



Product Placement Contributes to Maximizing Yield Potential

Key Points

- Yield potential is the first criteria to focus on when selecting seed products.
- Other product selection criteria may include pest resistance, emergence, and standability.
- Seed product positioning is selecting a seed product on a field-by-field basis, based on each field's specific characteristics, management and potential pest pressure.

Generally, the first selection criteria when choosing a seed product is yield potential, followed by various agronomic characteristics. When selecting seed products the emphasis or ranking of agronomic traits to consider can vary from one field's priorities to another. For example, a single seed product may not be the best choice for all fields as there can be differences in their soil types, drainage, potential pest pressure, and overall yield potential.

Seed product positioning is the process of fine-tuning product selection based on specific agronomic characteristics needed to maximize profitability on a per field basis. The seed product you choose should be the best match for your environmental conditions, management practices, and risk factors. In essence, the process is "placing the right product on the right ground". Your Channel Seedsman is ready to work with you through the product positioning decision-making process.

Product Positioning

Some important seed product agronomic traits to consider include insect, disease, and herbicide resistance; good emergence and seedling vigor in cool soil environments, and standability. Product positioning can be a joint discussion between you and your Channel Seedsman. Listed below are just some of the factors to consider for each of your individual fields prior to having that product selection discussion.



Soil Texture, Drainage, and Fertility Levels. Clay, silt, sand, or a combination of those soil textures comprise soil types. Heavy clay soils may benefit from products that have strong emergence. Products with drought tolerance may be preferred when planting in sandy soils. Consider soybean products treated with a fungicide and/or insecticide seed treatment if planting in poorly drained or high clay content soils, especially with early planting.

Phosphorus (P) contributes to root establishment and potassium (K) is essential for stalk strength. If you have some fields that are low in P and K levels as indicated by recent soil tests, consider selecting seed products with good root ratings for low P testing soils and good stalk ratings for low K testing soils.

Disease and Insect Pressure. Review past insect and disease issues by crop for each field. Have these yield-reducing pests been an occasional concern or a perpetual problem? Rotation can be an important tool to manage some pest problems. For example, a continuous corn system may have annual foliar disease pressure (depending on the season) and choosing a product with good resistance to gray leaf spot and northern corn leaf blight may be beneficial.

When considering soybean, have soybean cyst nematode (SCN) populations in the past reduced yield potential in your fields? If so, consider selecting a SCN-resistant product. For other disease concerns consider selecting soybean products tolerant to sudden death syndrome (SDS) and/or sclerotinia stem rot (white mold).

Is corn rootworm (CRW) pressure a problem in your area? No matter if CRW pressure is light, moderate, or heavy, damage can occur. Expected CRW pressure coupled with existing crop rotation can influence insect trait(s) preference within a product. Discuss those concerns with your Seedsman when selecting corn products.

Weed Management. Positioning seed products with herbicide tolerant traits may be beneficial for some fields. Consider your existing herbicide program and application timing when making that decision. Also, consider problem weed species and their growth habits (annual, winter annual, biennial or, perennial) and their emergence timing such as early-emergence or late-emergence.

Crop Rotation and Tillage System. Is the field you are planting in a continuous corn system or rotated with soybean or wheat? Some corn products have been identified that perform well in each of these conditions. Specific products work better and can be positioned for success in no-till or minimum-till systems.

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Yield Environment. Knowing your yield potential and yield goal is important. Do you have fields that are low-yield environments, while others represent high-yield environments? Different products can be positioned to maximize yield potential within those varying environments. Review your seeding rates within those environments with your Seedsman.

Summary. Choosing the right products for your farm is the foundation for effective management as it affects yield potential and grain quality. The seed product you choose should be the best match for your environmental conditions, management practices, and risk factors. Ultimately, risk management is one of the primary goals in product selection so that you can be best prepared for the factors you cannot control: weather, environmental conditions, and pest pressures. Consider using the following worksheet to “take inventory” of field-by-field seed product needs, then work with your Channel Seedsman in positioning seed products which can contribute to maximizing your yield and profitability.

Table 1. Worksheet for Seed Product Placement Based on Individual Field Characteristics

Field Characteristic	Seed Product Consideration
Soil Type Drainage pH	Clay or poorly drained soils - consider emergence (especially with early planting), disease tolerance, and consider fungicide/insecticide seed treatment with soybeans. Sandy soils - consider drought tolerance, stalk strength.
Soil Fertility	If low P soils - consider good root ratings. If low K soils - consider stalk strength.
Disease	Select products based on past and potential future disease problems. If continuous corn rotation - focus on products with good tolerance to foliar diseases. If planting soybean - account for SCN, SDS, white mold, and other diseases.
Insects	Consider insecticide seed treatments if early season soil insects have been a problem. If planting corn - evaluate expected CRW pressure based on rotation and past pressure. Visit with your Channel Seedsman for trait(s) selection. Consider the need for traits to control other above-ground insects such as European corn borer, western bean cutworm, corn earworm, and others. If planting soybean - consider using seed treatments to manage early-season insects.
Weed Management	Select herbicide traits based on current herbicide program, application timing, and present weed species.
Crop Rotation and Tillage	Consider product performance after the previous crop. If no-till - consider good emergence and standability, disease rating, and overall plant health.
Yield Potential	Evaluate whether the field is a "low-yield" or "high-yield" environment. Product selection considerations include drought tolerance, populations, plant health, maturity, disease, and insect ratings.

Sources

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