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U.S. SOY INGREDIENT BUYER'S IMPORT MANUAL

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INTRODUCTION:

The United States, Brazil and Argentina are the world's largest producers and exporters of soy and soy products. Soy from the United States is often the most desirable for world buyers due to price, quality and dependability. The value of U.S. business culture, its commitment to contract integrity and product quality is highly sought after. However, for many first time soy importers, securing U.S. suppliers can be challenging.

Sourcing U.S. processed soy products such as soy protein concentrate (SPC) and Isolated Soy Protein (ISP) can be especially difficult because of the small number of suppliers. Often, some U.S. suppliers will not return phone calls from small, medium and unknown soy importers. It might strike a buyer as highly unusual. After all, buying a product should not be difficult. Typically a seller is eager and willing to create new sales. In business, it is selling that usually requires effort but buying is supposed to be easy. However, sellers of soy and soy products tend to be skeptical of doing business with unfamiliar entities. What would it take to make a prospective U.S. soy ingredient buyer look appealing to an exporter and be ready to do business? There are a number of common mistakes that inexperienced buyers make when trying to source from the U.S. market. Often, a supplier will notice "red flags" early in a verbal, electronic or face-to-face conversation with a new buyer.

This manual is intended to help soy importers understand the logic of suppliers' skepticism, avoid common mistakes and increase the likelihood of successfully importing U.S. soy products.

SECTION 1:

What is a "UFO" and why do ag commodity salespeople avoid them?

> **By imagining ourselves in the shoes of the salesperson we can gain better insight on how to be seen as credible, viable and qualified.**

A "UFO" is something mysterious, unknown, or strange: an Unidentified Flying Object. In the U.S. soybean industry and the overall ag commodities business, it is common for suppliers to refer to unknown foreign buyers as "UFOs". As a buyer coming to the market to purchase soy ingredients, you should try to avoid this label. That said, many well-intentioned, serious buyers earn this badge as they send the wrong message to a supplier and are quickly dismissed. Suppliers are often contacted by brokers or other so-called middlemen that are seeking product for a foreign end user. Many suppliers view these intermediary agents with disdain as they are often viewed as an entity with no real role to play in the trade or someone that wants to make a quick margin. If you are a manufacturer looking for a U.S. soy product, be sure to clearly state this! U.S. suppliers have had many unfruitful inquiries from "UFO" brokers and middlemen who are unfamiliar with the business and unable to bring forth a viable purchase.

Worse yet, some inquiries are actually from competitors who claim to be potential buyers in order to gain valuable pricing and market information. Unfortunately, those numerous bad experiences have left most U.S. suppliers very skeptical and impatient when dealing with small and unknown importers.

To avoid being dismissed and classified as a "UFO" here are some other key points to consider:

GOOD ENOUGH - The first step is to do your homework. Review your business and fully understand the product you want to buy. Determine the key quality factors that are important to you. Know what quality is good enough and separate this from the quality factors that may be nice to have but not essential. If you communicate only the very top quality to a supplier, it may be unrealistic or cost prohibitive. The supplier will likely know this as they usually supply many in the market. They may dismiss you as an unrealistic buyer because you want a product no one else in your industry is using for one reason or another.

COMMUNICATE END USE - Very often, clearly communicating the intended use of the product will help the supplier quote you the most suitable product. For example, a soy protein isolate used for a beverage is different than an isolate used as a meat extender. Or, a soybean used to make tofu is different than a soybean used to make bean paste.

KNOW THE STATUS QUO - Very likely, you are not the first to seek a particular soy ingredient in your country, industry, or even your market. The first question to ask yourself when seeking to source a new soy ingredient is: "How are others sourcing this product today?" Once you answer this question, you can pursue this same origination channel. By doing this, you can reference the competitor or other party when you seek to source the product. This gives you instant credibility as this other party is successfully sourcing product this way. Armed with this knowledge, you can take what you learn from this experience and approach other suppliers.

BE FORTHRIGHT - Maybe you are the first in your market to seek this product. Possibly no product is moving into your country or region today. Don't apologize for this. Be forthright. Tell the supplier you have never sought this product before and you don't know anyone in your market currently using it. Explain why you want the product. Explain how you plan to use it and why it is necessary. Tell the supplier what you know and what you don't know. Most suppliers will appreciate your forthrightness and want to help. It is extremely difficult to cultivate a relationship with a supplier if you come across as overly secretive.

LESS IS MORE – A common buyer's mistake is believing more is better. Many buyers often overstate their volume interest and exaggerate the volume they seek to buy. However, when it comes to commodities, more is often less. More means more risk and is often less desirable, particularly when it is a first order and the buyer is unknown. What's most important is to be honest and communicate realistic expectations. Say something like: "My demand may grow to this quantity but today I am looking for this.

PRICE: THE FINAL DETAIL - Everyone wants to know the price. That's understandable. But be patient. Buyers often jump to the price conversation too soon. Don't push a supplier for a price before key details are determined. Very often, price is the last detail to discuss. Terms such as "conveyance," "packaging," "price point," "quality" and "payment terms" all must be determined prior to a price quote as they affect which party bears what risk, which in turn affects price. If a buyer pushes for a price offer too soon, red flags may go up.

SECTION 2: ALTERNATIVES TO THE "COLD CALL"

Prep work and contacts to make before you contact a potential supplier and other ways to approach a supplier.

Okay, you are ready to approach a supplier. You have done your homework. You know the quality, quantity, and general price that might be acceptable. You have at least considered all the essential parts of a potential contract. There are many ways to begin this process and at some point you will need to send an email or text, telephone a potential supplier, or possibly visit a supplier. Without question the unique circumstances of your country, industry, and market will affect this. However, here are some approaches you might employ:

U.S. EMBASSY - Many U.S. embassies have a trade representative whose role is to facilitate trade between U.S. suppliers and your country. Contact the U.S. embassy in your country. Advise them of your interest in sourcing U.S. product. Request an introduction. Most likely, there is a trade attaché who is responsible for your region and can provide you with some direction or in some cases make a recommendation on your behalf.

STATE ECONOMIC DEVELOPMENT OFFICE - Similarly, most U.S. states have an office of economic development that facilitates trade from their state to foreign buyers. If you know of a particular supplier you want to contact and know they reside in a particular U.S. state, contact that state's economic development office. Very likely, this office will know of the supplier and can make an introduction for you. If you present yourself as a credible buyer, you will likely earn the respect of these state offices and create an instant advocate.

REGIONAL OFFICE - If your supplier is a large international firm – and many in the world of soy fit this description – it is likely they have an established preference on how to interact with potential buyers in your country. If this is the case, identify either the local or regional office responsible for your geography. In some cases, the firm will not give you the option to source via a different channel. Identify what a particular supplier prefers and work within the system they prescribe. Every supplier is different and often the preference of individual companies changes over time. What was true a few years ago may be very different today. Regardless, it is important to discover and understand the current preferences of individual companies and work within that structure.

WORLDWIDE WEB - Utilize the public sources available on the worldwide web. Employ services such as LinkedIn, as well as company and industry association websites to educate yourself on a particular supplier or sales representative. Frequently, a salesperson will have a profile and possibly contact information established through these sources. If nothing else, review this person's profile.

TRADE SHOWS - Seek out trade shows where potential suppliers may have a booth or be present. Due to travel restrictions and health safety concerns, there are "virtual" trade shows and "virtual" industry events that are popping up and replacing in-person events. Study the list of exhibitors and attendees. Seek out recommendations as to which trade show would best meet your needs. If potential suppliers will be present, it might be worth attending. Trade shows are a great opportunity to meet a supplier in a casual setting. Take advantage of trade shows in your region. Also, there are several trade shows in the U.S., including:

- *IFT Expo*
- *Natural Products Expo West*
- *Natural Products Expo East*
- *Supply Side West*
- *Supply Side East*

SECTION 3:
Terminology

If you are not using the right lingo, "red flags" will go up. Take time to learn the common language and terminology of the trade. Go through the list of contract terms and start filling in the blanks.

Consummating a trade requires reaching a common understanding of several key points. While the details will be determined through dialogue between the buyer and seller, it is important for the buyer to consider these elements of an agreement prior to an inquiry. Some of the key questions to answer include the following:

QUANTITY - What quantity am I seeking now? What could this volume grow to on an annual basis? Be realistic and forthright about quantity.

UNIT OF MEASURE - What is the standard unit of measure used in the industry? Does the industry speak in terms of metric tons, bushels, pounds or something else? Determine the standard unit of measurement used and speak in these terms.

CURRENCY - Are you prepared to buy in your local currency, the U.S. dollar or something else? What is the standard in the industry and the supply channel you are pursuing? Be prepared to buy in the standard currency. Talk to your banker.

PRODUCT DESCRIPTION & QUALITY - What minimal quality is acceptable? What is "good enough"? Am I asking for a quality specification that is realistic? Very likely standard quality specifications exist. Can I make these specs work? If not, what minimal adjustments are necessary?

PRICE - What final cost delivered to my door is workable? A buyer should have some general idea of an acceptable price.

BASIS - The term basis may not be used extensively when dealing with value-added processed soy products, but it is a part of the critical terminology for trading soybeans, soybean meal and soybean oil. The "basis" is simply the price difference between the market price established at the Chicago Board of Trade (CBOT) and the cash price being bought or sold. For example, if the price of soybeans on the CBOT is $9.00 per bushel and the price of soybeans in London is $9.50, the London soy would have +$0.50 basis. Some contracts are initially negotiated and written as Basis Contracts, meaning that the basis is agreed upon by the buyer and seller and locked in, but the CBOT price is left to fluctuate until a later date. If you buy soy with a +$0.10 basis and then sell it at a +$0.20 basis, you have made a $0.10 per bushel margin. Most traders are only focused on the basis price because they are eliminating their market risk by using a hedging strategy at the CBOT. *(For more info about hedging, see the explanation under "Price Fluctuation Risk" in Section 5.)*

INSPECTION - How will the quality be verified prior to shipment? Is a supplier's documentation acceptable? Or, will a third party laboratory conduct a test? If yes, what lab? How will a sample be acquired? Do you want a third party to gather a sample?

WEIGHTS - How will the final weights be determined? Am I comfortable with a supplier's scale?

TRADE RULES - Are there association or international rules that apply to the product and this trade lane? Can I accept these trade rules?

CONVEYANCE - Am I looking for full container shipments? Less than a full container shipment? Who will arrange for the transportation? The buyer or the seller?

PACKAGING - What type of packaging is acceptable to me? Small bags? Paper bags? Poly bags? Totes? Bulk in container? Should the container be lined? Often, the previous cargo hauled in a container is not known.

PRICE POINT - Am I looking for a FOB price? C&F? CIF? Delivered?

Some basic definitions of each:

FOB - Free on Board - Using this term, the seller is agreeing to load product onto the defined vessel (container, barge, ship, railcar, etc) at the defined location specified in the contract. If you buy the soy product FOB, that means that you as the customer are agreeing to take the responsibility to arrange and pay for the freight to deliver the soy product.

C&F / CFR - Cost & Freight - Using this term, the seller is agreeing to load product on the defined vessel and pay for freight to the defined destination. However, the seller is NOT guaranteeing delivery or arrival.

CIF - Cost, Insurance, Freight - Similar to C&F with the addition of insurance to the defined destination.

DELIVERED - Shipped to the destination specified in the contract.

OWNERSHIP TRANSFER - In any transaction, it's important to know when ownership transfers from seller to buyer. For example, product may be en route to a destination in a container, on a vessel and for some reason, the vessel is not allowed at the port of destination. Possibly there is a trade dispute between countries or a steamship line is having financial difficulties or cargo is embargoed due to a pandemic. If product is purchased C&F or CIF, the buyer is still responsible for payment -- even though product has not been delivered.

Here is a high-level summary of ownership transfer point:

FOB - Ownership transfers when the product is loaded on a vessel at the defined place as specified in the contract, usually at origin.

C&F / CFR, CIF - When shipping goods by water, ownership transfers from seller to buyer when the product is loaded on the water.

DELIVERED - Ownership transfers upon constructive placement at the defined destination as stated in a contract.

ROUTING - What routing will the product follow? Will the quality remain intact during transportation? If the transit time is long or takes an undesirable route – say through hot climates such as the equator – will this affect quality?

SEALS - Should the shipment be sealed during transit? Should the contract require this?

INSURANCE - What party is responsible for different points in the journey from origin to destination? Very often responsibility – and liability for loss – changes during different points of the journey. Likely, if the product is in the U.S. and on a truck or on the rail, the transportation carrier will have insurance. However, steamship lines do NOT provide for insurance for the product they carry. Once the product is loaded on a vessel and hits the water at port, no insurance exists unless it is specified in a contract.

Insurance to cover product loss while on a vessel is relatively inexpensive. Whichever entity is arranging for ocean freight can usually provide insurance for product while it's on the water and at the port of destination.

IMPORT - Who will manage destination import requirements and final delivery? Very often a U.S. supplier will not manage this piece of the trade unless they have a local office. What can you learn from an in-country forwarding agent before you inquire about U.S. suppliers?

DOCUMENTATION - What documents will the supplier be required to provide? Typical documentation includes: Bill of Lading, Quality Certificates, Weight Certificates, Certificate of Origin, Phytosanitary Certificate

PAYMENT TERMS - At what point will payment be made and in what form?

DISPUTE RESOLUTION - If problems occur in the trade, how will disputes be resolved? Can a particular trade association or arbitrator be named in advance? What is the industry standard?

This list is not all-inclusive and a buyer does not need to have answers to all of these questions prior to an inquiry. However, all of these questions should be answered and likely will be answered in the form of a contract. Sellers will have a preference for most of the contract terms. Those terms will typically match the common protocol/standards used in the industry.

SECTION 4:

Regional Sales Offices, Optional Origin Contracts, Trading Companies, and Brokers

What you should know about how to access the U.S. market and the roles various entities play.

As mentioned above, some larger U.S. manufacturers may have regional sales offices. The office in your region may be the only channel a manufacturer will sell into your country. If this is the case, respect that decision and work within this communication channel and do not attempt to communicate directly with the manufacturing plant or through another company office.

Be aware the regional office may represent product made in countries other than the U.S. The regional office may want to offer you optional origin product. If you want U.S. product because of the stability of the American market, the reliable year-round supply supported by a world-class transportation infrastructure or because the soy is sustainably produced or some other reason, be sure to specify U.S. origin. If you do not specify U.S. origin, a larger supplier may offer a seller's option to ship from an alternative origin, meaning product from the U.S. or another country. A regional sales office may have an incentive to pursue optional origin contracts to allow for arbitrage and make origin changes when market dynamics change.
An optional origin contract should offer a benefit for the buyer in the form of a lower price as you are giving the supplier the option to source the lowest priced product at time of shipment. Market dynamics and the price structure may change from the time of contracting to the time of shipment. For example, currency fluctuations may occur that create a lower price for a particular origin. Similarly, freight rates may change for one origin to the destination but not the other. Origination costs for whole soybeans may increase in one origin but not the other. An option origin contract will allow the seller to take advantage of these changes. Giving the supplier this option should most always result in a lower price.

A **trading company** may be another vehicle to access the U.S. manufacturing market. Trading companies may provide you a window into the U.S. supply market and be able to offer you product from various plants with different quality and price options. Trading companies most typically take ownership of product and are responsible to you for delivering the promised product.

The trading company may offer a benefit to a buyer. Trading companies may provide price transparency from several manufacturing plants. They may be able to negotiate a better price or more favorable terms because they handle a larger volume of the product than any one foreign buyer may consume. The trading company may have access to better freight channels at a more competitive price – possibly better than the manufacturer! The trading company may also assist you in assembling the required documents to import product into your country.

Alternatively, you may want to employ a **broker**. While at first glance, it may appear a broker is performing the same role as a trading company, there are some key differences. Like a trading company, a broker may offer you a window into the supply market and be able to offer you product from multiple different origins. Also, brokers very often are familiar with current freight rates and the documentation required to import. However, a key difference is that a broker in its purest form does not take ownership of the product. You are still buying product from a different supplier. The broker is sort of a deal maker. The broker is putting you, the buyer, and the supplier together. Brokers can keep you out of trouble and help you with the negotiation price. But in the end, your agreement is with the supplier and it is the supplier that is responsible for fulfilling the terms of the contract.

Note that the term broker is often used and sometimes it may mean something different than your understanding. Be sure you have a clear understanding of the role your supplier is playing and how that supplier fits into the supply chain.

If you plan to be the importer of record, it may be valuable to contact an in-country custom broker to assist in assembling documents required by your country. The role of a custom broker is different than the role of a broker described above. Understanding and proactively identifying the documents required to clear customs before you confirm a purchase may assist you in unnecessary delays or -- at worst -- refusal of product for entry into your country. It is important to specify all required documents in your purchase contract prior to completion of a purchase. Your supplier should be able to provide you with sample documents before you purchase. Just ask. Verify these documents with your custom broker. Do not proceed until you are absolutely certain you will receive all the documents required by your country that will allow you to import the product.

SECTION 5:
Credit and other risk

There is no room for mistakes, misunderstandings or miscalculations when trading low margin commodities.

Everybody likes to get paid. The biggest fear of an ingredient salesperson, large or small, is not getting paid for a shipment. If a buyer can remove this fear, good things will happen, starting with price. No question, buyers who communicate the ability to pay and then actually perform will have an advantage. A buyer that pays quickly and on time will receive the lowest price quotes and receive the best service. In other words, on the surface it may seem like a great deal if the supplier gives you a period of time before you are required to pay, but don't be fooled! In the rare cases when credit is offered, the supplier has also increased his price in order to offset the perceived risk and delay of payment. Small, medium or unknown buyers who inquire about receiving credit from the supplier could be signaling a "red flag" to a supplier and could find themselves at a dead end.

Typically, a U.S. supplier will conduct a credit check on a potential buyer prior to doing business, even if payment is due immediately. Very simply stated, a credit check is a supplier's way of getting to know a buyer. Suppliers want to know who they are doing business with and their general financial condition. A buyer should help the supplier learn about a buyer's company.

THE CREDIT CHECK

In the case of larger suppliers, the ingredient sales person is likely not allowed to conduct a financial assessment or make the decision to offer credit. There is likely a "Credit Department" and they are the ones who decide. For smaller suppliers, the salesperson may be very active in the financial analysis process.

Whether you like it or not, every buyer has a financial profile. In some cases, it's very limited and not much information is available to a potential supplier. The lack of information in and of itself tells a story to a supplier -- and usually it is not a good one. The lack of information means risk and elevated risk means a higher price or worse, no offer.

FINANCIAL PROFILE

Paint the picture you want and deliberately create the financial profile that can be made available to a supplier. A beneficial first step might be to make some key information available. Start with the basics by providing such information as: ownership structure (corporation, partnership, sole proprietorship, etc.), history, scope of operations, banking information and references. Put this together in a simple, easy-to-read document. Or, even better, post it on your website for all to see.

As discussions progress, a supplier may request some basic financial documents in order to make their financial assessment. If they do, this means they are actively pursuing your inquiry. Some documents they might ask for are as follows:

- *Income Statement*
- *Balance Sheet*
- *Cash Flow Statement*

After taking a high level look at the financial statements, the credit analyst will likely do some basic ratio analysis. The most common ratios credit analysts will calculate from your financial statements are the following:

- *Current Ratio*
    - *Defined as Current Assets divided by Current Liabilities*

- *Quick Ratio*
    - *Defined as Quick Assets divided by Current Liabilities*
    - *Quick Assets are the most liquid Current Assets*

- *Debt to Equity Ratio*
    - *Defined as Total Liability divided by Shareholder Equity*

DUN & BRADSTREET

Dun and Bradstreet (D&B) is another common tool used by sellers to better understand a counterparty. If your company is not listed with D&B, consider submitting your information in order to get listed. Credit analysts rely on D&B to get valuable financial and credit information about companies around the world. If you are listed with D&B, you should be ready to supply your "DUNS" (Data Universal Number System) number to the ingredient supplier. When the credit analyst submits your DUNS number on the D&B website, a wealth of information about your company's financial health can be retrieved. Most importantly, D&B issues a credit score to all the companies listed with them. That D&B credit score is very important to credit analysts and is perhaps the single most important piece of data that determines the willingness of a supplier to do business. If you do not have a DUNS number, you can get one here: **https://www.dnb.com/duns-number/get-a-duns.html** (If the above site does not list your country, go to the Dun & Bradstreet homepage from the following link and click the small globe in the upper right corner to select your country/region. **www.https://www.dnb.com)**

THE LETTER OF CREDIT

A letter of credit is perhaps the most common form of payment utilized in international transactions. This is because it provides a safe vehicle for both the buyer and seller. Furthermore, it is mitigated by a third-party bank. A letter of credit (LC or L/C) is a commitment on the part of a bank to pay after a set of defined requirements are met. If you pursue this payment vehicle, start by having a conversation with your bank. At some point, a large, international bank will be involved. Here is a list of some of the very basic participants in a LC transaction:

ADVISING BANK - This is the beneficiary's bank in the United States. This bank receives the documents and forwards them to the applicant's bank.

APPLICANT - That's you, the buyer. The applicant applies to a bank for an LC. Be prepared to have the ability to pay in cash or have a line of credit in place with a bank to make payment.

APPLICANT'S BANK - This is the bank that will manage the transaction. Sometimes this is also referred to as the "issuing bank". The applicant along with the applicant's bank will write the terms of the LC and provide them to the supplier for acceptance. This bank will review all the documents prior to payment and will determine that all the written LC requirements have been met.

BENEFICIARY - This is the supplier, the seller who gets paid. The beneficiary is responsible for delivering all the required documents to the bank.

BENEFICIARY'S BANK - This is the seller's bank and sometimes acts as the "advising bank or the "confirming bank."

Note - It is common for supplier to request a confirmed LC, especially if a buyer is new or there are some uncertainties about a trade. It could be political trouble in a country, economic strife, or general uncertainty of the bank or buyer's ability to perform. A confirmed LC is a guarantee on the part of the beneficiary's bank that this bank will pay if for some reason the applicant or the applicant's bank does not pay. The confirming bank is usually a U.S. bank or a first-class bank outside the U.S. This guarantee has a cost and is dependent upon banking relationships and ultimately the credit-worthiness of the applicant. The reputation of the confirming bank is important. The beneficiary often relies on the confirming bank to assess the risk and ultimately to perform.

PRICE FLUCTUATION RISK

People new to commodities trading often understand the risks associated with price fluctuation but may not understand basic hedging principles used to mitigate the risk. An understanding of hedging will allow you to come across as knowledgeable and could save you from taking significant financial risk. In this section, we will give a very high level explanation of how hedging can minimize risk of price fluctuation. Let's use an example of someone who is betting on the outcome of a coin toss. When a coin is flipped, it can do two things:

1. The coin can land on side A.
2. Or, the coin can land on side B.

Commodity prices are similar because they can only do two things. Prices can go up or they can go down. If you place a $1 bet with your brother that a coin will land on side A, you have assumed some risk because the coin can potentially land on side B, causing you to lose your $1. In a similar way, if you purchase a commodity you are exposed to price risk because the market price of the commodity could go lower before you have a chance to resell it. In both scenarios, your risk can easily be completely eliminated with a very simple hedging strategy. How can this be done? In the coin toss example, you bet your brother that the coin would land on side A. To eliminate your risk, you can simply bet your sister that the same coin will land on side B. When the coin is flipped, no matter the outcome you will lose a $1 from one sibling but gain $1 from the other sibling. In the example of the soy buyer, she takes on risk when she locks in the purchase price of the soy she is buying. How can this risk be eliminated? Just like in the coin toss example, a "bet" needs to be placed on the opposite potential outcome. In other words, the buyer can eliminate her risk by simply locking in the sale price at the exact same time she locks in her purchase price. But how can this be done if the legwork for the sale has not yet transpired? That's where the Chicago Board of Trade (CBOT) plays a critical role. At the CBOT there are always willing buyers and sellers of soy at every given moment during trading hours. Since all soy prices have their foundation from the established market price at the CBOT, a soy buyer can eliminate the risk of price fluctuation by placing a sell order at the CBOT at the exact same time that soy products are purchased for future shipment. You might be wondering how a person can make money off of price fluctuations if he is truly hedging his price risk. The answer is that hedgers do not make money off of price fluctuations. There was no money being made in the coin toss example either. The way soy hedgers make their money is by adding value to the product. For example SPC becomes more valuable after it is turned into aquaculture feed. ISP becomes more valuable when it gets included in a recipe to make healthy snacks.

SECTION 6:
Overview of the U.S. Soybean and Soy Product Market

Being an educated buyer will not only help you make better buying decisions for your business, it will also communicate to the supplier your credibility. This will increase your chance of receiving a competitive price quote. Having a general understanding of the U.S. soy market will give you a firm foundation from which to make buying decisions.

The soy protein product market is complex with many players and many variations of products available. For example, isolate for beverages is different than isolate for meat extension. Typically the supplier will help you find the exact soy protein product that fits your needs.

All soy products and players have one obvious key ingredient in common, soybeans. This common base links the price of all soy products to the underlying price of soybeans. Furthermore, the supply and demand dynamics of each individual product such as soybean meal, crude oil, and Isolated Soy Protein (ISP) are all interconnected. Movement in one affects the other.

The world price of most all soybeans, with the exception of organic, fluctuates with the soybean price set on the Chicago Board of Trade (CBOT). As the price of soybeans moves up or down on the CBOT, so too will the cost of soy products. That said, highly processed or refined soy ingredients are less impacted than products such as soybean meal and oil as many of the manufacturing costs are relatively high and somewhat fixed.

On organic soybeans, prices are less transparent. Organic soybeans lack an organized exchange to set the base price and transfer risk. Regardless, organic prices fluctuate with supply and demand just like conventional soybeans do. As a result, prices tend not to fluctuate as much and are more difficult to discover.

Soybeans are a wonderful source of protein and oil because of their abundance and relative low price to other options. Soybeans are the largest world protein and oilseed crop. While many other sources of protein have emerged in recent years, soy is here to stay because it is such an efficient source of protein in terms of price and quality. Soy is a highly nutritious source of nitrogen due to its amino acid profile and its similarity to the nutritional value of meat.

Soy protein products are produced for human, animal, and aquaculture consumption. In the manufacture of soy protein products, the oil is first extracted from the whole soybean. This oil is used for a variety of products including cooking oil and soy diesel. The demand for these products and the resulting market prices will impact the price of soy proteins either favorably or not.

SOYBEAN: PRODUCTION CYCLE & GENETICS

In the United States and throughout the northern hemisphere, soybeans are generally planted in April or May and are harvested in September or October. Generally speaking, August weather is a key factor determining the quality and quantity of soybeans. Good moisture and mild temperatures in August are good for the development of the soybean. Farmers choose genetics that are suited for their growing region. Farmers will choose soybeans based on different maturity groups that vary by latitude. For example a soybean that performs well in northern Iowa, may not perform in southern Illinois. Farmers are also concerned about a soybean plant's ability to resist diseases such as phytophthora root rot or downy mildew or insects such as aphids.

Many farmers employ various genetically modified (GMO) soybeans , most commonly for resistance to particular herbicides. Modified genetic traits are "inserted" to particular varieties to create some desired outcome. Farmers are very willing to plant non-GMO soybeans on demand if asked. In turn, many grain elevators and processing facilities have procedures in place to identity-preserve non-GMO soybeans and soy products throughout the system. Third-party certifications are available. The Non-GMO Project is a U.S.-based organization that can verify non-GMO status. In the end farmers and processors want to supply you with the product you want.

Soybeans are generally harvested at 13.0 -14.0% moisture. However, soybeans tend to dry down in the field very fast and it is often difficult for a farmer to control moisture content. In fact, the moisture content of soybeans will fluctuate up and down while still in the field! Similarly, the moisture content can fluctuate some after harvest while the soybeans are in storage, moving up or down as the ambient temperature and humidity changes.
Soybeans are free-flowing and can be moved easily with augers or belts. Soybeans tend to store well until use. Many farmers use air without heat and run fans to keep soybeans in condition. Heat is rarely used. If heat is used, it must be used at low temperatures to prevent fire or damage to the soybeans. If soybeans are stored for any length of time, the general preferred moisture content is maximum 13.0%.

SOY PRODUCTS: COMMERCIAL VS. NATURAL

Another key point of differentiation in soy products are some basic techniques used in the manufacturing process. A key difference are those products derived from solvent-extracted oil and those derived from expeller-extruded oil.

Hexane is the most common solvent employed by the industry to extract oil. It is a product extracted from petroleum and is a highly flammable, colorless liquid that gives off a subtle, gasoline-like odor. Hexane is highly efficient, extracting more oil with less energy than the mechanical process. Any hexane remaining after oil extraction is removed from the oil with a system of steam and vacuums. The meal is toasted to remove any remaining hexane. Hexane extracted soy products are by far the most common with this being the dominant product offered by large international manufacturers.

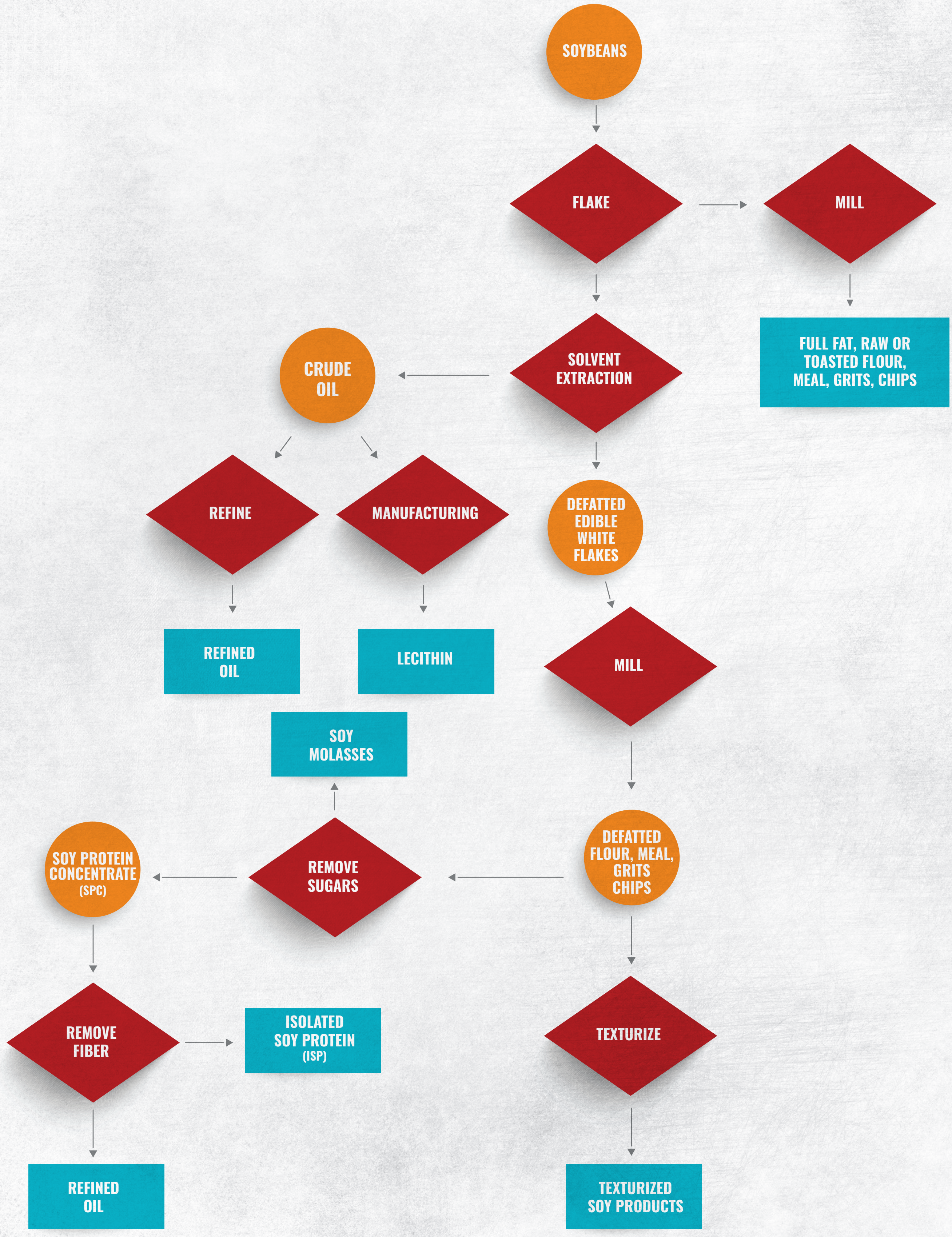
The expeller-extruded method of extracting oil is the non-solvent, mechanical technique commonly used. It uses a system of pressure and heat to extract oil. It is described by some as more natural and can be labeled as organic. It is not as efficient at removing oil and often uses high energy and requires significant plant maintenance. The resulting expeller-extruded product may perform differently than solvent extracted products. One key difference is that they will contain a slightly higher oil content. However, the oil contains energy/calories and has a nutritional value. Often livestock producers such as poultry operations will pay a premium to source soybean meal containing some soy oil.

PRODUCT FLOW

The following diagrams illustrate the basic soy products and how they are made.

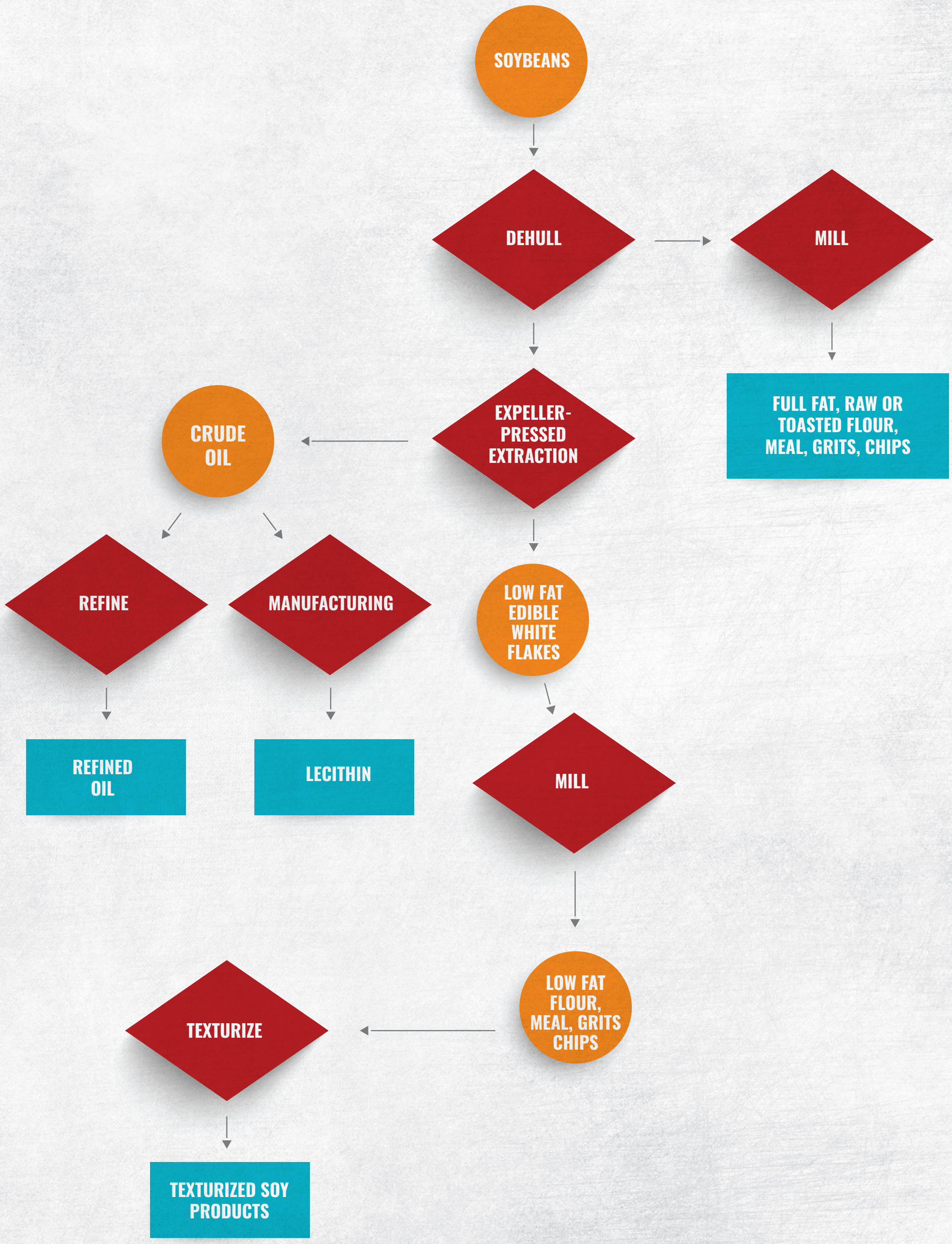
COMMERCIAL PROCESSING

(HEXANE EXTRACTED)



NATURAL PROCESSING

(EXPELLER PRESSED OR FULL FAT)



By now you may have already noticed that countries around the world may not be using the same terminology as you when describing soy products. For example, in the U.S. the term "soybean meal" refers to the basic ground soy protein product that has at least 44% protein and often does not contain much (if any) soybean oil. However some countries outside of the U.S. refer to it as "soybean cake" instead of soybean meal. When discussing soy products, be sure all have a common understanding of the products being discussed.

In this section, we will outline the various types of soy protein products, the basic characteristics of each and their typical standards/specifications.

SOYBEAN MEAL - Soybean meal typically contains 44% or 48% protein and contains little or no soybean oil. Its main use is is animal feed. The difference between the lower and higher protein content is almost always determined by the amount of hulls that are blended back into the meal. One of the first steps in processing soybeans is to remove the hulls. If you are not familiar with hulls, it is the thin skin found on the outside of the soybean. (It can be compared to the thin skin you find on a peanut after you open the shell.) The hulls are high in fiber but contain little protein. Typically hulls contain 10-12% crude protein, 36-40% crude fiber and 9-13% moisture. After hulls are removed, they sometimes are sold as a stand-alone product for cattle feed. However, they are most often blended back into soybean meal which decreases the protein content. The 48% protein soybean meal will have very little or no hulls. The 44% meal on the other hand almost always contains hulls.

DEFATTED SOY FLOUR AND GRIT - Defatted soy flour and grit contains 52 to 54% protein. Its primary applications are baking, animal and pet food, functional foods such as nutritional bars and energy drinks, industrial applications and meat alternatives.

TEXTURED SOY FLOUR - Textured soy flour contains 52 to 54% protein. Its primary applications are as a meat alternative and in animal and pet food.

SOY PROTEIN CONCENTRATE (SPC) - SPC contains 62 to 69% protein. Its primary applications include meat alternatives, animal and pet food, industrial applications, functional foods and dairy alternatives and beverages.

ISOLATED SOY PROTEIN (ISP) - ISP is sometimes called Soy Protein Isolate or SPI. It contains 86 to 87% protein. Its primary applications include meat alternatives, industrial applications, dairy and alternative beverages, animal and pet food, functional foods and baking.

SOY LECITHIN - Soy lecithin is a product extracted from soybean oil during the refining process. It is commonly used as an emulsifier and when further processed is a common baking product. It is used in various confections, dairy products and instant foods. Most chocolate contains soy lecithin.

SOY MOLASSES – Soy molasses is a brown viscous syrup with a typical bittersweet flavor. It is a byproduct created when removing sugar/carbohydrates from defatted soy in order to get soy protein concentrate. Soy molasses can be used as a feed ingredient in mixed feeds as pelleting aid, added to soybean meal, mixed with soy hulls and used in liquid animal feed diets.

TYPES OF SUPPLIERS

The types of suppliers can vary greatly depending on the type of product sought.

Whole Soybeans - Many supply options exist for whole soybeans. It can range quite literally from the farmer to large international trading companies. As with any transaction, be sure the supplier you are working with has experience in international trade and sufficient expertise to gather the required documents. Know that sourcing soybeans directly from a farmer does not necessarily guarantee the lowest price or best quality. Farmers are very often locked into local price economics that may make their soybeans too expensive to export. In addition, farmers may not have the ability to access low cost freight or economies of scale for loading volume. Generally speaking, farmers are not interested in getting involved with exporting their own soy because of the risk, complexity and tough competition with other firms who have the required scale and experience. That said, technology and the common use of shipping containers for exporting soybeans over the past 15 years have created a new group of smaller-sized soy exporters. If the trend continues, larger U.S. soybean farmers may one day soon find themselves in a position where it is worthwhile to export their own soybeans. Value added/specialized and niche soybean varieties tend to allow smaller entities to become profitable exporters.

Commercially Produced Soybean Meal & Crude Oil - There is a limited number of very large companies that manufacture solvent-extracted soy products. Most large-scale suppliers can offer product to foreign buyers. U.S. or international trading companies may be able to supply as well.

Naturally Produced Soybean Meal & Crude Oil - Relative to commercial production, there are many suppliers of expeller-pressed or full-fat products. Their capabilities to sell to foreign buyers will vary greatly. Many have a level of skill and experience in exporting products. Others may not. To access supply in this market, you may want to work through a trading company.

CONCLUSION

Being prepared and being knowledgeable of general trade practices will be extremely helpful when trying to source U.S. soy and soy products. Here is a list of do's and don'ts.

DO:

- Be honest and forthright with information.
- Explain to potential suppliers how you intend to use the product. Tell them what you are using today and why you want to source this particular product.
- Tell your story. Freely offer information about yourself and company, including detailed financial information. Make sure your supplier has a clear picture of who you are and perhaps most important your ability to pay.
- Educate yourself. Take the time to learn and understand basic terminology used in the soy industry.
- Verbalize your request. Be ready to articulate exactly what product quality and volume you seek.

DON'T:

• Avoid coming across as a "UFO" or as a cavalier broker by being overly vague and secretive.

• Don't expect a supplier to finance your operation. Avoid asking for credit terms. Be ready to pay immediately.

• Don't try to impress a supplier by conveying excessively large volume potential above and beyond what you realistically need.

• Don't ask for extraordinary quality that may be impossible or overtly expensive to supply. Ask for what's good enough.

• Don't push a supplier for a price before key details are determined.

Above all, stay positive and do not be discouraged! All worthwhile long-term relationships take time to cultivate. While it may seem overly difficult to land a purchase contract, many of your competitors around the globe are facing the same challenges. When you persevere, you are giving yourself a competitive advantage over other companies who give up easily.