

Gelios-1 Ukraine: Фасоль
Накорми мир и заработай
Нюансы в технологии выращивания и
канадская технология



Кто я...

- Дочка фермера
- Работаю в сфере сельского хозяйства 2 года
- Использую свой международный опыт в рекламе и маркетинге
- В Гелиос-1 мои приоритеты – внутренние и внешние продажи
- Агронмия – приверженец бобовых

GGelios-1.com.ua



Кто есть Гелиос-1

- На рынке с 1998 года
- В нашем портфолио 5,000+га под зерновыми, бобовыми, масличными и овощами
- Философия Гелиос-1: конкурентное преимущество
- Выращивание фасоли – 2012, 2013, 2018
- Площадь под красной фасолью 2018: под поливом - 124 га
- В 2019 – 250 га
- Семена импортированы из Канады

GGelios-1.com.ua



Гелиос-1: 75% земли под поливом



Фрегаты



Сегодня я расскажу...

1

Почему фасоль – особенно цветная

2

Технология выращивания - нюансы

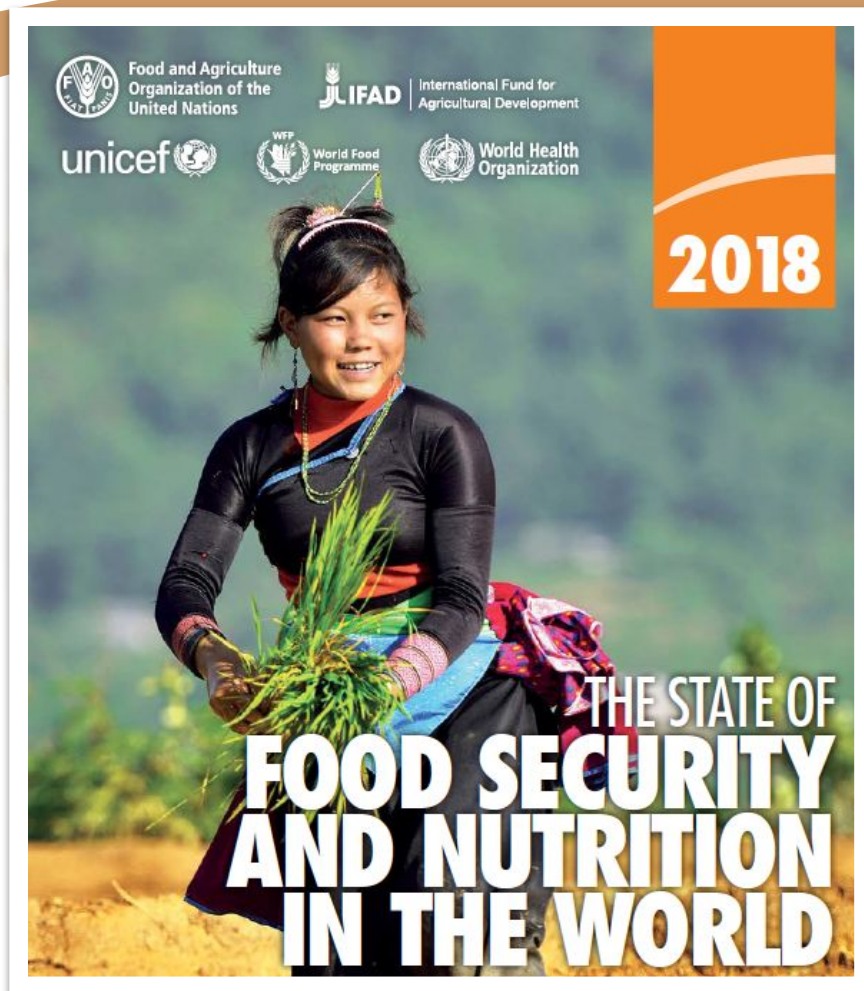
3

Что получилось у нас, а что нет

4

Канадская технология

Почему фасоль: как накормить мир



- В 2017 821 миллион людей на планете недоедают – 1 из 9
- Мясо спасти не может
- В 2017 672 миллиона людей на планете страдают ожирением – 1 из 8
- Соя здесь тоже плохой помощник



Почему фасоль: особенно цветная

No 2	25.50	to	26.00	25.83	24.70 to	26.00
No 3	16.00	to	23.50	19.75	15.20 to	16.00
No 4	20.40	to	21.50	20.95		

BEANS	SPOT MARKET		AVERAGE	F/M/A
(CDN cents per pound farmers dressed quality delivered plant)				
No 1 Navy/Pea Beans	34.20	to	37.00	34.90
No 1 Great Northern	28.50	to	28.50	28.50
No 1 Cranberry Beans	44.00	to	44.10	44.08
No 1 Light Red Kidney	44.10	to	46.00	44.58
No 1 Dark Red Kidney	<u>45.40</u>	to	<u>52.00</u>	47.05
No 1 Black Beans	31.50	to	35.00	32.38
No 1 Pinto Beans	28.00	to	30.00	28.70
No 1 Small Red	36.40	to	36.40	36.40
No 1 Pink	36.40	to	36.40	36.40
(CDN cents per 60 pound bushel farmers dressed quality delivered plant)				
Fababeans	6.00	to	11.50	8.50

OTHER	SPOT MARKET		AVERAGE	F/M/A
(CDN dollars per metric ton farmers dressed quality delivered plant)				
Canola (SK)	403.60	to	424.84	414.22
Canola (AB)	434.84	to	451.38	443.59
Flaxseed (SK)	472.41	to	523.59	505.37
Flaxseed (AB)				

$0.52 \times 2204\text{lbs} = \$1,146.08 \text{ CAD} \times 0.76 \text{ (CAD to USD)} = \871.02 USD

Source: statpub.com/stat/prices/spotbid.html



Почему фасоль: особенно цветная

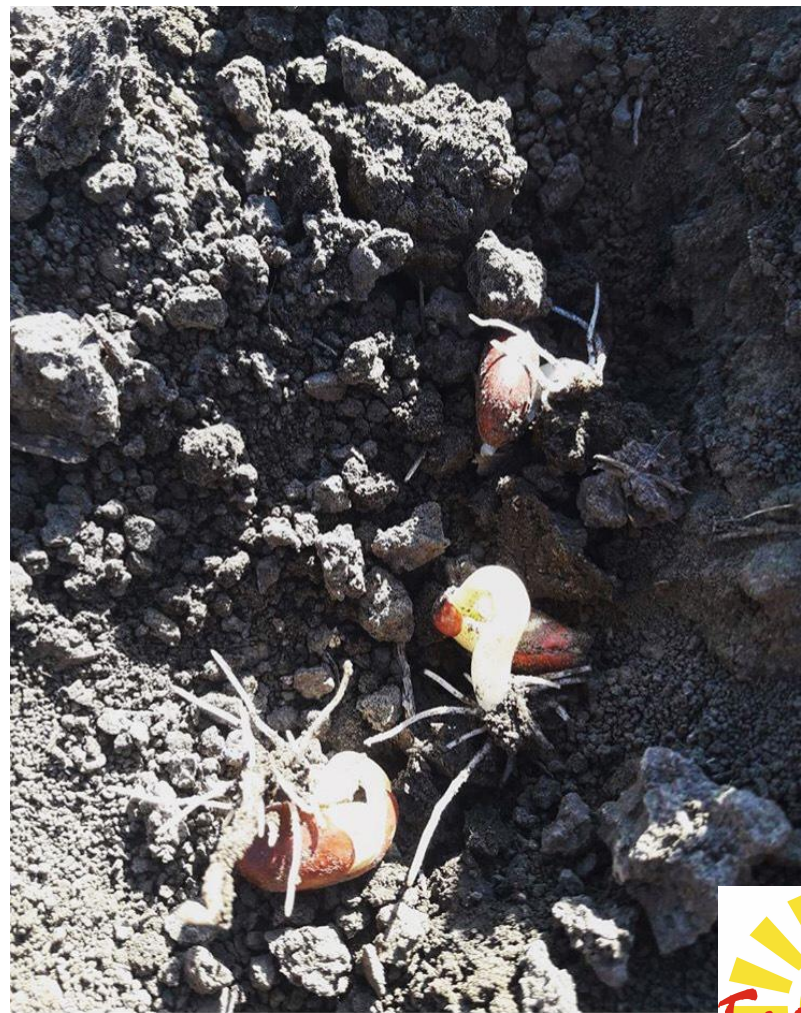
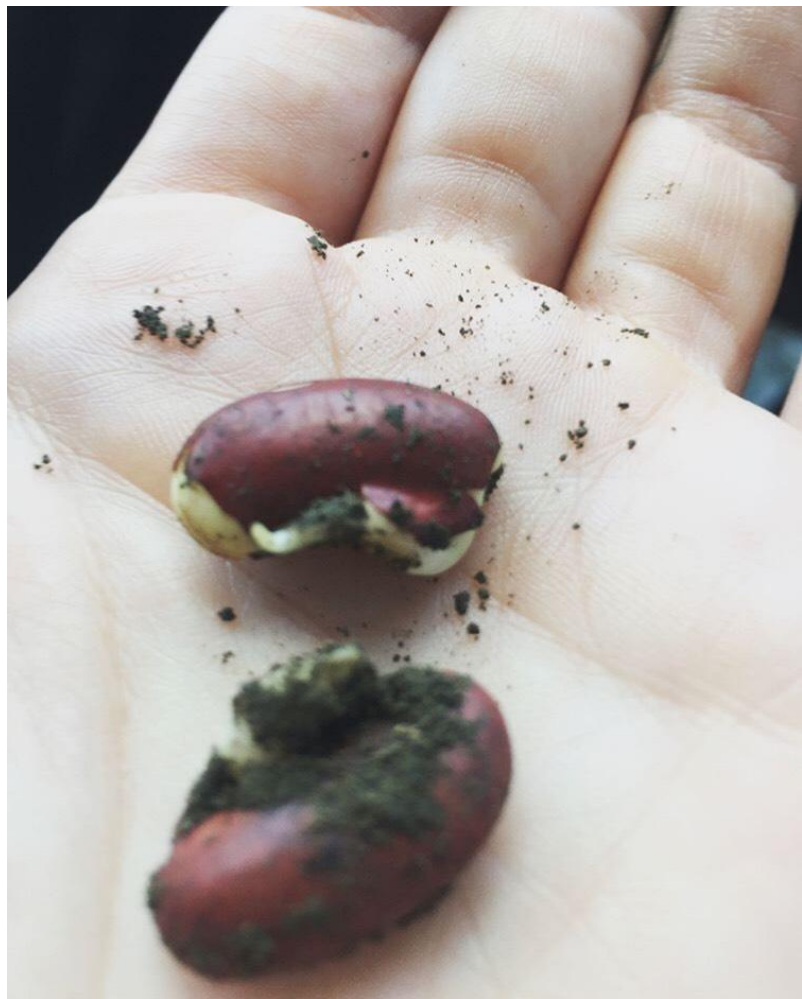


Нюансы в технологии выращивания

- Севооборот – хороший предшественник кукуруза, но у нас могло быть последствие гербицида
- Посеяли после сои – есть шанс перенятия тех же самых болезней
- 200-220 в 100гр
- Междурядье 76см



Гелиос-1: Темно-красная Кидни



5 дней после посева



Нюансы в технологии выращивания

Table 5-3. Coloured bean seeding rate

Suggested seeding rates vary significantly between market classes. Check with seed distributor for recommended rates. Seed sizes can vary between lots; check the seed tag for seeds/kg (seeds/lb).

Row Width	Seeding rate	Final Plant Stand ¹
53 cm (21 in.)	9.5–11.5 seeds/m of row (3.5–4.0 seeds/ft of row)	173,000–205,000 plants/ha (70,000–80,000 plants/acre)
76 cm (30 in.)	11.5–15.1 seeds/m of row (4.3–6.0 seeds/ft of row)	148,000–198,000 plants/ha (60,000–80,000 plants/acre)

¹ Based on 90% germination and 90% emergence.

Междурядье 76см
По технологии 11-15 бобов на метр рядка
Мы посеяли 18-19



Нюансы в технологии выращивания



Междурядье 76см



Нюансы в технологии выращивания



Dark Red Kidney Beans



Нюансы в технологии выращивания

- В Украине нет зарегистрированного гербицида на фасоль
- Все советовали использовать почвенный гербицид Гезагард, но мы пошли другим путем
- Вредители – клещ и совка
- Полив в критических периодах вегетации – в нашем климате только орошение
- **Приобретите правильный влагомер для крупной фасоли!!!**



Гелиос-1: Темно-красная Кидни



Гелиос-1: Темно-красная Кидни



Сепарация



Что у нас получилось

- Получилось вырастить с низкой себестоимостью (техника уже имелаась)
- Получилось обойтись без страхового гербицида, хотя по технологии междурядье в 75см не закрывалось
- Получились минимальные потери при двух фазной уборке
- Получилась рекордная урожайность – 3т/га



Что у нас НЕ получилось

ПРАВИЛЬНАЯ ВЛАЖНОСТЬ!!!

КАЧЕСТВО



Что у нас НЕ получилось

AGRONOMY GUIDE FOR FIELD CROPS

Harvest and Storage

Dry edible beans are sensitive to damage at harvest. Beans are sold based on eye appeal so seed coat quality and colour are important. Producing beans that are clean, bright and whole is the ultimate goal and timely harvest is paramount to maintaining quality. Know the quality standards for the crop's market class. The ideal moisture range for harvest is 16%–20%. Harvesting outside this range will reduce quality. Low moisture content at harvest will increase the amount of split seeds and cracked seed coats.

Weather conditions in the fall can cause some bean

rejection of a load because it will be assumed they are genetically modified, which is not tolerated by some importing countries. Allergens such as wheat and soybean can also be a concern, and processing may not be able to remove all contaminants. Before harvesting, clean the combine of any residual seed from previously harvested crops.

Pick refers to the percentage by weight of defective beans, including cracked seed coats and discoloured and misshapen beans that remain after dockage is removed. The dollar charge for pick is double; equal to the weight loss from picked beans plus the cost of removal.

Влажность при уборке 16-20%

Влажность при продаже 12-14%



Что у нас НЕ получилось



Партия где влажность меньше 12%



Почему канадская технология



- Качественный посевмат
- Один из топ производителей бобовых – чечевица, нут, фасоль, фаба
- Наука, государство, переработчики и производители работают вместе
- Супероый уровень агрономического развития
- Многочисленное количество бесплатных публикаций для производителей



Почему канадская технология



GUIDE TO WEED CONTROL

2016–2017
Publication 75



Ministry of Agriculture,
Food and Rural Affairs



Bookmarks



- ▼ Agronomy Guide for Field Crops Publication 811
 - 5. Dry Edible Beans

5. Dry Edible Beans

Dry edible beans (*Phaseolus vulgaris*) belong to a class of legumes (Fabaceae family). Production of dry edible beans occurs primarily in western Ontario, and the crop is typically grown under contract. Over 80% of production is exported. The main types of beans grown in Ontario include white (navy), kidney, cranberry, black, otebo, and adzuki (or azuki) beans. Adzuki beans (*Vigna angularis*) are only distantly related and are unique in their growth habit, production and susceptibility to diseases and insects. Dry edible beans require special cultural management practices for optimum quality and profitability.

Tillage Options

Dry edible beans grow best in soils with excellent soil structure and good drainage. The seedbed requirements are similar to those for soybeans, including a firm seedbed to enhance a uniform planting depth and good seed-to-soil contact to promote rapid and uniform emergence. The best, highest-yielding stands come from beans that emerge within a week of planting and remain stress free for the first 3 weeks. This is accomplished with:

- uniform soil moisture
- good soil-to-seed contact
- secondary tillage limited to the minimum required

In no-till systems, dry edible beans respond to some form of tillage in the seed zone at planting. This is largely because of their inherently small and poorly developed root system. Tillage coulters on the planting unit will provide the necessary seed-zone tillage to optimize emergence, stand establishment, early growth and plant height. Beans are shorter when grown in a no-till system and are therefore better suited to narrow row production.

Packing following planting is usually necessary where direct harvesting is planned and for dry edible beans planted no-till into corn stubble. Packing will level the field for clipping beans close to ground and reduce stones, cornstalks and contamination from dirt when combining.

Site Selection and Crop Rotation

The most important factors in field selection include:

- disease history
- previous crop
- weed control and potential herbicide carry-over
- soil structure, slope and drainage

Soil Type and Structure

Fields planted to dry edible beans are susceptible to



Канадско-украинская технология

TABLE 7-1. Herbicide Weed Control Ratings for Beans (Adzuki, Dry, Lima and Snap) (cont'd)

LEGEND: Numbers (0-9) = weed control ratings Crop tolerance ratings: E = Excellent, G = Good, F = Fair, P = Poor - = insufficient information available to make a rating
 ✓ = can be used on this crop x = not indicated for use on this crop
 R = populations resistant to this herbicide treatment exist in Ontario and won't be adequately controlled if present.

Trade Name	Crop Registrations										Annual Grasses						Annual Broadleaves						Perennials					Crop Tolerance										
	adzuki beans	black beans ¹	Dutch brown ¹	cranberry beans ¹	kidney beans ¹	lima beans	oleo beans ¹	pinto beans ¹	small red Mexican ¹	snap beans ¹	yellow eye ¹	white beans ¹	barnyard grass	crabgrass	fall panicum	foxtail, giant	foxtail, green	foxtail, yellow	proso millet	witchgrass	buckwheat, wild	fleabane, Canada	lady's thumb	lamb's-quarters	mustards	nightshades, annual	pigweeds		ragweed, common	ragweed, giant	velvetleaf	bindweed, field	horsetail	milkweed	nutsetge	quackgrass	sow-thistle	thistle, Canada
Preplant Incorporated Tank-Mixes																																						
DUAL II MAGNUM + (PURSUIT or PHANTOM or NU-IMAGE)	x	✓	✓	✓	✓	x	✓	✓	✓	✓	✓	9	9	8 ²	9	9	9	7	9	8	2	9	9 ^R	9	9	9	7 ^R	6 ^R	9	-	-	-	8	7	-	-	E	
EPTAM + (RIVAL or TREFLAN or BONANZA)	x	x	x	x	✓	x	x	x	x	x	✓	9	9	9	9	9	9	7	9	5	5	7	8	5	8	8	5	3	5	-	-	-	8	7	-	-	E	
FRONTIER MAX + PURSUIT	x	✓	✓	✓	✓	x	✓	✓	✓	✓	✓	9	9	8 ²	9	9	9	7	9	8	2	9	9 ^R	9	9	9	7 ^R	6 ^R	9	-	-	-	8	7	-	-	E	
(PURSUIT or PHANTOM or NU-IMAGE) + (RIVAL or TREFLAN or BONANZA)	x	x	x	x	x	x	x	x	x	x	✓	9	9	9	9	9	9	7	9	8	5	9	9	9	9 ^R	9	7 ^R	6 ^R	9	2	2	2	7	6	2	2	G	
Preemergence Grass Herbicides																																						
DUAL II MAGNUM	x	✓	✓	✓	✓	x	✓	✓	✓	x	✓	✓	9	9	8 ²	8	9	9	4	9	2	0	2	7	2	8	7	4	3	2	0	0	0	7 ⁴	0	0	0	G
Preemergence Broadleaf Herbicides																																						
PERMIT	x	✓	✓	✓	✓	x	✓	✓	✓	✓	✓	-	-	-	-	-	-	-	-	-	8 ^R	8	8	8	2	8 ^R	8 ^R	8 ^R	8 ^R	6	6	7	9	-	-	-	E	
Preemergence Grass and Broadleaf Herbicides																																						
PURSUIT or PHANTOM or NU-IMAGE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	8	7	7	9 ^R	9 ^R	9	7	8	8	2	9	9 ^R	9	9 ^R	9 ^R	7 ^R	6 ^R	9	2	2	2	7					

¹ Indicates a *Phaseolus vulgaris* dry common bean.

² Use the high rate of herbicide for optimum control.



Канадско-украинская технология

Уборка в 2 этапа

more adverse weather at maturity than the white navy, cranberry, otebo and white kidney types.

- Cranberry beans are susceptible to darkening of seed coat following maturity, lowering their value, so prompt harvest is important.
- Larger seeded coloured beans tend to absorb more moisture after a rain, requiring more time to dry down.
- Adzuki beans are strongly upright, quite resistant to weathering and their hard seed coat resists absorption of moisture after maturity.

Each bean type has unique quality standards that buyers look for. It is important to know these prior to harvest. White beans must be clean and free of dirt tag (smearing) and staining. Seed size and colour are important in cranberry and adzuki beans, while a low level of cracked seed coats in kidney beans is an important quality factor.

Dockage and Pick

Dockage is anything foreign that is removed from the beans through a screening process. Some items can only be partly removed through screening, such as weed seed, corn, soybeans or other crop types. Severe bean staining from weeds or green material can cause a load to be refused, and quality will be reduced if there is dirt on the beans. Other items that can cause a load to be rejected include metal and glass. It is critical that

Pulling, Windrowing, Combining

Larger-seeded beans and beans planted in wide rows are usually pulled and placed in windrows at harvest. Pulling refers to cutting the plants 3-5 cm (1.2-2.0 in.) below the soil surface and merging several of the planted rows into a single swath or windrow. Beans are pulled when 90% of pods have matured and turned “buckskin brown.” To prevent pod drop and shattering losses, pull beans early in the morning when the plants are tough and damp with dew. Beans are harvested later the same day with an edible bean or conventional combine equipped with a windrow pick-up attachment. Since prolonged exposure of the mature crop to moisture will result in reduced quality, harvest the crop as soon as possible after pulling. This specialized harvesting is required to meet quality standards set by the market for larger-seeded bean types. Under good conditions, seed losses of 3%–5% are normal during harvest (e.g., 1% loss pulling and windrowing, 1% at combine pick-up, and 1%–2% cleaning and threshing).

Direct Combining

Bean types most suited to direct harvest include white beans with upright plant type, adzuki beans, black beans and pinto beans. Some larger-seeded types can be successfully direct harvested when grown in narrow



Канадско-украинская технология Уборка в 2 этапа



Gelios-1 Ukraine: Фасоль Накорми мир и заработай.

Вопросы?

Кристина Горстка
khrystyna@gelios-1.com.ua
+38 095 287 1267 Viber & WhatsApp