farmers in low-moisture areas, such as eastern Colorado and western Kansas, should be stripping their wheat for the most benefit.

According to Vigil, stripper header harvested stubble provided more moisture conserving benefits than conventionally harvested stubble. His research has found that the stripped wheat stubble reflects heat, reducing evaporation; increases water infiltration; slows down the wind, furthering reducing evaporation; traps snow and, ultimately, increases soil water storage.

“Each additional inch of profile helps capture more moisture”

For a region where rainfall averages from 9 to 18 inches a year, with most areas averaging closer to 12 inches, that increased soil water storage can be critical for plant development. Some of the research is indicating that the value of one inch of stored water can equal an average of 25 additional dollars per acre, depending on the crop.

The research station's stubble height studies have shown definite advantages for taller stubble in moisture catch (particularly snow) and retention. A recent three-year study completed in fall of 2006 (results are currently available from the first two years) sought to measure the impact stubble height had on stored soil water and subsequent dryland corn yield. The study involved installing tubes which measured soil water in stripped wheat stubble and conventionally harvested stubble.

Vigil was not surprised to find that the stripped stubble caught more snow (the lone blizzard in 2003 found the stripped stubble catching a snow depth of 11 inches compared to 2 inches in the conventionally harvested stubble) and stored 1.3 inches more water in the soil during the fall, winter and spring. The second year of the study found 1.32 inches more water was stored in the stripper-header residue, with precipitation storage efficiency 26 percent higher than in the conventional straw. The research station published the first two years of study results in each respective year's annual report. A full analysis of the three-year study will be made available to the public in the future, but Vigil is excited about the results and what it can mean for farmers in the region. However, he is quick to caution that there is more to yield results than how much moisture is stored in the soil during the fall, winter and spring.

“This is nice, but it's not the whole story,” Vigil said. “(Yield) also depends on what happens at flowering. If there is rainfall at flowering, then the stripper header can make a huge difference on yields.”

Vigil and his fellow researchers at the station are currently working with skip row plantings using primarily corn and grain sorghum. Stripped straw plays a critical role in capturing and maintaining moisture for the skip row system, which stores moisture in the unplanted strips (or skips) between the planted rows. They are seeing some very promising early results from their test plots.

“Plants don't plan well for their future. If there is available moisture, they use it up,” Vigil said in explaining the concept behind the planting system. “By skipping rows we are storing moisture which won't be used until a plant's roots grow into the unplanted areas. They use the water as they grow into it where in a conventionally planted field, the plants

use the water equally across the field and when it's gone, it's gone. The plants have to wait for additional rain, or irrigation, for needed moisture, which may not come when needed. With skip row, the stored water is accessed over a longer time period.”

Vigil and his fellow researchers believe so strongly in the benefits of stripping wheat over conventional harvesting in low precipitation areas that they have tested their stripper header, a Shelbourne 18-foot model, on a variety of crops. They have successfully stripped millet (traditionally swathed and then harvested), soybeans, peas, garbanzo beans, rice, triticale and barley – even though stripper header manufacturers do not recommend using a stripper header on anything other than small grains, such as wheat, triticale, barley and rice. Researchers have also tried the stripper header on grain sorghum with mixed results.

“We found that with most of these crops, the stripper header did leave a nice high profile stubble,” Vigil said, adding that each additional inch of profile helps capture more moisture.

He added that while the research is still out on the benefits of stripping row crops in low-moisture systems, there is no question in his mind about the benefits of stripping wheat in the High Plains area. Even factoring in the costs of purchasing a stripper header which might only be used for wheat harvest, the economic benefits are worth it. The snow catch study of the 2004 corn harvest found a 20 bushel advantage in the stripped stubble. Assuming a \$2.39/bushel corn price, the value of the stripper header stubble was \$47.80 per acre. While the yield results were not as dramatic in 2005, the stripper stubble still provided an additional \$16.49 per acre over the conventionally harvested stubble.

“We strip everything (at the research station),” Vigil said. “We don't think there's any other way for no-till cropping systems in low moisture areas. The benefits of the moisture catch and retention for our area of the country are supported by our research.”





Ron Suppes

DIGHTON, KANSAS, USA (CVS32)



"We've used (the stripper header) to harvest wheat, triticale and oats and haven't found anything that does better"

It was a hail storm that first introduced Dighton farmer Ron Suppes to Shelbourne stripper headers, but it was the economics of running the header that has kept them on his combine.

Suppes purchased his first Shelbourne stripper header in 1994 after a hail storm hit wheat fields he farmed in Colorado. He found the stripper header was the best option for picking up broken-over straw, salvaging much of the grain left lying on the ground.

Since that initial purchase, Suppes has had several Shelbourne stripper heads and now runs two heads purchased from American Implement in Scott City, Kan., on a John Deere 9600 and a 9610. He finds that a stripper head can make an older combine a more efficient machine and says his 28-foot Shelbourne can keep up or cut more bushels per hour than a new rotor machine. He just can't figure out why more custom cutters don't use them, as his experience has shown that he can cut about 36,000 bushels of wheat in the same time it takes a combine with conventional head to cut 18-20,000 bushels. That translates into savings in time, fuel and efficiency.

The stripper header uses a rotating finger mechanism to guide the stem into a keyhole and strip the head from the straw. Only the head goes into the machine, where it is threshed. The only residue which moves through the combine is the chaff from the heads and incidental straw.

"We've used (the stripper header) to harvest wheat, triticale and oats and haven't found anything that does better," Suppes said. "It leaves the residue intact."

Suppes knew the stripper header worked great on hail-damaged wheat. What he didn't know at the time he bought his first Shelbourne was how stripped straw would eventually work into his no-till farming operation. Stripped straw residue can be three to four times taller than straw residue left on a conventionally harvested field.

“It leaves the residue intact”

Can a few inches of residue really make that much difference in a no-till cultivation system? Suppes believes it does.

In 2005, he had a field where he had a conventional head cutting side-by-side with a stripper head. When he came into that field to plant his 2006 spring crop, he found more moisture in the stripped straw than in the conventional straw. His probe made a believer out of him. That extra moisture can be critical in low rainfall areas of western Kansas and eastern Colorado, particularly obvious now as the region has experienced a seven-year drought.

Suppes manages approximately 8,000 acres, primarily in Lane and Scott counties in Kansas, of which 3,000 are sown to wheat and an additional 3,000 acres are split between corn and grain sorghum. The remaining ground is summer fallowed to build up and conserve moisture. He would like to eventually move to 5,000 acres of wheat and 2,500 in corn and grain sorghum, but moisture levels will need to get back to a more normal rainfall for that to happen, he says.

Suppes plants all of his dryland corn and grain sorghum into wheat or triticale stubble and in 2006 had about 75 percent of his acreage (50 percent of his wheat) in a no-till cropping system. A firm believer in the benefits of no-till, he would be 100 percent, but still has some landlords who prefer a more traditional tillage on their fields, he said.

He has found his Shelbourne headers to be very compatible with no-till.

When he first began using a Shelbourne stripper header, his neighbors questioned how he would be able to no-till plant through the straw. According to Suppes, as long as the straw is intact and still rooted in the ground, there is no problem. In fact, he says it's much easier to plant into stripped straw than into conventional straw, which can have residue lying loose on the ground and can plug the planter. He does find that, when planting corn into stripped straw it works better to run at a slight angle to the wheat stubble.

If there is a problem with planting into stripped straw, it's that it

sometimes works too well in retaining moisture. A lot of heavy snowfall can bend the straw over, trapping moisture and providing enough shade that it takes longer for the ground to dry enough to plant. Suppes, however, doesn't consider that a negative – just a sign that he's achieving his objective of capturing every bit of moisture he can.

“You just have to be patient and wait a little longer,” he said, adding that he's always been able to get his spring crop in the ground in time. “I'm glad for that moisture later in the season.”

In addition to the moisture-retaining advantages of stripped straw, he's found that his stripper headers offer some moisture savings on the other end – when harvesting weedy wheat, a problem in wheat stressed by poor growing conditions.

Suppes finds that dead weeds typically go through a stripper head and out the back end of the combine leaving little trash in the bin and, even when cutting through green weeds, the stalks don't go through the combine as they would with a conventional header. As evidence, he recounted a time when he was cutting weedy wheat in Colorado for a landlord, who insisted that in addition to Suppes two combines with Shelbourne heads, they also use two custom cutters with conventional heads. Wheat cut with the conventional head tested 24 percent for moisture with a heavy dock at the elevator. The loads cut with the Shelbourne tested 17 percent for moisture. The landlord sent the custom cutters on their way.

Suppes isn't afraid to be the first to try something new if it makes sense to his bottom line – whether that's a new crop like triticale or hard white wheat or a new tillage method. The decision to purchase his first Shelbourne stripper header in 1994 is one he has never regretted. It's compatibility with farming in low moisture regions just makes economic sense.

Ron currently runs two CVS32 stripper headers on John Deere 9770 combines.





Stacy Hoeme

SCOTT CITY, KANSAS, USA (CVS32)



“One of the great benefits of the stripper header is the wheat stubble it leaves for the milo.”

The first year Stacy Hoeme used a Shelbourne stripper header his uncle had a rather extreme reaction to the tall straw. As Hoeme remembers it, his uncle asked, “What the hell are you going to do with this?” What he did with it was raise 100 bushel milo following the wheat.

That was 12 years ago and Hoeme, of Scott City, Kan., has never regretted purchasing that first stripper header, in fact he purchased his 5th stripper header, a CVS32 in 2010. In an area of the state where rainfall in the best of years is 19 inches or less, and for the past five to six years has been nearly non-existent, Hoeme believes he made the right decision at the right time.

Hoeme farms 5,000 acres in and around Scott County in southwest Kansas and operates HRC Feeders, a 30,000-head feedlot southeast of Scott City. Except for 600 acres of irrigated ground, the farm is dryland, no-till. Hoeme utilizes a rotation of wheat-grain sorghum-summer fallow or wheat-grain sorghum-grain sorghum-summer fallow on his ground. The irrigated acreage is planted to

corn, with some wheat irrigated with feedlot runoff. Dryland Roundup Ready corn is sometimes substituted into the spring crop rotation. In any given year, he has 1,500 acres in wheat, 1,500 acres in grain sorghum, 600 acres in irrigated corn and the rest in summer fallow. His irrigated corn is fed through the feedlot, either as grain or as silage.

He believes the no-till is paying off, even in the extremely dry conditions the region has experienced this year. He raised an average of 41 bushel wheat in 2006, well above what many farmers experienced. His grain sorghum after wheat has also averaged higher than conventionally tilled and harvested fields during the recent drought years.

“There’s more moisture in the taller straw”

The difference, he believes, lies in the straw.

“One of the great benefits of the stripper header is the wheat stubble it leaves for the milo,” Hoeme said. “If there is good stubble, then you’ll get a good, solid milo stand that maintains even in the dry years.”

He has compared his stripper-cut fields with ones harvested with conventional or draper heads and has found significant differences. The advantages of the stripped straw is especially noticeable when conventional and stripper heads have been used in the same or adjacent fields.

“When I’ve hired wheat cut, the straw is low to the ground. Even when no-tilling into it, you can see a difference. The milo planted in that shorter straw is trying to burn up compared to the milo planted in the taller straw,” Hoeme said. “Take a probe and check it out. There’s more moisture in the taller straw.”

Moisture conservation wasn’t the reason Hoeme bought his first Shelbourne stripper header, however, the primary factor in that first purchase was harvesting efficiency.

Hoeme’s first stripper header was a CX84 which he ran on a 7720 John Deere. He had two combines and ran both side by side in the same fields. His wheat averaged 60 bushel to the acre that year and he quickly saw the differences between the two headers. The 28-foot stripper head could not only cut more wheat per hour -- 1,000 bushel compared to 700 bushel with the 30-foot conventional head -- but the conventional header left trash in the field that caused problems when no-tilling in the next crop. He now harvests approximately the same number of acres in the same amount of time with a 9660 STS John Deere and a CSV32 stripper header as he did with two combines. Hoeme believes yields also improve because the stripper header will pull in lighter heads that are lower in the field which the conventional header wouldn’t pick up or would spit out.

“The test weight might be a little lower with those lighter heads, but the bushels will end up being more from the field,” he said.

He is so convinced of the benefits of stripped straw that he has turned down offers of harvest help if a conventional or draper header will be used.

“It’s really hard to turn a combine away, but it wasn’t doing as good of a job,” Hoeme said.

But, he believes the moisture retention from the taller, stripped



“It’s really hard to turn a combine away, but it wasn’t doing as good of a job.”

stubble may be a more key production factor in his operation than harvesting efficiency.

“As decreasing water resources become more costly in southwest Kansas and the climate continues to work against farmers, being able to produce with limited moisture will be the difference between those farmers who make it and those who don’t,” he said.

According to Hoeme, even when the taller stubble lays over and has a lower profile, it still will catch snow and trap moisture, perhaps even better than the standing straw will. He has taken a probe and checked moisture profiles between the standing and laid down straw and has found moisture at the four-foot depth in the standing straw and at the five-foot depth in the laid over straw. The taller standing stubble also provides shade for the young grain sorghum plants until they are well established, while at the same time slowing weed growth. His experience indicates that the twin benefits of moisture retention and sheltered growing conditions can improve grain sorghum production by 10 to 20 percent. He also has found that replanting is a rarity and that, if there is a downpour, the stubble stops runoff and soil erosion.

Hoeme uses a John Deere 1770 planter and has had few problems planting into the taller wheat stubble. When drilling wheat into stubble he tries not to move the stubble, however, with corn, he tries to move it away using Yettters so the ground warms up quicker. Heavy dew on heavy stubble can present problems, but those disappear when the dew dries off. He also avoids applying nitrogen directly on stubble as it will break it over.

“It is so nice to be able to go back with corn or milo into wheat stubble,” he said. “There is no comparison with the way it was before.”

Hoeme believes dryland no-till will be the future of southwest Kansas farms and that stripped straw will be the key to retaining the moisture to make it successful.

Dick Kurtzer

HAXTUN, COLORADO, USA (CVS28)



Jared and Ryan Kurtzer.

Kurtzers see no-till, stripper head as necessity.

Farmers around Haxtun, Colorado, in the extreme northeast corner of the state, are becoming experts on surviving in a prolonged drought period. For producer Dick Kurtzer and his two sons, Jared and Ryan, the key to raising dryland crops in eastern Colorado's semi-arid conditions has been conserving moisture in every way possible. They believe no-till has been the difference in their operation's crop production capability, allowing them to decrease fallow acres and increase cropping acres, and that the quality of residue left on their fields is of critical importance.

"No-till is a must. You have to do it all the way. It's all about moisture conservation and the straw is the start," Dick Kurtzer said.

The Kurtzers use a wheat-corn-millet rotation on their Haxtun farm. The corn is marketed to nearby feedlots and the millet goes to the bird seed market, with some exported for human consumption. They purchased their first Shelbourne stripper head in 1995 after a hailstorm severely damaged their wheat crop. At that time, they had just begun experimenting with no-till, making the decision to go 100 percent no-till in 1996. They currently own three CVS 28-foot

Shelbournes purchased from 21st century Equipment in Fort Morgan, Colorado, which they run on 9770 STS John Deeres. They believe a stripper header is an essential piece of a no-till operation.

"With a conventional header the straw has to be spread out on the field," Dick said. "We find the stripped straw works better because it doesn't leave that layer of straw behind the combine. Cutting with a stripper head is also easier on the combine. There's an initial cost in purchasing a stripper head but the stripper head will return more through the program."

With commodity prices at the level they have been for the past several years, the Kurtzers believe it's important to have all three crops – wheat, corn and millet – in their program rotation. In their part of the state, it would be very difficult, if not impossible, to raise dryland corn with conventional tillage methods, they said. In good years, the area receives about 12-14 inches of precipitation. The past two to three years, that amount has been less than half of the average. In their experience the best yields for corn and millet have been realized when planted into stripped straw.

“For ourselves, we see economic gains from the stripper header to offset the initial costs.”

“We have raised 115-bushel dryland corn in a year when we had only average rainfall,” Jared said. “That came after a good wheat year where we had good stubble to plant into. We used to think 50-bushel millet was really good. Now, with no-till into good straw, we expect to have at least 50-bushel millet.”

The Kurtzers said the difference between an average and a good harvest starts in the quality and amount of residue left on the ground. Dick said that often wheat in a no-till situation tends to be a little shorter than in a conventionally tilled field. Stripping the wheat maximizes the height of the stubble that is available. They try not to disturb the ground at all and let the spring crops come up through the wheat straw. They believe that’s a goal which is easier to achieve when the wheat has been stripped. It’s easier both to plant into stripped straw and easier for the corn to emerge. The family uses a 16-row John Deere 1770 no-till planter for spring crops.

The taller straw (and corn and millet residue) left on the field holds and retains moisture in two ways, through trapping snow and reducing evaporation from heat and wind. The area traditionally receives much needed moisture through heavy snowfall – though the past few winters have been abnormally dry.

“When we used to get snow, we found the taller stripped stubble did a lot better job of catching the snow and holding it,” Dick said. “We used to get a blizzard every year, but we haven’t had one for a while.”

In the winter of 2005-06, the area had three inches of rain in October, enough to get the winter wheat up, a half-inch of snow in January and nothing in the spring. Ryan Kurtzer said neighbors commented, that even with so little moisture, the Kurtzers’ dryland corn looked good coming up -- and still looked good through June. The Kurtzers credited it to the moisture retention properties of the stripped wheat straw into which the corn was planted. Unfortunately, the corn burned up in late July and August and was chopped for silage.

“You can only do so much if it doesn’t rain at all. But, at least with the stripped straw and the no-till we had a chance. With conventional tillage and

harvesting we wouldn’t have had enough moisture to even get it up,” Dick Kurtzer said. “But it has to rain sometime if you’re going to make it to harvest. It didn’t.”

Since Dick Kurtzer bought his first two Shelbourne stripper headers in 1995, Jared and Ryan have joined the operation full-time and the family have upgraded their stripper heads. All three men agree that the technology continues to improve on the headers with better variable speed drives and the switch to stainless steel fingers adding to the life of the headers. They have found the headers maximize their harvesting efficiency.

Even though the area has experienced major weather setbacks in recent years, the Kurtzers are still optimistic about farming and their operation’s ability to support three families. They believe the growing market for corn for ethanol plants will benefit their area – making it even more important to keep dryland corn in their rotation. They are convinced the Shelbourne stripper header and the quality straw it leaves for their no-till cropping practice is an investment that’s important to their success.

“For ourselves, we see economic gains (from the stripper header) to offset the initial costs,” Dick said. Ryan nodded in agreement, “It’s a quick payback for the owner/operator of a no-till operation.”



“The stripper head will return more through the program”

Larry Scott

JOHNSON CITY, KANSAS, USA (CVS32)

Larry Scott has used Shelbourne Stripper Headers since 2004, he farms approximately 12000 acres with about a third of those acres under irrigation.

He runs 3 CVS32 Stripper Headers on JD9770 combines. Larry first started using the headers to improve his combine capacity and to harvest more acres per hour. During the first year one field was 100% hail damaged although the stripper headers still managed to salvage over 50 bushels per acre.

He was worried about using Stripper Headers that first year but it took very little to adapt to the operation of the header, he said that *"We didn't need to reinvent the wheel we just had to change the way we operated"*. He continues to use Stripper Headers to improve his combines capacity and has also has seen a fuel saving. He also likes the tall straw residue that is left in the field.

Some of his neighbors have had him do custom work in lodged areas of there fields where there draper headers wouldn't perform

very well. Larry has had very little downtime with his Stripper Headers and the maintenance has been minimal each year. Larry is a minimal tillage farmer and deals with Golden Rule Equipment



Rod Lanier

LETHBRIDGE, ALBERTA, CANADA (CVS32)

Never Idle Farms is based in Lethbridge, Alberta and owned by Rod Lanier.

Never Idle Farms covers around 3300 acres with about 2300 acres dryland and 1000 acres under irrigation.

Rod Lanier first purchased a Shelbourne Stripper Header in 2003 for harvesting Flax, he currently runs a CVS32 on a CNH7120. He uses his Stripper Header for harvesting Wheat, Flax and most types of Lentils. Rod feels that he can run a smaller combine with the Stripper Header than he could if he was using a conventional header as the combine does not have to deal with all of the crop residue, he says that *"leaving the crop residue standing in the field makes running his disc planter a lot easier in the spring"*. He has seen a fuel saving running the Stripper Header and less wear on the internal components of his combine.

Rod says that if there is a disadvantage to running a Stripper Header it's his trucking capacity, he has seen very little downtime and the maintenance is no more than with any other type of head. Never Idle Farms is a customer of Hi-Way Service.



Darrell Kuhn

LAKIN, KANSAS, USA (CVS32)

Custom Harvesters are beginning to see more of a demand for Stripper Headers from there customers.

Darrell Kuhn who runs Kuhn Harvesting based out of Lakin, Kansas is one such custom harvester. He had two custom jobs in 2005 that the farmers wanted Stripper Headers used on. He now runs 6 CVS32 Stripper Headers on John Deere and Gleaner combines, he uses the headers from Texas to Montana and now uses them on his own crops as well. He will custom harvest around 35,000 acres with his 6 headers and says there is very little maintenance and has had little to no downtime.

He has stripped wheat and Camelina. His customer base is growing each year. Darrell has said that he can harvest more acres per day using less fuel and less wear on his combine using Stripper Headers, if there is a disadvantage it is educating passers by who are not familiar with how a wheat field looks after it has been Stripped. Kuhn Harvesting purchases headers from American Implement,

Golden Rule Equipment and 21st Century Equipment



Darrell has said that he can harvest more acres per day using less fuel and less wear on his combine using Stripper Headers

Seth Millhorn

WORLEY, IDAHO, USA (CVS32)

Seth Millhorn ran a Shelbourne Stripper Header for the first time in 2011.

Seth owns Millhorn Farms based in Worley, Idaho, he runs two CVS32 Stripper Headers on Case 8010 Hillco combines. Seth harvested approximately 3000 acres of Wheat with his 2 Stripper Headers and said *"its like having an extra combine in the field"*.

Seth has a large straw contract and will swath and bale the standing straw after harvest, the standing straw is of a very high quality and in long lengths with very little dust. Seth feels like he is increasing his daily production is putting less wear on his combines and is saving fuel.

Several members of the local conservation district have been out to watch the Stripper Headers in operation and they feel like the Stripper Headers will be crucial to local farmers where moisture conservation is vital and no till and direct seeding have become very popular. The headers were purchased from Jones Truck & Implement.



Seth feels like he is increasing his daily production is putting less wear on his combines and is saving fuel.

Randy Taylor

SASKATCHEWAN, CANADA (CVS32)

Fuel savings of up to 1/3rd compared to running a conventional header are one of the reasons that Randy Taylor runs a Stripper Header.

Clairbank Farms a dryland farm of approximately 2800 acres started using a Stripper Header in 2008. Randy currently owns a CVS32 running on a JD9770 combine, he uses his Stripper Header on Wheat, Peas and some Red Lentils. He says that along with the fuel savings the standing residue catches more snow, helps stop blowing dirt and helps retain moisture.

Randy runs a disc planter and says that is the only way to get through the standing residue. Clairbank Farms have had no downtime with there Stripper Headers and say that there is very little maintenance as there are actually fewer moving parts than with a draper head. Randy is a customer of JayDee AgTech.



Clairbank Farms have had no downtime with there Stripper Headers.

Troy Adams

KANSAS, USA (CVS32)

Speeds of 7 – 8mph impress Troy Adams of Johnson City, Kansas the most about Shelbourne Stripper Headers.

Troy farms around 5500 acres of Wheat, Corn and Milo, roughly 2000 acres of the farm is irrigated. He started using Stripper Headers in 2001 mainly to gain ground speed, so he could cover more acres per hour and with the Stripper Header leaving the Straw standing he is able to harvest for more hours of the day. Troy currently runs a 2011 CVS32 on a CNH7120 combine and says that if there is a disadvantage its that the CVS32 (32') is the biggest head currently available.

He has had no significant downtime with any of his Stripper Headers and the maintenance and up keep have been very little. Troy says that most of the wheat acres are summer fallowed and are sometimes tilled after summer fallow depending on the level of residue left. Troy purchased his headers from American Implement.



The maintenance and up keep have been very little.

Troy Allen

SUMMERTON, SOUTH CAROLINA, USA (CVS28)

Oak III Farms is located in the small town of Summerton, South Carolina, Troy Allen, is one of the owners.

Oak III Farms run a 28ft CVS Shelbourne Stripper Head which they purchased new in 2011, they run the head on a John Deere 9770 STS.

They harvest their wheat at a higher moisture and earlier in the season than most local area farmers to allow time for double-crop soybeans. Troy says that by stripping the wheat with a Stripper Header you don't have to process all the green straw that accompanies high moisture wheat. The farm totals around 3600 acre's with around 1200 acres in Wheat and the remainder in Corn, Beans and Greens, about 900 acres of the farm are irrigated. Troy practices some No-Till for moisture conservation and uses a John Deere MaxEmerge Planter with subsoilers. Oak III Farms started using a stripper header in 2002 for the same reasons, the ability to harvest his wheat earlier and quicker. Up until 2011 the farm used to have an older CX84 head and Troy figures he only had to spend about \$500 over the 8 years they owned

it in maintenance and up keep costs. Troy says that Shelbourne Reynolds is a very easy company to work with.



Troy says that Shelbourne Reynolds is a very easy company to work with.

Lee Robey

ADAIRVILLE, KENTUCKY, USA (CVS28)

It could be said that Robey Farms of Adairville, KY have run every type of Shelbourne Stripper Header ever made.

They ran there first Stripper Heads in the early 1990's on NH TR86 combines, back then the largest size was a 20' model, they have owned Stripper Headers ever since and now run 3 x CVS28 heads on JD 9770 combines. Robey Farms is owned by Lee Robey. The farm consists of farmland and a large dairy, the farmland totals 12,500 acres, none of the acres are irrigated. Along with wheat Lee grows Barley, Corn, Beans, Alfalfa, and Tobacco.

Nearly all of the wheat is double cropped into soya beans, the Stripper Header allows them to harvest the Wheat and Barley earlier and at a higher moisture level which allows them to plant their double crop beans earlier. Lee sees a higher grain quality when using a Stripper Header and his combines run more efficiently which reduces wear and tear and decreases fuel usage. The Stripper Headers also show exceptional performance in downed or lodged crops and are excellent

for residue management. Lee says that Stripper Headers cost no more to run than a conventional platform or draper header and are very easy to work on. Robey Farms has always enjoyed working with everyone at Shelbourne Reynolds and looks forward to running Stripper Headers for a lot more years.



Lee sees a higher Grain quality when using a Stripper Header.

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