“Market prices are down and I just don’t know what I am going to do next year.”

This is a common theme in agriculture today and it is hard to overcome. Today the market price of corn is substantially below levels seen in the past few years, but **there is still opportunity in corn.**

As of today the American Farmer in general is doing two things,

1) Planting more wheat acres this fall, and
2) Planning to plant more spring wheat and soybean acres in the spring

**Why?**

Because the market price for wheat and soybeans has them believing that they will be able to capture a higher profit from wheat and soybeans than corn. But the kicker is that this same scenario played out before our own eyes in the corn market over the past two years.

The keys to a profitable corn crop in the coming year in my opinion stem from a few important decisions.

First the decision to continue your crop rotation plan regardless of market price,  
Second to pay attention to every detail of your cropping plan in the coming year, and  
Finally to **grow the best corn crop of your life.**

Wow now that’s crazy. When market prices are low I believe that one of the most important decisions is to grow the best corn crop of your life… surely this will only make the price worse?

But the secret is **yield trumps everything.** As producers you have very little control over input costs or market price. Spending all of your time managing these two variables yields very little return. Therefore increasing yield is the factor that has the greatest potential to increase your profit and help you achieve “farming success.”

- Matt Long
Does test weight affect yield from Know More, Grow More

This time of year there is always a coffee shop discussion on if higher test weight means more yield. To figure this out, we first need to define bushel and test weight. An official bushel of U.S. No. 1 corn is 56 pounds. Test weight, simply put, is a measure of how many pounds of corn will fit into a certain volume.

What factors influence test weight?

There are many things that affect test weight. Kernel size, density, shape, slickness, hybrid and grain moisture to name a few. There are differences by hybrid as well, but a high-yielding hybrid may not have a high test weight and a low-yielding variety can have a low test weight.

Grain moisture

As the grain moisture decreases, the test weight increases, because as the kernels dry, they also shrink and allow more kernels to fit into a volume. Also, dry corn is slicker and allows for better packing. Table 1 below shows as you decrease the moisture content, you increase the test weight. However you decrease total weight of the load (this is why the elevator “shrinks” the load.). They are mathematically removing the excess moisture you are delivering to them above the 15.5 percent level.

Table 1. Increase in test weight during drying for mature corn harvested between 18 and 28 percent kernel moisture.

<table>
<thead>
<tr>
<th>Harvest Moisture Content</th>
<th>Increase in Test Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>lbs/bu</td>
</tr>
<tr>
<td>18</td>
<td>1.5</td>
</tr>
<tr>
<td>20</td>
<td>2.0</td>
</tr>
<tr>
<td>22</td>
<td>2.5</td>
</tr>
<tr>
<td>24</td>
<td>3.0</td>
</tr>
<tr>
<td>26</td>
<td>3.5</td>
</tr>
<tr>
<td>28</td>
<td>4.0</td>
</tr>
</tbody>
</table>

As you can see in Table 2 (Right) the grower is paid on the total weight of corn delivered. A 20,000 pound load of corn is 357.14 bushels regardless of test weight. The only difference comes in when the test weight is below the acceptable levels of the delivery point and is docked. You can increase test weight by decreasing the grain moisture, but you get paid on the pounds of grain you deliver divided by 56 pounds (an official bushel of U.S. No. 1 corn), not test weight. If test weight was all that mattered we would be looking at test weight data not yield data at harvest time.

Discount Schedule from Golden Harvest

Table 2. Example calculations of corn value, with varying test weight.

<table>
<thead>
<tr>
<th>Load #1</th>
<th>Load #2</th>
<th>Load #3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (lbs)</td>
<td>20,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Number of bushels to be sold</td>
<td>357.14</td>
<td>357.14</td>
</tr>
<tr>
<td>Moisture content</td>
<td>14.5%</td>
<td>14.5%</td>
</tr>
<tr>
<td>Test weight (lbs/bu)</td>
<td>54.0</td>
<td>59.0</td>
</tr>
<tr>
<td>Volume (ft³)</td>
<td>461</td>
<td>422</td>
</tr>
<tr>
<td>Price ($/bu)</td>
<td>4.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Calculation of value</td>
<td>357.14 bu x 4.00 bu</td>
<td>357.14 bu x 4.00 bu</td>
</tr>
<tr>
<td>Value ($)</td>
<td>$1,428.57</td>
<td>$1,428.57</td>
</tr>
</tbody>
</table>

* By law, 1 bushel = 56 lbs.
* Moisture discounts and drying charges usually apply when the moisture content exceeds 15%.
* There are no moisture discounts or drying charges in this example.
* Includes a test weight discount of $0.04 per bu calculated by the policy stated under Table 1.

Know More, Grow More from Syngenta

“Know More, Grow More,” a Syngenta agronomy blog, is a direct link between U.S. growers and the expertise of our 70-plus trained agronomists who work where you farm. Our goal is to help you maximize your crops’ potential by providing local insights on a regular basis. We are here so you can grow more, regardless of crop or region.

Take advantage of this resource by visiting, www.knowmoregrowmore.com/corn/
Dryland Secure Plant Assurance from Syngenta

**G01P52 Artesian**

**Brands Available:**
- G01P52-3011A
- G01P52-GTA

**Exciting Yield Levels Paired with Agrisure Artesian Technology**
- Maximizes yield when it rains; increases yield when it doesn’t
- Well suited to continuous corn environments
- Dependable stalks with superior late-season plant health

**Purpose**
To provide growers the opportunity to plant the most elite dryland genetics, while minimizing the risk of their seed investment from complete crop loss due to severe drought conditions.

**Eligible Golden Harvest Hybrids**
- G09Z33
- G07B39
- G01P52
- G07V88
- G03J49
- G10Z64
- G06K93
- G11U58

**Assurance Details**
To qualify, increase your total order by 24 units over last year on Syngenta brand corn hybrids.

If the corn is destroyed by a weather event causing it to yield less than 10 bushels per acre, the grower is eligible for a $90/unit payment.

**Are you bringing your “A” game this season?**

**See the Artesian difference.**

Take the unpredictability of weather out of your fields this season. Contact your Syngenta Seed Advisor or retailer about Agrisure Artesian and bring your A-game to the fields.

**The real beauty is its ability to turn water into grain more effectively.**

Corn plants with Agrisure Artesian® trait technology have the unique ability to thrive under a wide variety of growing conditions. In fact, Agrisure Artesian is really an all-weather trait that can help any corn hybrid turn available water into more grain—all season long. With Agrisure Artesian, you’ll maximize your yield when it rains. And improve yield up to 15% when it doesn’t. To learn how to grow more corn visit agrisureartesian.com or contact:

RED BARN ENTERPRISES, INC.  
Matt Long | 620-872-4842
Considering Hybrids for 2015 from Know More, Grow More

Real world agronomy is complex – very complex. It’s where soil science, soil supplied and applied fertility, plant pathology, entomology, weed science, soil and water conservation all collide with technology allowing one to measure, analyze and deliver site-specific solutions. Many key decisions take place when selecting a hybrid such as planting date, fertility levels, population, crop rotation, tillage, row spacing and even crop protection needs. Year in and year out, corn goes through three critical phases: stand establishment, then rapid vegetative growth, and finally pollination and grain fill, a critical time when corn plants need maximum – as much as 95 percent – sunlight interception. (This is why diseased plants that can no longer photosynthesize efficiently see grain fill and test weight impacted.) The goal each year is to maximize leaf area in order to maximize light interception.

A number of factors affect light interception, including plant populations, row width, weed management and the orientation of the corn leaves, something that weeds make the crop more susceptible to. Why is row spacing important? Plants compete for resources such as sunlight, carbon dioxide, water and nutrients. This leads to the importance of roots in selecting the right hybrid. Roots are critical in moisture uptake, nutrient uptake and ultimately the standability of the hybrids, particularly later in the season.

Hybrid selection requires the evaluation of many important factors. Attaining maximum sunlight interception for top yields requires good fertility, the right population, good plant health and a little luck from Mother Nature as well. Keep in mind that root type, leaf type and ear flex are not the only factors. Select hybrids based on defensive characteristics needed (i.e. Goss’s wilt tolerance, Gray leaf spot resistance, etc.) as well. Remember, the biggest drivers of yield are hybrid genetics, weather conditions and crop nutrition.

Selecting the right hybrid for your growing conditions is crucial. Other considerations when selecting a hybrid are things like root and leaf structure, as well as ear type.

**Root Structure**

1. **Penetrating** – Hybrids with thick-penetrating roots that have the ability to go deep can pick up much-needed water and nutrients late in the season. They may benefit more from narrow rows and possibly from later nutrient applications when the nutrients move lower in the root zone.

2. **Modified** – Hybrids that seem to do well in both coarse, sandy and poorly-drained clay environments have a combination of fibrous, shallow and deeper penetrating root systems.

3. **Fibrous** – Fibrous root systems that spread out may perform better in wider rows because the roots can gather water and nutrients from further distances from the plant, especially in coarse/sandier environments.

**Leaf Structure**

1. **Upright** – These leaves grow straight like a pineapple. In high populations, they allow sunlight to reach deeper into the canopy to increase photosynthesis.

2. **Pendulum** – Flopping out and intercepting light like solar panels – capturing light before it gets down low – these are suited for lower populations. They help to decrease water loss from evaporation while maintaining photosynthesis.

3. **Semi-upright** – Upper leaves (above ear) are more upright and lower leaves (below ear) more pendulum-like. This provides some row shading in the light soil while also intercepting sunlight in the heavy soils.

**Ear Type**

1. **Determinant** – These change their size very little, so you have to plant them at the higher end of the population range to optimize yield. This allows you to push populations as much as possible. If yield potential is low, you might consider a semi-determinant hybrid that gives a little more flexibility.

2. **Flex** – These ears will get bigger given the right agronomic conditions. You can use this type to maximize yield on lower populations while conserving water.

3. **Semi-flex** – These flex their size somewhat less than true flex ear hybrids by maintaining ear size at higher populations and flex out to maintain yield at lower populations.

4. **Poorly drained** (CEC 30-40) – Use a semi-flex ear type with semi-upright leaves and fibrous / modified roots, pushing populations in the highly productive soil (34-36K) and reducing population in the lighter soil (<30K)

**Field Type**

1. **Drought-prone** (Cation exchange capacity (CEC) 3 -8) – Use a pendulum-leaf hybrid in narrow rows in order to canopy as quickly as possible and minimize water evaporation from the soil, flex ears, fibrous roots and a taller plant height.

2. **Highly productive** (CEC 15-20) – You want to maximize sunlight interception, use a short-statured hybrid with thick-penetrating roots, upright leaves and determinent ears.

3. **Variable soils** (CEC 18-30) – Use a semi-flex ear type with semi-upright leaves and fibrous / modified roots, pushing populations in the highly productive soil (34-36K) and reducing population in the lighter soil (<30K)

4. **Poorly drained** (CEC 30-40) – Use a short-statured plant with a fibrous root, upright leaves to allow excess water to evaporate and minimize disease and flex ears.
**G03J49**

**Brands Available:**
- G03J49-3000GT

**EXCELLENT YIELD POTENTIAL WITH GOOD DRYDOWN**
- Strong yield performance across soil types
- Great drought tolerance
- Tall, robust plant type

---

**G07V88**

**Brands Available:**
- G07V88-5122 E-Z Refuge
- G07V88-3000GT
- G07V88-GT

**ELITE GENETICS WITH SOLID AGRONOMICS FOR SUPERIOR YIELD PERFORMANCE**
- Broad adaptability with very good drought tolerance
- Good late-season plant intactness
- Ear flex makes this hybrid a good choice for all management practices

---

**G10Z64**

**Brands Available:**
- G10Z64-3220 E-Z Refuge
- G10Z64-3000GT

**EXCELLENT TOLERANCE TO HEAT AND MOISTURE STRESS WITH WESTERN ADAPTATION**
- Superb yield performance across environments, especially south of zone
- Tall hybrid with good ear flex and solid agronomic qualities
- Good choice for high pH soils

---

**G11U58**

**Brands Available:**
- G11U58-3122 E-Z Refuge
- G11U58-3111
- G11U58-GT

**WIDELY ADAPTED WITH CONSISTENT PERFORMANCE OVER MANY ENVIRONMENTS**
- Exceptional standability provides flexible harvest schedule
- Superb drought tolerance and ear flex support high yields
- Yields well in Gray Leaf Spot environments, despite below average disease tolerance rating

---

**G13N18**

**Brands Available:**
- G13N18-3111

**EXCELLENT TOLERANCE TO HEAT AND MOISTURE STRESS WITH WESTERN ADAPTATION**
- Excels in high-management acres of the western Corn Belt
- Solid performance in drought-prone and variable soil types
- Rapid drydown contributes to ease of harvest

---

**G14H66 Artesian**

**Brands Available:**
- G14H66-5122A E-Z Refuge
- G14H66-3010A
- G14H66-GTA

**OUTSTANDING YIELD POTENTIAL WITH AGRISURE ARTESIAN TECHNOLOGY**
- Maximizes yield when it rains; increases yield when it doesn’t
- Strong root and stalk strength promotes late-season standability
- Solid leaf disease package enhances broad adaptability
Seed Tenders from TruAG

Defender 2E - Defender 2SE

Optional FC300SS, 300 gallon fuel caddy
Allows filling fuel and seed at the same time.

Standard Equipment
- Heavy duty trailer design
- Easy glide pro box placement
- 9HP Honda motor with electric start
- Hydraulic driven polycupped auger
- Hydraulic folding auger
- 3 stage telescoping spout
- Clean out access at auger base
- Wireless remote control
- Pre-wired for graphite/inoculant/talc
- Durable powder coat finish

Trailer
- 6k torsion axle, Dual axle electric brakes
- ST225 / 75D15 tires, 2-5/16” coupler
- Safety chains, Heavy duty jack
- Stop turn tail lights

Optional Equipment
- 4’ long flexible spout
- Dry seed treater
- Metal box covers
- Rock guard
- Tie down hooks
- Scale systems

Defender 4

Entire auger rotates about center pivoting mechanism providing maximum flexibility.

Standard Equipment
- Heavy duty trailer design
- Easy glide pro box placement
- 13HP Honda motor with electric start
- Hyrdostatic driven polycupped auger
- Hydraulic folding auger
- 3 stage telescoping spout
- Clean out access at auger base
- Wireless remote control
- Pre-wired for graphite/inoculant/talc
- Durable powder coat finish

Trailer
- 7k torsion axle, Dual axle electric brakes
- ST235 / 85R16 tires, 2-5/16” coupler
- Safety chains, Heavy duty jack
- Stop turn tail lights

Optional Equipment
- 4’ long flexible spout
- Dry seed treater
- Metal box covers
- Rock guard
- Stand-off legs
- Scale systems
The No. 1 priority for the herbicide team at Syngenta is continuously developing and evolving technologies that target growers’ most problematic weed challenges. With weeds causing up to $2 billion1 in economic losses to crops each year, its work has never been more important – or urgent. In a 2013 survey, growers identified waterhemp, Palmer amaranth, marestail, giant ragweed and morningglory as the top five most difficult-to-control weeds in corn2.

The team’s newest herbicide, with registration expected in time for the 2015 growing season, controls these weeds and more. Acuron™ herbicide is expected to be registered in field corn, seed corn, silage corn, sweet corn and yellow popcorn. Acuron features three modes of action and four active ingredients, including new bicyclopyrone, and is in testing and pre-registration trials, has demonstrated control of more than 70 broadleaf weeds and grasses. The multi-targeted approach will offer built-in corn weed resistance management and season-long residual control will help reduce the weed seed bank for future generations.

The introduction of Acuron is following five years of formulation testing and more than 700 field trials featuring bicyclopyrone. This season alone, Acuron has been trialed in an impressive number of locations across the U.S., providing growers and retailers an opportunity to see its performance prior to registration. The number of 2014 Acuron trial locations totaled 167, with trials in 35 states. Trials included 95 Syngenta locations (Grow More trials, R&D trials, and demonstration trials), 54 university locations, and 18 distributor plot locations.*

The addition of Acuron to the Syngenta lineup represents a step forward for growers looking for a new solution to their weed challenges. In a market with few new active ingredients, Acuron will offer a brand-new active ingredient for weed control.

For more information, visit www.acuron-herbicide.com.


22013 Syngenta market research: cocklebur, kochia, marestail, morningglory, ragweed (common, giant), waterhemp (common, tall).

* Trial locations are approximate and reflect numbers as of May 1, 2014. All trials are for data collection or demonstration purposes. The corn in these trials will be destroyed to comply with EPA guidelines.