



# **TASK AND LABOR RISK MAPPING STUDY HYBRID CORN AND SUNFLOWER SEEDS IN ARGENTINA**

Prepared by Fair Labor Association

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## I. INTRODUCTION

The Fair Labor Association (FLA) commissioned two independent external experts – Corinne Adam, an independent consultant, and Lynda Diane Mull, Executive Director and President of the International Initiative to End Child Labor – to conduct a task and labor risk mapping study of hybrid corn and sunflower seeds production in Argentina. The aim of this study is to better understand the production processes and map labor risks in the corn and sunflower seed production in Argentina.

In this study, labor standards risks are mapped at three levels:

- Country (local conditions, labor laws, etc.)
- Supply chain management systems (code awareness, training, etc.)
- Farm (tasks, working conditions, etc.)

Desk research was conducted prior to field visits to analyze publicly available data and to draw an initial social portrait of the situation in Argentina. Preliminary contacts were made with several external stakeholders in Argentina, including the Ministry of Labor, UNICEF, ILO, Save the Children and UATRA, to help in planning interviews with stakeholders in the field and collect documents needed for the review. Data was collected from field visits and interviews were conducted from January 23 to 30, 2012 at one farm each in the provinces of San Luis and Santa Barbara. As Syngenta is an affiliate of the FLA with production in Argentina, information was also gathered from their local staff as well as growers.

In the field, data was collected through interviews with the following stakeholders:

- Syngenta national, regional and field staff;
- Growers and managers of one farm producing corn and sunflower seeds;
- Fourteen migrant contract laborers working at a farm; and
- External stakeholders, such as Ministry of Labor, Observatory within the Ministry of Labor conducting research on child labor and labor conditions of workers in Argentina, UNICEF, and a national NGO (Consciencia) operating programs for children and migrants in the researched areas.

The field visit took place during the growing and harvesting seasons for corn and sunflowers, but missed the peak periods of work performance by seasonal workers in corn and sunflower fields. Due to the large distances to reach farm sites and the limited timeframe (four days in the field), it was not possible to review corn and sunflower labor activities or other activities performed by third party subcontractors. Further studies will be needed to observe seed production processes and associated risks during the peak growing, harvesting and processing seasons for corn and sunflowers; interviews with subcontractors within the supply chain related to pesticide application, irrigation, land preparation, harvesting and transport; observation of recruitment process used by labor contractors in Santiago del Estero (province where 85% of migrants workers reside); and verification of data collected through interviews. Also, in spite of our requests, it was not possible to meet with UATRE, the union representing agricultural workers.

Argentina has recently issued several new decrees, resolutions and laws that impact agricultural workers and seed production in particular. Some of these instruments were released while the team was in Argentina. Particularly since resolutions are evolving and changing based on internal negotiations within the government, it is not possible to reflect in this study all changes in the laws and regulations.

Due to the limited timeframe for the review, the team had to submit requests for documents and answers to questions that were to be provided after the team departed from Argentina. Many documents were provided and questions answered after the team departed Argentina. However, some information requested that is critical to the analysis -- such as demographics on the workforce and information on accidents, injuries and firings/layoffs -- were not received in time for inclusion in this report. As a result, it was not possible to determine if the small sample of workers interviewed is representative of the seasonal workforce.

This report provides a first effort to map the labor risks based on a limited sample of farms and stakeholders. Further visits may be required to observe seed production processes and associated risks during the peak-growing season to obtain a broader picture.

## II. COUNTRY RISKS

### A) AGRICULTURE IN ARGENTINA

Argentina's agriculture has experienced significant changes and diversification over the past decade. The relative value of traditional products, such as beef and sheep, has declined while newer products, such as vegetable oils, have grown in popularity with farmers.

Argentina is endowed with rich natural resources, a highly literate population, an export-oriented agricultural sector, and a diversified industrial base. Argentina is one of the world's major agricultural producers and one of the top exporters of beef, citrus fruit, grapes, honey, corn, sorghum, soybeans, squash, sunflower seeds, wheat, and yerba mate.

Agriculture is one of the foundations of the Argentinean economy although its stature has diminished since the late 1950s. In 2010, it accounted for 9.2% of GDP, one-fifth of exports (not including processed food and feed, which account for another third), and 7.3% of employment. Agricultural goods, raw or processed, generate over half of Argentina's foreign exchange and remain a pillar of the country's social progress and economic prosperity.

Argentina's land size is 2,736,690 sq km (1,068,296 sq miles), with 11.3% being arable land. The Usable Agricultural Area (UAA) in Argentina as of 2009 was 51.3 million hectares. In 2000, there were approximately 420,000 farms in the nation. However, the largest 10% of farms accounted for more than 50% of total production. An estimated 10-15% of Argentine farmland is foreign owned.

Commercial agricultural production was 103 million tons in 2010, of which over 54 million tons were oilseeds (mainly soy and sunflower) and over 46 million tons were cereals (mainly corn, wheat and sorghum). Cereals (corn, wheat, sorghum, plus rice and barley which are produced mainly for national consumption) represented a total area of production of around 210,000 sq km, with an annual production of 47.6 million tons. Oilseeds production, comprised of soybeans (92%) and sunflower seeds (7%), was about 52 million tons with a total cultivated area of around 41,000 sq km.

Corn and sunflowers, the two commodities on which this review is focused, are in the top five commodities cultivated (by harvested production), ranking second (corn) and fifth (sunflowers) overall. Table 1 provides a view of the five most cultivated commodities by harvested production for 2006-2007:

RANK	COMMODITY	AREA HARVESTED (THOUSAND HA)	QUANTITY PRODUCED (THOUSAND TONS)	PERCENT OF WORLD'S TOTAL
1	Soybeans	16,150	47,600	22.0
2	Corn	2,790	21,800	2.8
3	Sugar cane	305	20,480	1.3
4	Wheat	5,507	14,550	2.4
5	Sunflower seed	2,410	3,605	13.4

## B) PRODUCTION CHAIN AND CROP CALENDARS

Corn is grown in the central region of Argentina, with the province of Buenos Aires producing 54% percent of the nation’s total corn output. The state of Cordoba is the second largest producing province, accounting for 16% of the nation’s total corn production. The planting season for corn begins around the first of October and runs through the end of December. Corn generally starts silking in mid-December and continues to do so through the end of January. In Argentina, corn is harvested from the first of March through mid-June. (See Annex I: Argentina Map of Corn Production and Crop Calendar)

Sunflowers are grown in southern areas located 24 to 38 degrees from the Equator. Cultivation of sunflowers extends along very different environments, from hot temperatures to temperate climates, and from almost dry areas (less than 500 mm of rain per annum) to very humid ares (1000 mm). Sunflowers are grown as an alternative

crop in humid areas, often for crop rotation to enrich the soil, but it is a very competitive crop in less humid areas where there is no water available for irrigation. Thus, almost 3 million hectares were planted in Argentina during recent growing seasons. (See Annex II Argentina Map of Sunflower Production)

Operations are highly mechanized for both corn and sunflowers. A pivot irrigation system was most commonly observed. Field camps for seasonal workers in corn that were observed were newly constructed at the end of 2011 in response to new legislation related to farm labor housing. For sunflower workers, where new camps have not been constructed, housing is provided through hotels/motels. Table 2 shows the crop calendar for corn and sunflower seeds production in Argentina.

PRODUCTION SCHEDULE	CORN	SUNFLOWERS
Land Preparation	August – September	August – September
Planting and Crop Protection	September – December	September – December
Vegetative Growth Stage / Irrigation / Crop Protection	November - December	November – December
Flowering/Pollination/ Detasseling/Roughing (four stages)	December - January	December – January
Ear/Head Maturity Stage / Irrigation	February - March	January – February
Harvesting / Sorting / Drying (peak stage)	February - May	February – March
Seed Processing	May - August	February – April

## C) LABOR PROFILE, EMPLOYMENT AND POVERTY

According to official statistics of the Instituto Nacional de Estadística y Censos (INDEC), by mid-2005, poverty in Argentina had dropped to 38.5%, down from a massive 57% at the peak of the economic crisis in 2002. A total of some 14.7 million Argentines still live in poverty. Extreme poverty is estimated to still affect some 5.2 million people.

The labor force is estimated at 16.54 million (urban areas only). Industry represents 23% of the labor force by occupation, services 72%, and agriculture 5%. The agricultural labor force represents 7.3% of those who are economically active. Unemployment fell to 7.8% in 2010 and underemployment to 11.9% (as of 2005) of the working-age population. Despite improvements, unemployment among young people between 15 and 24 is particularly high (total 21.2%, males 18.8% and females 24.7%).

Gender inequalities remain considerable. Women's salaries remain 30% lower and their income per hour 10% lower than men's. Poverty affects women in particular, and 20.6% of households with children are headed by women providing their total income, out of which 66% are poor and have no support for raising children.

An estimated 57,000 households or 485,460 individuals have been identified as belonging to an indigenous group. Thirty-one different indigenous groups have been identified, with Mapuche, Kolla, Toba, Wichi and Guaraní, the most numerous in that order.

Enormous regional disparities are evident in the country. The Northern provinces have the highest rates of poverty and indigence. In terms of competitiveness and productive development, the Northern provinces, especially Formosa, Santiago del Estero, Chaco and Corrientes have much lower competitiveness and productivity indices.

#### **D) LABOR LEGISLATION AND REGULATIONS GOVERNING EMPLOYEES**

Argentina is a Federal State. Under the country's Constitution, the National Legislature (i.e., the House of Deputies and the Senate) can adopt labor legislation with national coverage. Each province functions as an independent State and has the authority to

adopt its own legal requirements that provide increased protections as long as the national laws serve as the minimum level of coverage. Some provinces, such as Santa Fe are known for its higher protections while other areas, such as Santiago del Estero, are known for their weaker protections, low incidence of taxation, and failure to enforce national laws.

In 1974, a consolidated set of laws on contract employment known as the Ley de Contrato de Trabajo (LCT) was created; the LCT has subsequently undergone major revisions over the years. The LCT is a very detailed regulation (around 300 sections) that deal with employment contracts, rights and obligations of employers and employees, special employment contracts, remuneration and protection of wages, hours of work, public holidays and paid leave, maternity protection, minimum age and protection of young workers, suspension and termination of employment contracts, and transfer of enterprises. Under the Constitution, the Government is empowered to issue instructions and rules necessary for the enforcement of the laws of the nation, without altering their spirit. Only in exceptional circumstances, the President can issue decrees on grounds of necessity and urgency, provided such is decided by a general agreement of ministers who shall countersign them together with the Chief of the Ministerial Cabinet.

**Law on Contract Employment:** Argentine labor law allows for the following types of labor contracts: indefinite, fixed period, extraordinary/special services, seasonal labor, and part-time labor contract. Employers may hire workers for activities performed seasonally. These contracts are considered to be contracts for an indefinite period, having periods of activity (the in-season period) and periods of recess. The worker has the right to be taken on at the beginning

of each season simply because he/she was employed during the previous season. During the recess period, no obligations or rights exist between the employer and employee. The general principle for labor contracts for an indefinite period is that all labor contracts are considered to be for an indefinite period, unless the parties agree to a fixed duration because of special circumstances. All indefinite term labor contracts begin with a trial period of 3 months, which allows either party to terminate the relationship during such period without just cause, and without the employer having an obligation to make any severance payment. Both employer and employee must provide a 15-day prior notice if they decide to terminate the employment during the trial period.

**Hours of work:** The legal working time is eight hours per day and forty-eight hours per week. However, the regular working week may not exceed 44 hours for day work, 42 hours for night work and 36 hours where work is considered hazardous or performed in unhealthy environments because work is normally not permitted on Saturday afternoon (after 1pm) and Sunday. However, exceptions to this rule can be authorized by local government and, in practice, it does occur. Timetables stating the employee's work schedules must be posted in a clearly visible manner for the information of all employees.

**Overtime pay:** Hours of work in excess of the basic working schedule need to be paid at overtime rates. The overtime rate is equivalent to a 50% surcharge (time and a half) on the normal wage for work performed from Monday until 1pm on Saturdays. After 1pm on Saturdays and all day on Sundays and holidays, the surcharge is 100% (double time). Night shift workers do not receive overtime pay for night work. Part-time workers cannot work more than two-thirds of the normal working schedule and are not allowed to work overtime hours.

**Minimum age of work:** The law forbids employment of minors 14 years of age or younger in any kind of activity. The employer cannot hire employees under 16 unless the business employs only members of the employee's family or it obtains an express authorization from the Ministry of Labor. In such case, only minors between the ages of 14 and 16 can work.

Persons from the age of 16 to 18 are considered to be minors. With the consent of their parents these minors may become employees under labor contracts. An employee who is a minor is entitled to the same remuneration as an adult for an equivalent workday with tasks similar to those of an adult. All minors are, however, restricted to a 6-hour workday and a 36-hour workweek and may not work at night between 8pm to 6am. Further, they are entitled to a rest period of two hours in the middle of the day. Before hiring a minor, the employer must obtain a medical certificate stating that the minor is fit to perform the work demanded. If the employer does not comply with the above conditions, he/she will have strict liability with respect to accidental injury, regardless of whether or not the employee is negligent.

Minors can be authorized to work in businesses where only members of the same family are employed, provided that the business is not engaged in difficult or hazardous work. School is compulsory generally to age 18. Employers are not permitted to employ minors under 18 who have not completed compulsory schooling, except when the public authority has expressly authorized the minor to perform work, provided that his/her work is indispensable for their family or own maintenance, and that the minor has completed a minimum level of school (around 7th grade).

**Female Employees:** The law guarantees that female workers receive equal remuneration for equal work and protection against discrimination in employment based on gender or marital status. Provisions exist for paid maternity leave and requirements for hiring the employee back after maternity leave is finished. Job protection is guaranteed to all female employees during gestation, after legal notification to the employer; workers are entitled to severance package and one year's salary if dismissed 7.5 months before or after birth of a child. Further, for up to a year after the birth of a child, the mother is entitled to a half-hour break twice daily to breast-feed her child. In practice, employees come to work an hour later or leave an hour earlier. By law, female employees are entitled to a two-hour rest at midday. This rule is generally not enforced and can be eliminated with the approval of the Ministry of Labor.

**Registration in the Labor Registry System:**

All employers and employees must be registered in the Labor Registry System (LRS) of the Federal Administration of Public Income (AFIP). The employer must ensure that the employee is correctly registered in the LRS, issue properly documented salary payments with receipts, and take out a group insurance policy for all employees.

**Employee Registration Book:** The employer must record employee data in a book, which is stamped and numbered by the Ministry of Labor, commonly known as “the employee registration book.” The employee registration book must record basic data on all employed personnel, such as employee's name, marital status, date of employment and salary. Fines and penalties may be levied on employers if information is not accurate and up to date.

**Sub-contracted Personnel (Outsourcing):** Special care must be taken when sub-contracting personnel from other companies in Argentina, since the recipient company

may be held jointly liable with the supplying company for any labor and social security claims that may arise. The recipient company may, however, avoid such liability if it verifies that the sub-contractor has the following documentation in good order in respect of the persons supplying the services:

- Unique Labor Identification Code number (Código Único de Identificación Laboral) for each worker rendering services;
- evidence of relevant salary payments;
- stamped copies of the monthly social security payments made to the relevant bank;
- the account number of the bank into which the money is deposited; and
- a certificate of insurance accrediting coverage of the worker for labor risks.

If any such documentation is unavailable, the recipient company must inform the sub-contractor and request that the omission be corrected. If a recipient company does not do this within one month, it may be held jointly liable for any labor claims that may arise in respect of the employees rendering the services.

**Minimum Wage:** As of January 1, 2011, the minimum wage is AR\$ 9.20 pesos per hour for daily workers and AR\$ 1,840 pesos for workers earning a monthly salary for full time legal work. Apprentices and part-time workers can be paid less than the minimum wage.

**Mandatory Semi-Annual bonus or “aguinaldo”:** The law requires that every semester (in June and December of each year) a bonus be paid to the employee equal to 50% of the highest monthly wage the employee received during the previous six-month period. This bonus is referred to as “semi-annual bonus,”



“thirteenth salary” or “aguinaldo.” Small and medium sized businesses can pay the “aguinaldo” in three equal parts.

**Other Compensation:** Workers may receive other forms of remuneration in exchange for his/her services under an employment contract. The usual form of payment is some form of monetary payment. However, payments in-kind, such as lodging or gifts, may qualify as a form of remuneration. Remuneration in-kind cannot exceed 20% of the employee’s salary. These other forms of compensation are taken into account in calculating the relevant social security and union contributions.

**Work-Related Accidents and Injuries:** Law No. 24,557 (LRT) established a system to reduce workplace risks and to indemnify employees who become ill or injured at work. The law requires employers in the private sector to insure all of their employees against accidents at the workplace and when traveling to and from work. Employers either must provide insurance through a Labor Risk Insurance (ART) entity or provide their own insurance to employees to meet requirements set forth by the national insurance regulator. Monthly payments are made by the employer and calculated based on the employer’s payroll and vary according to the statistical level of risks that result from the activity of each employer. If an accident or injury occurs, the ART must compensate the injured worker in accordance with the requirements of the LRL, and must also provide medical attention, medicines and drugs prosthesis and orthopedics, rehabilitation, occupational re-classification, and funeral service benefits, if applicable. The law requires that each insured employer develop a plan for the improvement of health and safety conditions at work. The Superintendence of Insurance (SRT) must approve any such plan prior to implementation by the employer.

**Non-Work Related Illnesses or Injuries:** An employee who is absent from work due to an illness or accident that is not related to work is entitled to collect normal salary for certain periods of time while away from work if notification is provided on the first day of missed work and if available for medical examination if requested by the employer. If the worker complies with the notification requirement, he/she is entitled to receive normal salary despite the lack of work services. This paid period is limited and ranges from a maximum of 3 months to 12 months depending on the employees’ years of service and other criteria. If the illness or accident resulted in the worker being totally incapacitated to work, the employer is required to pay a special compensation, which is equal to the severance payment for dismissal without cause.

**Other Mandatory Insurance:** Employers are required to obtain a life insurance policy for each employee with a minimum coverage of AR\$ 12,000 pesos.

**Social Benefits:** Social benefits are services provided at the employer’s expense to the employee in order to improve the quality of life of the employee and his/her family. These benefits are not considered part of the employee’s remuneration and cannot be substituted by monetary payments. Social benefits are not subject to contributions or salary withholdings, nor are they taken into account in calculating the “aguinaldo,” or the amount of any indemnity in case of termination of a labor contract. The following benefits are considered social benefits: a company’s restaurant facilities; reimbursement by the employer for legitimate receipts for medical and dental expenses incurred by the worker and his/her dependents; accredited reimbursement of the expenses of children’s nurseries utilized by the employee’s children up to

the age of six (if the employer does not provide such facilities); school materials and uniforms provided at the beginning of the school year for the employee's children; reimbursement of the cost of occupational training courses; and reimbursement for legitimate funeral expenses for the employee and his/her dependents.

**Travel Expenses:** Reimbursement of an employee's labor-related travel expenses is required but should not be considered for the purposes of calculating social security, health care or union contributions.

**Labor and Social Security Documentation:**

The employer is required to give its employees salary receipts in two parts, one signed by each party, where all payments and deductions are reflected. The employer is required to keep record of all payments made to its employees in the "Salary and Wages Book" reflecting the information contained in the salary receipts. The employer is required to withhold social security and to pay withholdings and its own contributions to the Argentine Tax Authority (AFIP, Administración Federal de Ingresos Públicos). Failure of the employer to duly and timely register remuneration in salary receipts, the Salary and Wages Book, and/or social security returns (as well as the employee's hire date and all other labor conditions) may expose the employer to fines and other charges.

**Salary Withholdings and Contributions:**

Employers and employees are obligated to make social security contributions for family allowances, medical services, pensions and unemployment benefits. Union dues of 1% to 3%, based on collective bargaining agreements, may be withheld from employee salary payments for those who are covered by such agreements. The withholdings and contributions are required to be deposited in relevant AFIP accounts in banks throughout Argentina. Significant interest,

penalties may apply if these deposits are not completed in a correct and timely fashion.

**Discrimination:** Discrimination in employment on the grounds of sex, race, nationality, religion, political opinion, trade union activity or age is prohibited.

**Collective Bargaining:** Collective agreements are legally binding. Most workers are covered by a collective agreement and, in many cases, such agreements are used for fixing wages.

## E) CHILD AND FORCED LABOR IN ARGENTINA

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Argentina has ratified all of the major international conventions related to child and forced labor and the UN Convention on the Rights of the Child. While the law prohibits child labor and forced or compulsory labor, recent reports suggest that such practices exist. A 2004 government survey revealed that an estimated 450,000 children were working, roughly 7% of children between the ages of five and 13 years old and 20% of children over the age of 14. In May 2011, the minimum age for employment was raised to 16 years of age. In rare cases, the Ministry of Education has authorized a younger child to work as part of a family unit. Children between the ages of 16 and 18 years old may work in a limited number of non-hazardous job categories, and for limited hours, if they have completed compulsory schooling. Legal penalties for employing underage workers ranged from 1,000 to 5,000 pesos (\$269 to \$1,344) for each child employed. Provincial governments and the city government of Buenos Aires are responsible for labor law enforcement. However, enforcement varies widely between provinces.

In rural areas, children worked in family and third-party farms producing such goods as blueberries, cotton, garlic, grapes, olives, strawberries, tobacco, tomatoes, and yerba

mate. Children working in the agriculture sector often handle pesticides without proper protection. Children can be found working in corn fields performing tasks such as detasseling, roughing (clearing weeds and irregular corn), shucking (removing husks from corn), and seed sorting. In urban areas, some children engage in domestic service and work on the street selling goods, shining shoes, and recycling trash. According to government sources, some children work in the manufacturing sector producing such goods as bricks, matches, fireworks, and garments. Children were also found working in the mining, fishing, and construction sectors.

In January 2011, Argentina's tax agency, AFIP, conducted surprise inspections on agricultural production sites operated by multinational corporations Pioneer (part of DuPont) and Nidera. AFIP filed a complaint regarding "slave trade and slave labor" with the Ministry of Labor in the province of Cordoba and with the Judiciary. AFIP reported that worker housing had no electricity and the workers were living in metal huts. The workers at Pioneer's sites were employed by Pioneer's labor contractor, Adecco Specialties SA. The company was also cited for tax evasion.

In January 2012, tax agency AFIP raided a Monsanto Company contractor and reported that it found "slave-like conditions among workers in its cornfields." AFIP also reported that Monsanto's labor contractor, Rural Power SA, hired all its farmhands illegally, prevented them from leaving the fields and withheld their salaries. Further, AFIP reported that the workers also were required to detassel corn for 14 hours a day and buy their food at inflated prices from the "company store." Housing conditions were also reported to be deplorable.

Argentina provides universal birth registration

and citizenship is derived both by birth within the country's territory and from the parents. Parents have 40 days within which to register births and the state has an additional 20 days to do so. Based on a February 2009 decree, the Ministry of Interior is permitted to issue birth certificates to children under age 12 whose births have not been previously registered.

According to a University of Buenos Aires study released in April 2011, 9% of university students claimed to have suffered some form of sexual abuse before the age of 19. According to media sources, approximately 5,000 children are recruited every year for pornography and sex tourism. The minimum age of consensual sex is 18.

## **F) RECENT DEVELOPMENTS AFFECTING AGRICULTURAL LABOR**

Argentina has recently issued several decrees, resolutions and laws that impact agricultural workers and seed production in particular. These were largely introduced in response to the findings from the unannounced inspections that occurred during 2010 and 2011. Copies of the new provisions were made available to the assessment team on January 30, 2012.

RENATRE, the social security program for rural agricultural workers managed by a committee and financed through a levy of 1% of workers' wages, was dissolved by law No. 26727 for rural laborers adopted in late January 2012. Under this new law, the 1% withdrawn from workers' salaries will now be managed by an agency within the Ministry of Labor. "The agency will have a principal and assistant principal, and will have an advisory council that will consist of representatives of workers, employers, the Ministry of Agriculture, Ministry of Science, and social organizations linked to agriculture."

## G) CONCLUSIONS ON COUNTRY RISKS

Based on background research, interviews with external and internal stakeholders and review of national policies and laws, the risk rating of Argentina is at level 3, Moderate Risk. Box 1 contains basic criteria underlying the Country Risk Matrix.

## III. RISKS RELATED TO MANAGEMENT SYSTEMS

Many multi-national companies operate in Argentina in the production of hybrid seeds. Companies have different supply chain management systems. For the purpose of this study, we reviewed Syngenta Seeds' supply chain management structure. The review of Syngenta's supply chain illustrates some of the challenges and gaps in internal management systems that exist in the agriculture sector in general.

Two types of seed production methods were observed in the field:

1. **General administrative rentals:** A company (MNC) rents land from a land owner/grower and oversees the seed production through direct owners/growers and third party sub-contractors. In this scenario, the company contracts directly for services through numerous third-party contractors for labor, land preparation, irrigation, crop protection services, and harvesting. Seed processing is done through the company's own processing facilities.
2. **Company-selected growers:** Company selects and contracts with growers to handle seed production, with the company managing third-party labor contractors who provide workers to the

### BOX 1: COUNTRY RISK MATRIX

- High Risk: The labor rights environment of the country is evaluated at Level 1 when the national law is contrary to international law or FLA principles and benchmarks.
- Medium Risk: Level 2 corresponds to countries where lack of implementation of the local law and some controversies in the local labor code have been raised by various research studies (State department, ILO, etc.).
- Moderate Risk: Level 3 is associated with countries where there is effective implementation of the local law by government bodies, such as the labor inspectors, and lack of any major disputes. It is also the case when implementation of the FLA Code is not hampered by government policies or other factors within the country.
- Low Risk: Level 4 is applied when, in addition to meeting all the requirements of Level 3, initiatives by a country promote best practices (for example the recruitment of disabled people in France).

growers. Growers are responsible for handling production themselves or paying third-party contractors to provide the services.

In both scenarios, to maintain quality, the company exerts substantial control over farmers and the production processes through the supply of foundation seed, managing contracts for labor, fixing of procurement prices, earmarking inputs, and providing quality control supervision. Regardless of the seed production method, the company's field staff makes frequent visits to the fields to check that company standards are being followed in seed production.

According to the interviews, a third type of seed buying proposition is also available, where a company contracts for some processes and buys packaged seeds from a seed processor directly without much visibility of the upstream supply chain. This scenario, however, was not observed in the field and not studied during this assessment.

In order to define the risks, which arise from the supply chain management systems for each of FLA's Workplace Code of Conduct elements, the research team reviewed policies, training, procedures and implementation. The interview framework with management is presented in Box 2.

## A) THE EMPLOYMENT PROCESS

For permanent workers, all basic information related individual workers, -- such as job description, starting date of employment, normal working hours, and organization of working time -- is collected by the employer. This information is maintained by a human resource department staff member and is available for review. This demonstrates that the employer complies with the law. Workplaces usually also have a human resources management system, manual and policies and procedures.

For seasonal (temporary) workers, most companies rely on third party contractors to handle employment of seasonal workers. They have the primary responsibility to ensure compliance with the laws relative to seasonal workers. Each individual worker has a contract that sets out the terms and conditions of employment as a seasonal worker. The contracts detail the wages, hours, transportation, insurance, social security, housing, and other benefits provided. Workers provide forms of identification to verify they are of legal age (18 or above) and copies of the worker's IDs are maintained within the files of the workers. Insurance and social security is paid on behalf of each worker.

Workers are recruited from the same area each year. Because the studied employer paid wages higher than the minimum (actual wage of 145 pesos compared to 121 pesos) as well as better housing and transportation, workers view them as a preferred employer.

### BOX 2: INTERVIEW STRUCTURE

The interviews were structured to allow the analysis of integration of labor standards in the management systems:

- Are the policies transparent to internal as well as external stakeholders, such as families of seasonal workers? How are such policies made visible (e.g., through radio announcements, billboards in the vernacular, drawings, etc.)?
- Are intermediaries, supervisors and managers trained to implement local labor law?
- What kind of trainings, processes, resources, and responsibilities are set up at the farm level to ensure application of local labor law?
- Are the implementers subject to sanctions or incentives (e.g., are child labor prohibitions and related sanctions included in the contract with the seed organizer)?
- What are the stakeholders' views on policy, implementation and actual outcomes?

The largest labor contractor studied during this research uses a complex and multi-layered approach to labor recruitment. It made arrangements with approximately 50 representatives in the region to assist with the recruitment of workers. These representatives (brokers) are compensated on the basis of the number of workers they recruit and that remain employed for the full season. These representatives identify and recommend team leaders that will head up teams (quadrilles) of workers. Each quadrille consists of 18 to 20 seasonal workers. At the end of the year, the labor contractor meets with these representatives (brokers) to discuss issues or problems that arose during the year. No similar session is held with individual workers.

Once at the farm site, the team leaders serve as the immediate supervisor for workers in a quadrille, report the number of hours worked by workers in their quadrille each day, give direction to the workers regarding

where they will work, and notify the labor contractor representative if there are any problems, accidents, injuries or illnesses, etc. In addition to the base worker salary, team leaders are paid a premium based on the performance of the cuadrilla. The premium is paid only to the team leader and the workers in the cuadrilla are not similarly rewarded for their good performance. When reviewing the wage records of the workers, it was found that during the same time period, a team leader could make twice the salary of a seasonal worker.

While the labor contractor has a representative at the farm labor camp, workers view the Team Leader as their supervisor. There is a company-appointed field manager who collects the hours worked from the team leaders. Workers are not asked to sign off on the number of hours they worked or to verify the number of overtime hours worked. The labor contractor reportedly makes payments to a bank account in the name of each worker every 15 days. Workers receive their payment in cash from their bank after the end of the season (37 days in this instance), while they are in transit to their homebase.

## **B) POLICIES**

Multinational companies (MNCs) typically have adopted a global code of conduct that addresses the labor principles embodied in the FLA Workplace Code of Conduct (CoC). In the case of Syngenta, a company affiliated with the FLA, is consistent with the FLA CoC; the code is signed by all its employees to ratify that they are aware of it and is communicated to contractors. For outsourced workers, there is a version in Spanish containing eight principles, “los principios del trabajo justo,” that is communicated to workers. A variety of materials, e.g., posters, leaflets, handouts, and so on, have been

developed and they were made available to workers the week of the team’s visit. The Syngenta global CoC was present and visible at all visited sites for Syngenta operations (national and regional office) and was posted at the farm labor field camp site visited. Further, leaflets were available in the cafeteria area when the team arrived. It needs to be determined is this practice is followed by other MNCs and local companies.

The assessment team examined agreements with labor contractors who handle the supply of laborers for corn and sunflower seed production. The labor contracts include the requirement to comply with applicable national laws, Syngenta’s CoC, the FLA CoC, and human rights declarations and provisions regarding non-discrimination. The contracts also set forth other requirements, such as provision of personal protective equipment (PPE), cell phone for use by workers, training on labor risks, first aid kits, transportation, drinkable water, work clothes/shoes (boots in areas where snakes present a risk to workers), etc.

## **C) TRAINING**

The strategy for disseminating policies from Syngenta headquarters throughout the supply chain at an early stage of development. Syngenta has started to conduct trainings for its own staff and growers on the FLA CoC. The active involvement of Syngenta field staff in implementing the FLA CoC is key to ensure that all actors in the supply chain are trained and engaged in meeting the CoC.

Labor contractors use different systems for the training of seasonal workers on policies. One, for example, uses a 20-minute video during orientation to impart “recommendations” for the seasonal workers they hire. Any training provided to workers, particularly those with limited

education, need to be supported by ensuring that all four modes of learning (visual, hearing, seeing and doing) are covered.

## **D) PROCEDURES AND IMPLEMENTATION**

### ***Grievance Mechanisms***

A hotline has been initiated by Syngenta to allow workers to anonymously file a complaint or report a problem. The workers reported that their main avenue to report complaints is through the team leader. When asked what they do if they have a problem with the team leader, they said that they tried to talk it out with the team leader.

### ***Child Labor***

Child labor is included, by reference, within the Annex of the agreements with labor contractors. While a specific age is not mentioned, in practice contractors only recruit workers that are 18 years of age and older. During the recruitment process, records are collected that require documentation of the worker's age, physical ability to perform work (medical exam), and eligibility to work (legal status to work). If it is discovered that a worker is underage, the worker is immediately sent home. Workers interviewed indicated that while a number of them had worked on the farm before they turned 18, the current practice is that no workers under 18 are allowed to work. They indicated that younger workers, 16 or 17 years of age, might be hired on other farms, but not on the assessed farms.

Time did not permit the team to review the hiring practices of other third party contractors to determine if youth under the age of 18 are being hired and, if so, if there is compliance with restrictions for hours and hazardous work. Reports suggest that youth under age 18 can be found working on small and medium farms that produce a variety of crops, including corn and

sunflowers. Further, the Ministry of Labor has documented that youth can be found operating and performing maintenance on machinery, assisting with application of chemicals, and performing other manual labor activities on farms in many of the provinces where third-party contractors operate. This increases the need for visibility among the third-party contractors and further research of third-party contractors' practices.

The lack of clarity of the policy with regard to minimum age for employment increases the risk among third-party contractors that youth under the age of 18 be hired and hours and conditions of work stipulated under the law exceeded. Without a clearly defined and written policy contained in third-party contracts, the risk that child labor could be employed throughout the supply chain is high.

Having written job descriptions for all work tasks would help to clarify the status of workers between the age of 16 and 18. A good strategy could be to routinely promote job entry and promotion of older youth following their completion of training and reaching the age of 18.

A more in-depth, detailed task mapping and job hazard analysis could serve as a basis for qualifications mapping and enable an assessment of workers who are over or under-qualified. This could also contribute to identifying consistencies and inconsistencies between the ages, qualifications and tasks that need special training due to the hazardous nature of the work. The task mapping begun as part of this report is only a first preliminary step needed to meet this objective. A task and job hazard analysis would help in raising awareness among growers and workers on the risks faced on the job and the important role that education plays in impacting business

in terms of reduced accidents and injuries and related costs, worker motivation, and improvements in quality and efficiency.

### ***Non-Discrimination, Harassment and Abuse***

While there is visibility through the posting of company's global code, there is no specific language in the workers' contracts related to non-discrimination, harassment or abuse. The labor contracts do not state that women are not eligible for employment in field seed production, outside of sorting seeds, but it is the policy in practice.

Labor contractors require that workers undergo a medical exam to determine if they are physically fit to handle the work to be performed. There is no data available on how many potential workers were excluded and the medical reasons for the exclusions. Further examination of the recruitment process is needed to learn more about the nature of exclusions based on medical exams.

Supervisors and managers interviewed do not think discrimination, harassment or abuse are present, particularly because the workers and their team leaders know each other and come from the same region. The perception of harassment appears to be largely associated with sexual harassment.

Women are hired only for work in the kitchen of the cafeteria and to sort seeds at one plant site. For seed sorting, the women workers perform their tasks in a separate building from where males work. When asked why women were not hired for other tasks, management interviewees explained that it was to prevent problems that could occur when men and women are mixed and due to the nature of farm labor housing. Given the dorm style housing and the setup of toilets and showers, it would not be feasible to combine male and female workers at one farm site.

The lack of an effective grievance handling system and the fact that team leaders' premium is dependent solely on the performance of their workers (with workers themselves not sharing on the premium) could, however, contribute to situations of harassment and verbal abuse. Top and middle management have not received training on how to prevent and handle discrimination, harassment or abuse cases. This is a high risk as these individuals oversee and manage a large number of workers during peak season. Training in this area could help prevent abuse cases.

Harassment or abuse and discrimination cases are currently not reported. No information was available on past complaints or the content of those complaints that might have been brought forward by representatives on behalf of the workers.

### ***Health, Safety and Environment***

A clear policy on health and safety is in place for the permanent workforce and for workers in processing plants. There is an accident and injury prevention program with data that tracks incidences of accidents and injuries, lost work days, etc. There is also a report that tracks the nature of accidents and steps taken to mitigate the factors that contributed to the accidents for prevention of future occurrence. Syngenta has launched a "Go Zero" campaign to reach a goal of zero work-related accidents and injuries on job sites. This campaign was visible and efforts to ensure its implementation at the regional office and processing plant evident.

However, this same level of focus is not observable in field seed production. Contracts with labor contractors include a provision with respect to meeting general health and safety standards but no clear objectives or benchmarks are defined. Contracts require labor contractors to provide personal



protective equipment like sunglasses, gloves, shoes/boots, shin guards (in areas where snakes are common), work clothes (shirt/pants), cell phone, training on work risks, first aid kit, and drinkable water.

By law, employers are required to carry insurance coverage for accidents and injury for workers as well as contributions to social security. Workers are provided daily pay in cases of sickness (not work related) or injury (work related) depending on the length of illness or severity of the injury. Workers that have more severe work-related injuries are required by law to be compensated for three to six months after the end of the seasonal work depending on the severity of the injury.

Due to distance and limited time, it was not possible to interview the contractor handling crop protection product applications. According to interviews, the MNC performs direct application of fertilizers (NPK) and stipulates that the application of other crop protection products will be carried out by third party contractors or by the growers themselves. The application of crop protection products is performed using spraying equipment through ground, irrigation and aerial applications.

There is a risk that farm labor camps may be contaminated with pesticides if wind advisory and conditions are not adequately taken into consideration by the third-party contractor. Both farm labor camps visited were located in the center of fields producing corn. One farm labor camp was within 20 meters of a corn field with no presence of a wind barrier (such as trees), and a second was within 80 meters also with no wind barrier

Procedures and a point of contact for managing work accidents are in place when injuries occur that require medical attention. The labor contractor representative has received training in first aid and serves as

a resource person for first level response. For minor illnesses and injuries, reporting and treatment is up to the seasonal worker and the team leader's (supervisor) judgment, although the labor contractor representative is available if needed. However, the labor contractor representative, team leaders and field supervisors have limited knowledge about pesticide exposure recognition and treatment and thus there is a risk that exposure may go undetected or misdiagnosed as some other illness. When illness or injury occurs, transportation is provided to medical facilities, which were 1.5 hours away from the farm labor camp visited. For a list of relevant HSE risks see Annex III.

The quantity and quality of inspections performed by local provincial health and labor government agencies vary widely between provinces. While Santa Fe is reported to have high levels of protection for workers and adequate inspections, the province of San Luis is considered to be less effective, and protection is very lax in Santiago del Estero province. Syngenta utilizes an independent auditor to audit farm labor camps and field operations. Reports are produced and reported on consistent formats, and recommendations for corrections are cited.

### ***Freedom of Association (FOA) and Collective Bargaining (CB)***

Policies on FoA and CB are explicitly included in the agreements with labor contractors. While the policy on FOA is available to the workers, they do not appear to understand what it means in practice or how it could be achieved. Employers (including MNCs) usually have interactions with the rural agricultural workers union, as mandated, and also have a CB agreement through the labor contractor. However, the team did not identify any procedure establishing regular social dialogue with workers to prevent conflicts. While some trainings reportedly

occurred, no copies of agendas or minutes of meetings that would confirm that such meetings or trainings had occurred were kept.

There was no evidence of involvement of worker or union representatives on the farms visited. In fact, the labor contractor and company staff considers the team leaders -- the first level supervisors of the workers -- as the representative of the workers. The only meeting that is held is a post season session with the representatives (brokers) who recruit workers for the labor contractor to discuss how things went during the season. No meetings of this nature are held with the seasonal workers. There is no record of issues raised by the representatives or follow-up as to what was done to address them. There is no indication that seasonal workers themselves have the opportunity to conduct free and fair elections of who would function as their representative.

Even in cases of participative management, a manager still has a hierarchical position with a certain power and control. Collective needs and expectations of workers cannot always be disregarded because of familiarity—real, imagined, supposed or invented. The roles of trade unions and seasonal worker representation (non-supervisory worker representatives) are needed to transmit and explain information from management and the underlying potential consequences on the workers. The more the worker representatives are trained and informed, the more probable it is that workers would be properly informed.

The agriculture sector is very labor intensive during peak season, especially for corn seed production. While working conditions have improved, they remain difficult, characterized by low skilled work, high job demands, and poor ergonomic and physical conditions. For these reasons, promoting harmonious labor relations would be of crucial importance to seasonal workers in this sector.

Despite repeated attempts by the team to meet with UATRE union representatives, this was not possible within the timeframe of our visit. As a result, it was not possible to look into how worker representatives or union members are treated and whether potential sanctions, dismissals, lay-offs, etc., occurred.

### ***Compensation***

The laws governing wages, benefits and overtime compensation for seasonal workers are respected. Workers are reported to be paid at a higher rate than the minimum required by law (AR\$ 145 as opposed to AR\$ 121). Workers insurance, social security and other benefits are covered by the employer as required under the law for seasonal agricultural workers. When there is overtime, compensation is consistent with the requirements of 150% for hours of work after 1pm on Saturdays and in excess of 48 during a work week, and 200% for work on Sundays and holidays.

Hours of work are reported daily to the company staff. The team leaders report hours of work and overtime hours for the seasonal workers. Individual seasonal workers are not provided documentation regarding the reported hours until they receive a wage receipt at the end of the season. Workers do not have a company-issued individual book to record hours. Most workers reported that they do not independently maintain their own record of hours and do not have any idea of the number of hours of overtime they have worked. Workers should be informed about the importance of these documents.

Wages are consistent for all seasonal workers. The assignment of overtime hours depends on the performance of the cuadrilles. If a cuadrille of workers is demonstrating consistent good performance, they will have a higher likelihood of working overtime hours.

In general, there is a compensation system for workers. But, it is unclear what criteria is used, and no real salary grid that supports raises of workers salary levels based on years of employment, performance, etc. exists. The only information taken into account by the management to fix wages is the law and what the labor market will bear. A salary grid could be used as an incentive to recruit and motivate workers and serve as a more effective recruitment mechanism to encourage workers to come back each season.

### ***Hours of Work***

The team did not find policies on working hours in the agreements with labor contractors. The FLA code element on hours of work, however, is visible in the field.

Records of workers and payroll for seasonal workers show the days and number of hours they worked. Team leaders report the hours of work by a quadrille of workers to the company field manager and is verified by the labor contractor representative.

Workers reported they are allowed a 10 minute break in the morning, two hours for lunch, and no break in the afternoon, other than to stop to drink water. Some workers reported they were not allowed to sit down during their working period.

### ***Other***

While the cost for bus transportation to the work region is paid by the employer, the workers are not paid for the two days while in transport.

Workers are provided free housing and on their behalf, a per diem (AR\$ 45), that is provided to a camp cook to buy groceries and prepare food on their behalf. A list of the prices for various food items is visible for workers and posted in the cafeteria area. Workers reported that the food is good and plentiful.

## **IV. TASK AND RISK MAPPING OF HYBRID CORN AND SUNFLOWER PRODUCTION**

Task and risk mappings for corn (Table 1) and sunflower (Table 2) hybrid seed production in Argentina are presented on pages 19 - 23. Task and risk mappings define all tasks and work activities that workers perform within each of the major phases in seed production. The required skills are elaborated and labor risks attached to each step.

**Task and Risk Mapping of Hybrid Corn and Sunflower Production**

Phase of Production	Tasks / Activities	Skills Required	Role of Children, Youth, Adults and related Risks
<p>1. Land preparation (August – September)</p>	<p>Plowing to clear the fields (using machinery).</p> <p>Applying fertilizers (machinery).</p> <p>Tilling land for planting and contouring to prevent erosion, proper drainage and maintainance of sufficient water in the soil (machinery).</p>	<p>Knowledge of handling, maintenance and repair of tractors, disk plows, combines (certificate).</p> <p>Knowledge of contouring of land to promote effective drainage and prevent soil erosion.</p> <p>Knowledge and understanding of growth stages of corn plants.</p>	<p>Company selects plots.</p> <p>Company employees manage the operation and maintenance of machinery.</p> <p>Company-owned machinery used for land preparation and harvesting. Operation and maintenance of other equipment is contracted out to a third-party service provider. Job requires a minimum level of machinery operation and maintenance training. Usually, mechanics perform these tasks.</p> <p>For company-managed farms, women and workers under 18 are excluded from this activity.</p> <p>No observation possible for grower managed operations or third party contractors; unknown if women or youth are involved in this activity.</p> <p>Training to become a mechanic is not accessible to women.</p> <p>Company could have a leading role in opening this type of job opportunities to women by working in partnership with key stakeholders.</p>
<p>2. Planting seeds (September – November)</p>	<p>Machinery operation for sowing seeds for male and female corn plants.</p>	<p>Requires technical skills and ability to ensure regularity in row formation, i.e., straight lines, and proper spacing and setting of male corn plants and female corn plants.</p> <p>Knowledge and understanding of growth stages of corn plants.</p>	<p>In order to ensure quality, these tasks are often assigned to permanent workers with skills as mechanics. These individuals often have specific training in machinery operation or technical school in machinery or engine repair.</p> <p>Further, they have gained experience and more technical skills onsite or as equipment have been upgraded.</p> <p>For company-managed farms, women and workers under 18 are excluded from this activity.</p> <p>No observation possible for grower-managed operations or third party contractors; unknown if women or youth are involved in this activity.</p>

Phase of Production	Tasks / Activities	Skills Required	Role of Children, Youth, Adults and related Risks
<p>3. Application of crop-protection products, including chemical fertilizers (Nitrogen-Phosphorus-Potassium, NPK) and pesticides (insecticides, fungicides and herbicides)</p> <p>(September – December)</p>	<p>Company applies its own fertilizers, but contracted out the application of insecticides, fungicides and herbicides to a third party contractor on the farm. reviewed and where company rents farm land for production.</p> <p>Crop protection products are applied using machinery, crop dusters (planes) and through water irrigation systems.</p> <p>Crop protection product applications are handled by the company's growers under that model of production.</p> <p>Under both models, Company provides direction related to the chemicals to be used on the farms for fertilization and crop production for both corn and sunflowers.</p> <p>Due to the limited time available and long distance to location of the third party contractor that handles crop protection services, direct observation of these activities was not possible.</p> <p>Listed below are the tasks that are commonly performed for application of crop protection products:</p> <ul style="list-style-type: none"> <li>• Selection, preparation and maintenance of protective gear</li> <li>• Determination of wind and other factors influencing drift or contamination outside the spraying area</li> <li>• Posting of areas where application will occur according to local laws</li> <li>• Mixing and loading of crop protection products (insecticides, fungicides, herbicides, and fertilizers)</li> <li>• Loading chemicals into machinery used for application</li> <li>• Clean up of contaminated loading site Proper storage of unused products and appropriate disposal of empty containers</li> <li>• Transport of spraying machinery to farm site where application will occur</li> <li>• Application of crop protection products</li> <li>• Transport of sprayers back to storage site for decontamination</li> <li>• Decontamination, cleanup and maintenance of spraying equipment, protective gear and transport equipment used for transporting spraying equipment</li> <li>• Cleanup and proper storage of protective gear</li> <li>• Showering and change of clothing for workers engaged in activity</li> <li>• Proper washing of work clothes of workers engaged in activity</li> </ul>	<p>Knowledge of environmental protection laws and regulations.</p> <p>Knowledge of Integrated Pest Management (IPM) practices.</p> <p>Knowledge of agro-chemicals, their application, posting requirements, restricted re-entry intervals, required protective gear, and first aid..</p> <p>Knowledge of signs and symptoms of pesticide poisoning.</p> <p>Knowledge of first aid for pesticide poisoning.</p> <p>Knowledge of operation and maintenance of sprayers.</p> <p>Knowledge of use and maintenance of protective gear.</p> <p>Knowledge of proper storage and disposal of pesticide containers.</p> <p>Knowledge of decontamination procedures for the mixing and loading sites.</p> <p>Knowledge and plan for mitigating risks if accidental contamination incident occurs.</p> <p>Knowledge of procedures for maintaining inventory of supplies.</p> <p>Knowledge of record keeping related to applications and accidents and poisonings.</p>	<p>Herbicides, insecticides and fungicides are applied by adults trained as mechanics.</p> <p>There is no involvement of women or youth under the age of 18 in this phase as the process is mechanized. No use of hand pump sprayers reported.</p> <p>However, special attention should be given to issues arising from drift, due to fields near camp where workers reside, and to spraying of fields near where seasonal workers are working. Further, attention to posting of fields treated with chemicals and adherence to re-entry intervals following the application of chemicals in fields.</p> <p>Close monitoring of crop protection activities is needed and all company staff and seasonal workers who work in the fields, should be trained on pesticide worker safety, proper use of protective gear, and on an emergency plan should contamination or acute exposure occur. It does not appear that any of the company field staff or seasonal workers have been trained on pesticide worker safety.</p> <p>Responsibility of quality control is very important as company is directing the distribution and use of crop protection products for its corn production.</p> <p>For company-managed farms, women and workers under 18 are excluded from this activity.</p> <p>No observation possible for grower-managed operations or third party contractors; unknown if women or youth are involved in this activity.</p>

Phase of Production	Tasks / Activities	Skills Required	Role of Children, Youth, Adults and related Risks
<p>4. Irrigation (pivot system observed)</p> <p>(October – December)</p>	<p>Set up irrigation equipment.</p> <p>Moving irrigation equipment from one location to another.</p> <p>Repair and maintenance of water pumps (submersible and other types of pumps).</p> <p>Repair and maintenance of pivot irrigation systems.</p> <p>Repair of electrical connection to water pumps.</p>	<p>Knowledge of pivot irrigation system, maintenance and repair.</p> <p>Knowledge of plumbing.</p> <p>Knowledge of electrical systems.</p> <p>Knowledge of repair and maintenance of pumps</p> <p>Knowledge of use of tractors</p>	<p>Risk of electrocution when working around water and electricity</p> <p>Risk of exposure to chemicals being distributed through irrigation system.</p> <p>Seasonal workers reported that if they ran out of drinking water, they would drink the water and cool off using water from the irrigation system.</p> <p>For company-managed farms, women and workers under 18 are excluded from this activity.</p> <p>No observation possible for grower-managed operations or third party contractors; unknown if women or youth are involved in this activity.</p>
<p>5. Roughing (occurs during growing season to eliminate weeds and irregular plants)</p> <p>(December – January)</p>	<p>Seasonal workers use hoe and/or machetes to clear weeds and cut out irregular plants that may interfere with seed quality.</p>	<p>Safe use of hoe and/or machete.</p> <p>Knowledge of corn growth stages.</p> <p>Knowledge of worker safety.</p> <p>Knowledge of use and maintenance of personal protective gear.</p>	<p>Risk of heat stress and dehydration, due to heat index, sun exposure and heavy work load.</p> <p>Risks of cuts from use of machete and hoe. Risks of injury due to trip hazards / falls.</p> <p>Blisters on hands.</p> <p>Carpal tunnel syndrome due to repetitive motion.</p> <p>Injury to back and shoulders from long hours of hoeing and swinging the machete.</p> <p>Workers functioning without adequate worker safety training.</p> <p>Workers need training on pest identification to assist agronomist.</p> <p>Women and workers under 18 are excluded from this activity</p>
<p>6. Detasseling (pollination occurs naturally by wind blowing pollen from tassel on top of male plants to silks on ears on female plants)</p> <p>(December – January)</p>	<p>Removing tassels from top of male corn plants either manually or by machinery.</p> <p>Requires one seasonal worker per hectare of corn plants if detasseling is done manually. This is done in four stages as the tassels on male plants may mature at different times.</p> <p>Mechanical detasseling is done by machinery that cuts the top of the tassels of the male corn plants. Estimated to take approximately 3 hours per hectare in order to not damage corn plants.</p>	<p>Knowledge of growth stages of corn plants, male and female.</p> <p>Physical ability to perform work.</p> <p>Knowledge of use and maintenance of personal protective gear.</p> <p>Knowledge of worker safety.</p>	<p>Risk of heat stress and dehydration, due to heat index, sun exposure and heavy work load.</p> <p>Risks of cutting hands (if not using gloves) when detasseling.</p> <p>Risk of injury to wrists (carpal tunnel syndrome) based on repetitive motion.</p> <p>Risk of injury to neck, shoulders and arms due to reaching at shoulder level and above to pull tassels from male corn plants.</p> <p>While it is reported that women and youth are not hired to work on company farms for detasseling, women and youth have been reported to perform these tasks on medium and small farms.</p> <p>Women and workers under 18 are excluded from this activity.</p>

Phase of Production	Tasks / Activities	Skills Required	Role of Children, Youth, Adults and related Risks
<p>7. Harvesting (February – May)</p>	<p>Mechanical harvesting using machinery. Not known if seasonal workers assist with any aspect of manually harvest.</p>	<p>Operation of mechanical harvesters. Safe maintenance of mechanical harvesters (because of jams to machinery that occur while in the field).</p>	<p>Risks of severe injury when attempting to clear jams in harvesting equipment while being used in the field. For company-managed farms, women and workers under 18 are excluded from this activity. No observation possible for grower-managed operations or third party contractors; unknown if women or youth are involved in this activity.</p>
<p>8. Transport to company processing plant (February – May)</p>	<p>Operation of trucks in fields to transport harvested ears of corn. Driving trucks to processing plants. Weighing trucks loaded with ears of corn. Driving truck onto ramps for dumping ears of corn into collection areas. Dumping ears of corn into collection areas. Driving truck off ramp.</p>	<p>Operation of trucks. Maintenance and repair of trucks.</p>	<p>Risk of truck slipping off ramp. For company-managed farms, women and workers under 18 are excluded from this activity. No observation possible for grower-managed operations or third party contractors; unknown if women or youth are involved in this activity.</p>
<p>9. Processing of corn (cleaning, extracting, shelling and drying) (May – August)</p>	<p>Initial steps in process collected (based on diagram/layout of Venado Tuerto Seed Processing Plant) Tasks performed by permanent and seasonal workers according to the work to be performed. Approximately 180 workers. Cleaning outer leaves from ears of corn and extracting kernels from husks for drying has to be quickly performed, resulting in process being performed by different shifts on a continuous basis, that is, 24 hours per day, 7 days per week until work completed.</p>		<p>Speculation of possible risks: Poor air quality. Hearing damage due to loud noise level. Trip and fall hazards. Risks of severe cuts and burns to hands and arms when clearing machinery jams and working around machinery. Women and workers under 18 are excluded from involvement in this activity. Forklift-related accidents.</p>
<p>10. Sorting and conditioning of seeds (February – May)</p>	<p>Sorting seeds by size and quality (600 women employed in the Venado Tuerto plant). Treating seeds with insecticides/fungicides.</p>		<p>Women hired to perform the tasks of sorting. Workers under 18 excluded from this activity. Risks associated with conditioning of seeds due to fumigation when insecticide or fungicide is applied.</p>
<p>11. Storing seed in bags ready for shipping (February – August)</p>			<p>Speculation of possible risks: Fall hazards. Forklift-related accidents. Women and workers under 18 excluded from this activity.</p>

Phase of Production	Tasks / Activities	Skills Required	Role of Children, Youth, Adults and related Risks
12. Transporting processed seeds  (March – August)	<p>Loading trucks with pallets of bags of dried seeds using fork lift.</p> <p>Transporting bags of seeds for further processing using dump or other large trucks.</p>	<p>Safe operation of fork lift.</p> <p>Safe maintenance of fork lift.</p> <p>Operation of dump truck.</p> <p>Safe maintenance of dump truck.</p> <p>Knowledge of worker safety.</p>	<p>Women and workers under 18 excluded from this activity.</p>
13. General farm, camp and plant maintenance  (June – November)	<p>General maintenance of farm, camp and plant sites.</p>		<p>Women work in the kitchen in the plant cafeteria in Venado Tuerto. Workers under 18 excluded from this activity.</p> <p>No observation possible for grower-managed operations; unknown if women or youth are involved in this activity.</p>

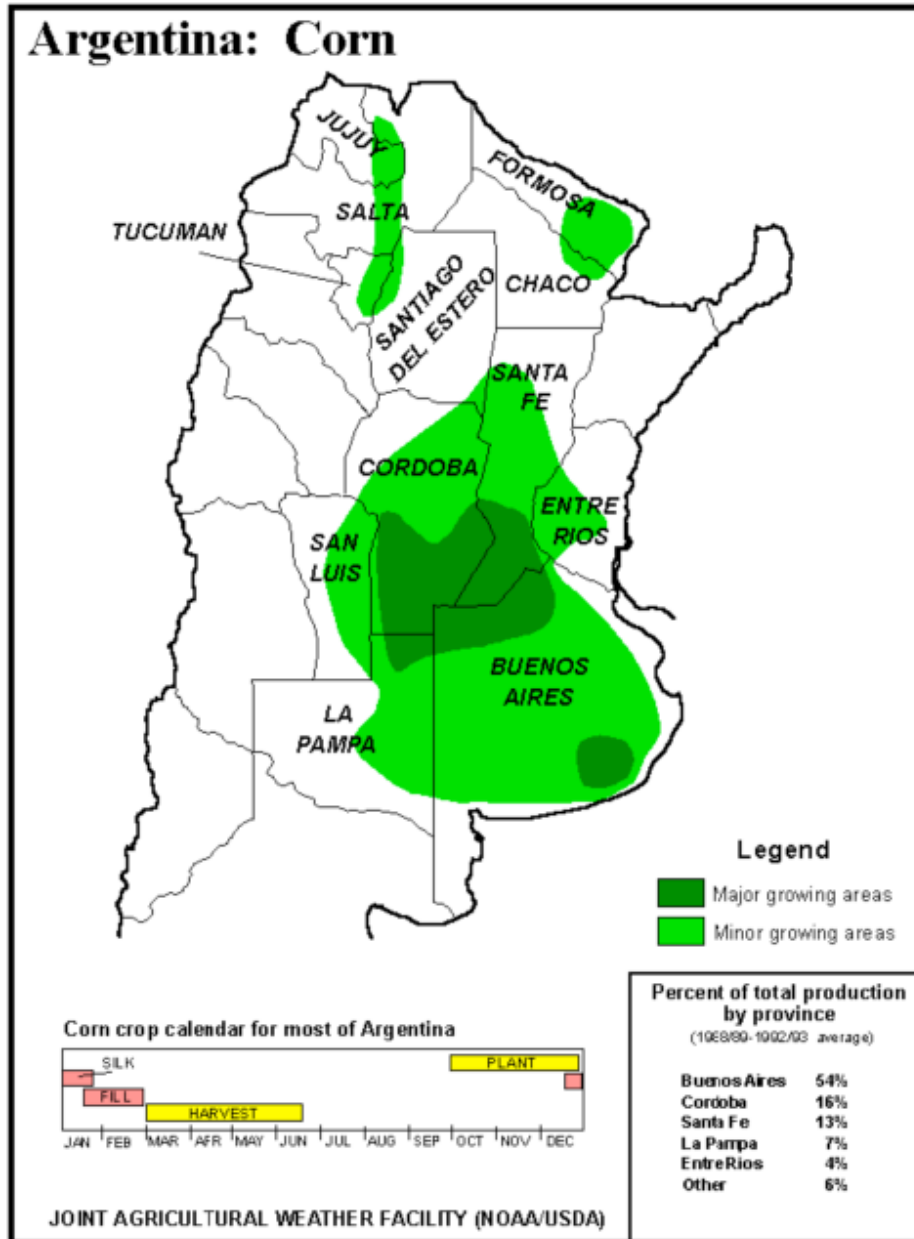
## V. CONCLUSIONS

Companies producing hybrid corn and sunflower seeds in Argentina along with the labor contractors have full control over the farms and the workers employed in the farms from which they source. A potential future complication is that the new law passed while the team was in Argentina may restrict the use of third-party labor contractors. If this provision is implemented, it will require seed companies to quickly adapt its human resource practices to establish a more direct recruitment and contract relationship with individual workers. Were labor contractors allowed to continue operating, this would allow seed companies to continue to encourage labor contractors to use a more effective management system to implement labor standards.

Syngenta is viewed by workers interviewed as one of the best employers, having avoided recent negative coverage in the media -- as compared to other corn and sunflower seed producing companies -- for significant labor law violations, including forced labor and slavery-like conditions. However, it is crucial that Syngenta’s program, which is just starting to be implemented, be fully understood by all actors involved; that labor contractors, field staff and growers be properly trained; and that labor standards be integrated into all management systems.



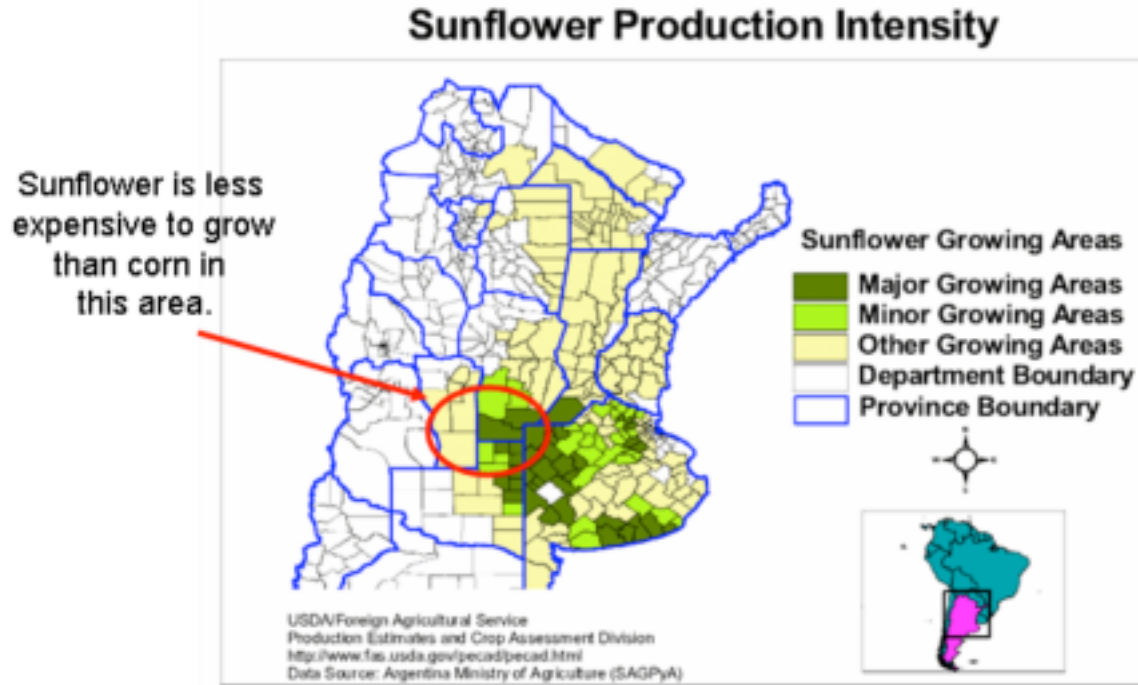
## ANNEX I: ARGENTINA MAP OF CORN PRODUCTION AND CROP CALENDAR



## ANNEX II: ARGENTINA MAP OF SUNFLOWER PRODUCTION



### Argentina Sunflower Production Intensity



USDA/Foreign Agricultural Service  
Production Estimates and Crop Assessment Division  
<http://www.fas.usda.gov/pecad/pecad.html>  
R. Tetrault (202) 690-0130

## **ANNEX III: HEALTH & SAFETY RISKS**

Based on the agricultural environment, workers face various types of hazards in field seed production. The following are some of the major hazards:

### ***Slips, trips and falls***

Falls are among the most common accidents reported to occur in the agricultural workplace. Accidents resulting from falls are often of two kinds: (1) workers reported falling from a height or were struck by a falling object; and (2) more often, the slips or trips that result in a fall occur due to obstructions in the work area or difficult to see trip hazards due to uneven terrain, wet or slippery surfaces, entanglements, broken steps, bolts in concrete walkways, and other obstructions. While the land is fairly flat, given the dense nature of the foliage of corn and sunflowers, it is difficult for workers to see where they are stepping. In some cases, large holes are found in the fields that are the burrowed sites of armadillos and other rodents, and areas where snakes stay hidden to keep out of the sun.

Working at a height refers to any work activity undertaken at any elevated position, such as the high catwalks and gangways at the Venado Tuerto plant. The risk of serious injury or death is significantly increased when working at heights greater than 2 meters. There are a variety of situations on the farms and at processing plants where falls from height can occur. These include falls from machinery (i.e., backs of trucks, loading and unloading docks, tractors, mosquito spraying equipment, harvesters, gangways or catwalks, ladders, airplanes, etc.), roofs (particularly fragile roofs), open edges, etc. The hazards of working at a height include: falls from that height, impalement following a fall (puncture wound from landing on an object), hit by falling objects or dropping objects, etc.

Roll-overs are also a particular hazard when using forklifts and tractors, particularly those moving irrigation equipment or transporting heavy loads and lifting the objects up to the top of a stack, etc.

### ***Pollination in sunflower seed production (relying on the use of bees)***

Biological hazards can be caused by stings or bites by snakes, bees, and other insects. The health effects of stinging or biting insects can range from mild discomfort or pain to a lethal reaction for those workers allergic to the insects, particularly bee venom. For adult workers, it is not known if they are aware if they are allergic. It is unclear if the medical examination includes tests for allergies. While workers are provided a first aid kit, the contents do not include epinephrine or an “EpiPen,” a well-known prevention for severe allergic reactions to bee stings. Coral and rattlesnakes can be found on farms where corn and sunflower are grown. However, this varies according to the province. In the province of San Luis (visited for this study) snakes are present.

### ***Ultraviolet (UV) radiation***

Workers reported working outside from 6am to 11am and 2pm to 5pm, which places them at risk of exposure to UVA and UVB rays. Workers are at risk of UV radiation even on cloudy days, but highest exposure occurs during the peak work season. Given the hot temperatures, lack of shade, and the need to work in direct sunlight, there is a high risk of UV radiation. This can be compounded by heat stress and dehydration. Excessive exposure without appropriate protection can result in sunburn ranging from minor to severe. Chronic exposure of eyes to sunlight

may cause pterygium (tissue growth that leads to blindness), cataracts, and even macular degeneration, a leading cause of blindness. Further, skin cancers can develop over time, ranging from basal cell, squamous cell carcinoma and melanoma.

### ***Exposure to extreme temperatures***

Workers exposed to extreme heat or who work in hot environments may be at risk of heat stress. Exposure to extreme heat can result in occupational illnesses and injuries. Heat stress can result in heat stroke, heat exhaustion, heat cramps, or heat rashes. Heat can also increase the risk of injuries in workers as it may result in fogged-up safety glasses (agro-chemical applicators), sweaty palms (slips of the machete), and dizziness (slips, trips and falls). These risks increase in proportion with the level of stress of the work and the temperatures. Older and younger workers are at greater risk of heat stress, as well as those who are overweight, have heart disease or high blood pressure, or who are on medications. Taking periodic rest breaks and drinking cool, potable water can help prevent heat stress and dehydration.

Syngenta staff reported that water is available for workers in the bus that transports workers to the field. Workers are provided five liters of water per person per day and each worker is provided a water bottle. The third party contract requires the provision of drinking water to workers, but there is no formalized process for breaks. Third party labor contractor training encourages workers to drink plenty of water.

Workers reported that water is provided for them at the work site. However, the water often becomes warm and is not refreshing to drink. Workers reported that they are allowed to take drinking water breaks every 30 minutes, but no water bottle is provided for them to carry. Workers indicated that if they run out of water, they will use the water from the irrigation systems to drink or cool off. Workers interviewed commonly reported that they were allowed only one short (15-30 minute) break during their eight hours of work and they are granted permission to periodically stop and drink water during the hottest part of the day. Some reported being provided juice, while others indicated that they had to bring their own liquid to drink. Some workers reported that they were not allowed to sit down on the ground during their work period.

### ***Ergonomic hazards***

Ergonomic hazards are attributed to the use of inadequate equipment and tools, unnatural body positions while working, reaching in excess of 28 inches, repetitive motion work, excessive bending and stooping, excessively long hours, infrequent breaks, and carrying heavy loads. Long-term exposure to ergonomic hazards can result in musculoskeletal disorders. The excessive demands placed on the musculoskeletal system can often be attributed to activities such as lifting, carrying, pushing or pulling. During the detasseling process, repeating the same activities for hours can have repercussion on workers' health. The repetitive motion can add stress to the wrists of workers and, long-term, injury to the shoulders and neck from holding arms at an elevated angle for hours and the reaching and pulling motion required.

### ***Machinery and other farm equipment***

Most of the processes, including harvesting, are carried out using machinery. Operation of machinery appears to be handled by qualified and trained workers. However, risks are present when workers attempt to perform maintenance or fix jams that occur during the process of tilling, seeding/planting and, particularly, harvesting.

Seasonal workers may, at times, be working near heavy machinery handling the detasseling function. Due to the dense foliage, there are serious life threatening risks present when workers on foot are in the vicinity of mechanical detasseling and harvesting machinery in operation.

Work around irrigation systems, where water and electricity are in close proximity, can create the risk of electrocution. Further, similar risks occur when workers are attempting to move the irrigation system to different locations.

Adecco video training indicates that workers should not work around machinery. Workers concurred that they do not work with or around machinery. No training on the risks associated with working around irrigation equipment was included within Adecco training for seasonal workers.

### ***Exposure to toxins***

Workers at very high risks are those that mix, load and apply agro-chemicals, particularly if they do not appropriately wear protective gear. Their family members are also at very high risk. Workers often unknowingly expose their families to these substances, causing various negative health effects. According to a study conducted by NIOSH that involved 28 countries, incidents of take home toxins among workers' families resulted in a wide range of health effects, including respiratory problems, neurologic disorders, and fatal poisonings. The means by which hazardous substances have reached workers' homes and families include: work clothing (directly or through washing work clothes together with family clothes), tools and equipment, taking items home from work (such as bags, rags, plastic jugs and other containers), the worker's body (coming into contact with family members before showering and changing clothes), and family members entering work areas.

Workers not engaged in the mixing, loading and application of crop protection products also face risks of exposure to toxins when working in fields that have been treated or next to a field being treated. If certain wind conditions exist, drift of the chemicals presents a hazard for workers living or working nearby. Critical to mitigating the hazards of exposure to agro-chemicals is the observance of re-entry intervals, adequately posting fields that have been treated, and ensuring that workers are not assigned to be working in or near fields being treated. Workers who come into contact with treated areas can carry these hazardous substances back home from work or to their farm labor camp on their clothes, shoes/boots, bodies, tools, and other items.

### ***Sharp cutting tools***

Workers reported commonly using two sharp cutting tools for work (mainly roughing): a machete and hoe. All workers interviewed had incurred minor cuts or scrapes due to the use of the tools; blisters were also common. Roughing is the primary work activity that a majority of workers indicated was difficult and very tiring. Proper maintenance and storage of these tools appears to be considered a high priority, as the video specifically mentions keep the tools outside of the sleeping quarters at the camp. Individual workers are responsible for the maintenance of their tools. Several of the workers had sustained cuts as a result of their use of the machete and hoe; most injuries were minor (not requiring stitches) and were self-treated by the worker. The potential risk for the cuts to become infected or being a route of entry for pesticides into the blood stream is of concern.