

Best Practices for Collecting Data on the Farm





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- **Mission of Pa Flax Project**
- PA Flax is a cooperative of farmers and textile producers on a mission to change the textile industry and create economic opportunity that's good for the planet.





Ag Component of PA Flax Project

- **Gather and disseminate information**
- **Oversee local field trials**
- **Recruit farmers and research partners**
- **Consult with farmers, researchers, industry**
- **Maintain and expand agricultural relationships**





Variety Trials And Increase



CREDIT: LINDA SCHNEIDER



Variety Trials And Increase

- The most recent advances in breeding have occurred in Europe
 - We are evaluating modern European Varieties, which are protected by licensing. These seeds must be imported and can be hard to acquire at times
 - We are also working with historical varieties from all over the world, maintained in a collection cared for by the USDA. These varieties are free from licenses and can be used freely for research and development.



Variety Trials And Increase

- **We are growing between 25 and 30 varieties per year for trials and increase**
 - How well do they grow in our climate and soil?
 - What is the quality of their fiber?
 - Will they produce enough seeds to increase our seed supply?



Variety Trials And Increase

- **How well do they grow in our climate and soil?**
 - Growth rate / height
 - Observing evidence of insects or disease
 - Response to heat, excess rain, drought
 - Overall yield of flax straw



Variety Trials And Increase

- **What is the quality of their fiber?**
 - Share of total fiber
 - Long fiber yield
 - Share of long fiber
 - Fineness
 - Strength



Variety Trials And Increase

- Will they produce enough seeds to increase our seed supply?
 - Looking for a large percentage of increase year over year
 - Fiber flax has been bred to produce quality fiber without many side branches, this reduces the number of seed capsules and overall yield compared to oilseed flax



Observations and data collection - Weekly

- **Observations - Weekly**
 - Specific, spelled out ahead of time, relevant to the goals of the project
 - Accurate, standardized, consistent
 - Minimum number of observations required to achieve desired results
 - Everyone making observations has had the same training and is aware of what is happening in the field week to week
 -



Observations and data collection - Weekly

- **Data Collection - Weekly**

- Standardized, easy to use weekly data sheets
- Easy data entry on paper in the field, or into a tablet
- Take plenty of pictures for review or confirmation at a later date
- Data sheets live on a shared google drive, and are updated and shared weekly



Truelove Seeds Variety Trials And Increase



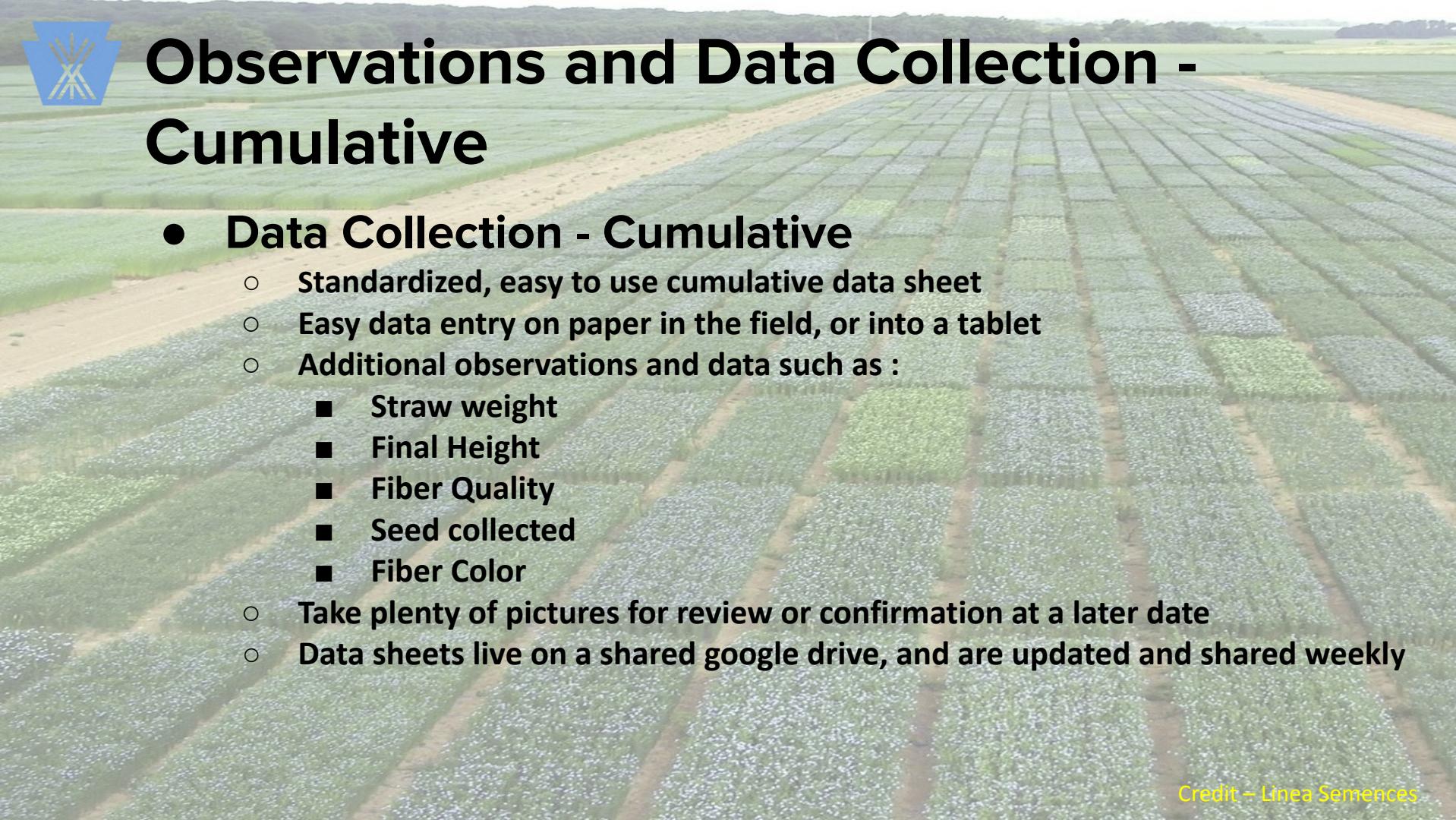


PA Flax Project Data Sheet

Seasonal Observations - Weekly

Fill out this sheet once a week or in every week where you expect to see variation.

Location ID:	Truelove	Date:	6/11	Remarks:			
Recorded by:	Sheil					sown 4-17	
Unusual/Extreme Weather Events:							
Weather Data Prior week	High	Low	Rainfall				
	101	64	2				
Data Dictionary	Average crop height inches, take in same location	Crop flowering? (Percentage of flowering observed:)	Crop yellow? (Percentage of yellow observed)	weed control (Y/N)	Insect herbivory Y/N Insect Id in notes if possible	Disease % of total for variety. id in notes if possible	Variety specific notes
Varietal	Height	Percent flowering	percent_yellow	weed_control	Insects	Disease	Notes
Peynau	53						80%
Cili 1807	47						
BJELO KATJACS	38		10%				50% seed
SG-620	45		20%				80% seeds
WEIRA	50		Faint				80% seeds
FIVEL	45						
SOCTOSS LEUCHTE	54						
Cili 1752	48						90% seeds
Cili 1787	48						80% seeds
CRISTA-FIBER	45		1%				
LISA	48						80%
ARIANE	48		Faint				80% seeds
VIKING	53						
Hollandia	46	30%					60% seeds
Belorusskij-1	51	60%	20%				
Mogilevskij	52		40%				50%
Herra	52						
J W S	45	20%					80% seeds
Martoni I.6	42	40%	45%				60% seeds
Textilak	45		70%				90% seeds
Sagino NO 2	52	30%	15%				70% seeds
Rolin	50		55%				80% seeds
NOTES							
Weed Types							
Insect identification	Less pollination as before, more in seed						
Disease type, frequency							



Observations and Data Collection - Cumulative

- **Data Collection - Cumulative**

- Standardized, easy to use cumulative data sheet
- Easy data entry on paper in the field, or into a tablet
- Additional observations and data such as :
 - Straw weight
 - Final Height
 - Fiber Quality
 - Seed collected
 - Fiber Color
- Take plenty of pictures for review or confirmation at a later date
- Data sheets live on a shared google drive, and are updated and shared weekly

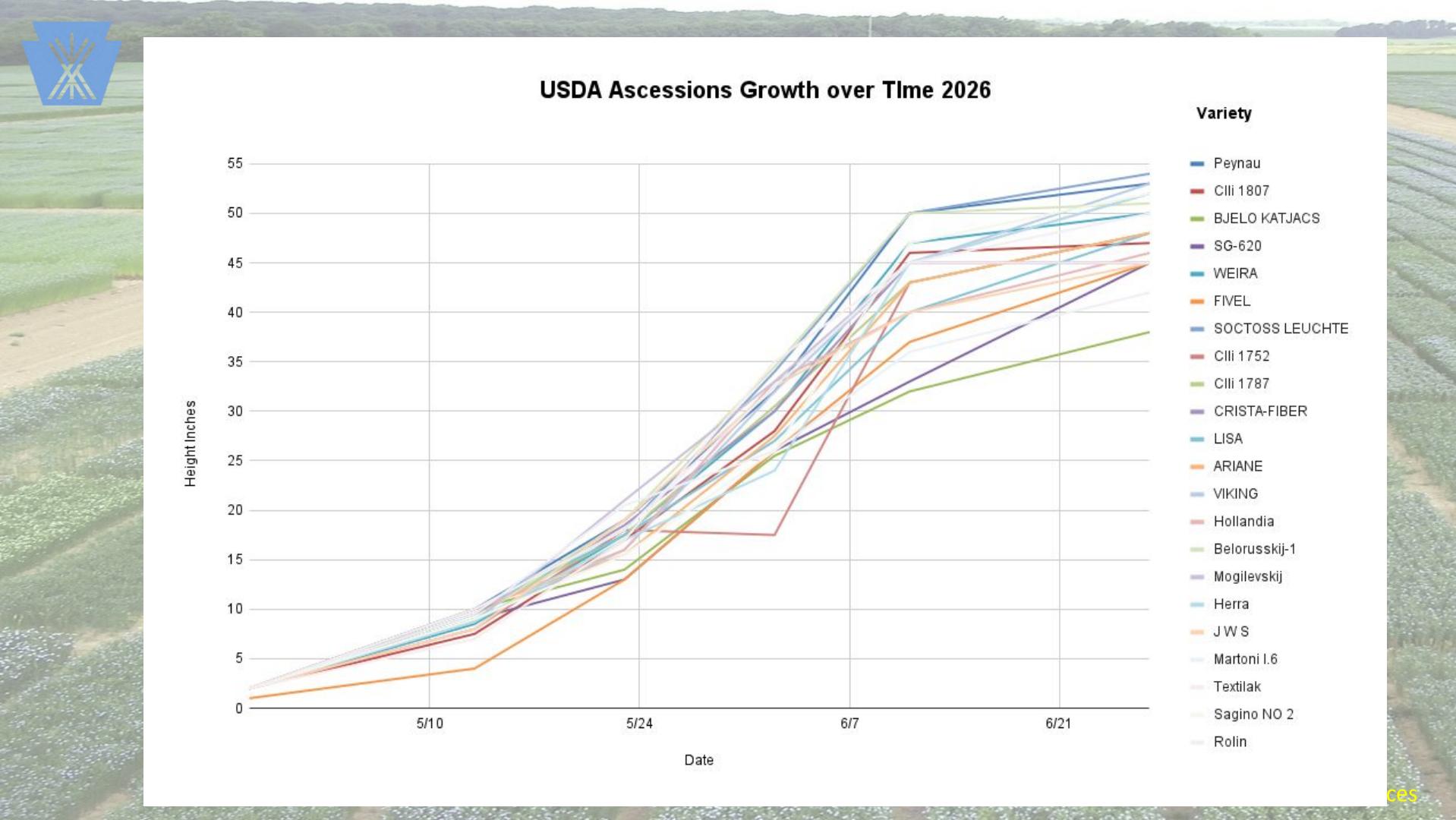


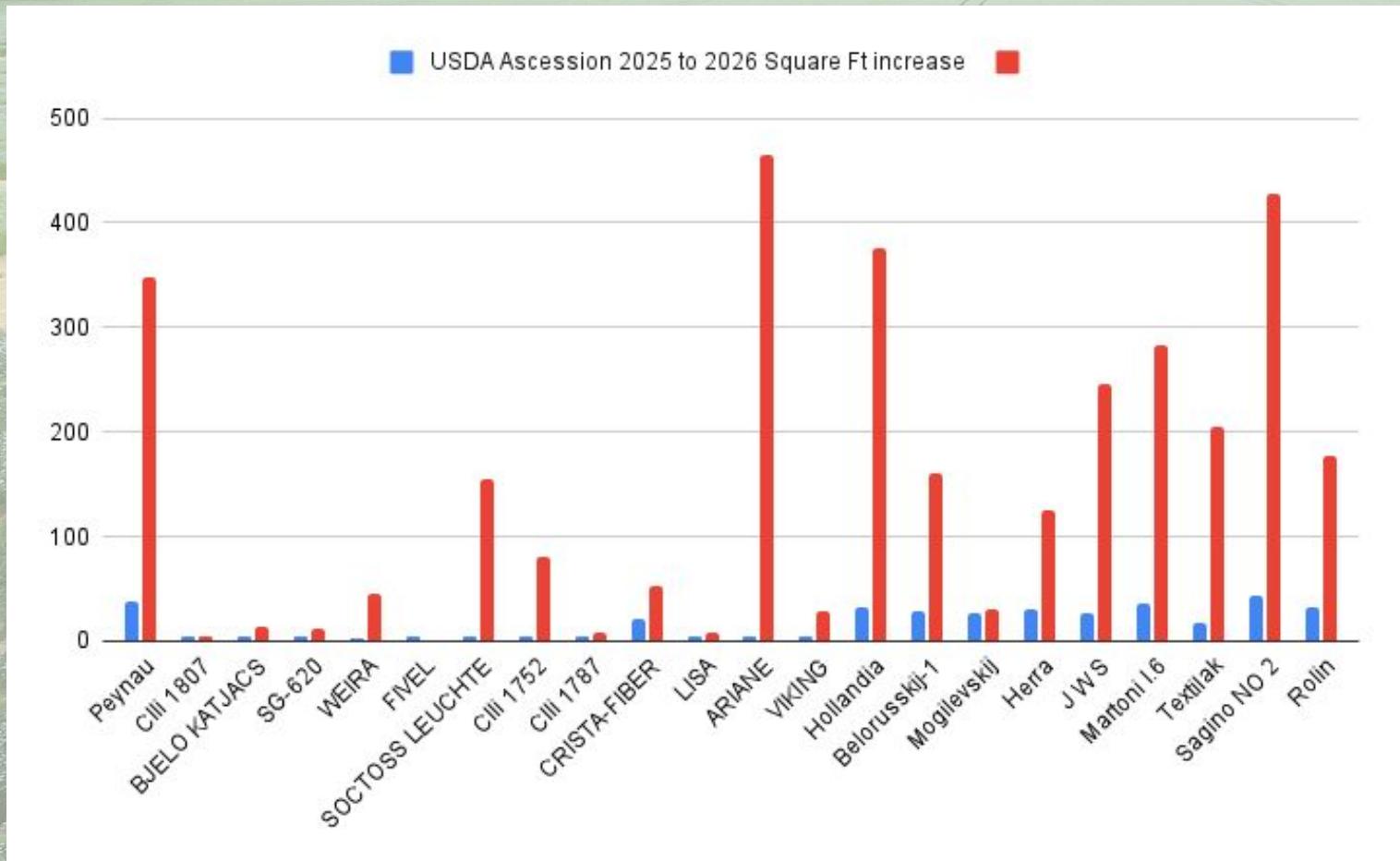
PA Flax Project Data Sheet

Seasonal Observations - Overall

Fill out this sheet once per planting, based on observations made over the course of the growing season

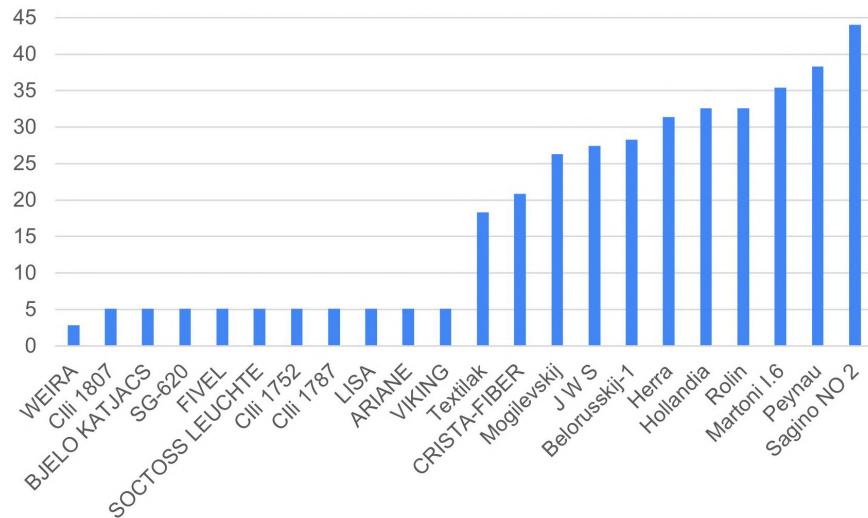
Farm Name:	Truelove	Date:	1/13		Remarks:											
Location ID:																
Recorded by:	Bill															
Variety	Date seeded	Date of emergence	Date of first flowering	Date of Maturity	Height at Maturity	Crop response to heat	Crop response to drought	Insect damage Y/N (explain in notes)	Disease incidence Y/N (explain in notes)	Lodging %	Straw weight after retting (grams) per Ft2	Share of total fiber	Long Fiber Yield	share of long fiber	Fineness	Strength
Peynau	4/17	4/24	6/11	7/16	53	excess growth	n/a	n/a	n/a	80						
Clli 1807	4/17	4/24		7/16	47	excess growth	n/a	n/a	n/a	80						
Bjelo katjacs	4/17	4/24	6/11	7/16	38	excess growth	n/a	n/a	n/a	80						
SG-620	4/17	4/24	6/11	7/16	45	excess growth	n/a	n/a	n/a	80						
Weira	4/17	4/24	6/11	7/16	50	excess growth	n/a	n/a	n/a	80						
Fivel	4/17	4/24		7/16	45	excess growth	n/a	n/a	n/a	80						
Soctoss																
Leuchte	4/17	4/24	6/11	7/16	54	excess growth	n/a	n/a	n/a	80						
Clli 1752	4/17	4/24	6/11	7/16	48	excess growth	n/a	n/a	n/a	80						
Clli 1787	4/17	4/24	6/11	7/16	48	excess growth	n/a	n/a	n/a	80						
Crista-fiber	4/17	4/24	6/11	7/16	45	excess growth	n/a	n/a	n/a	80						
Lisa	4/17	4/24	6/11	7/16	48	excess growth	n/a	n/a	n/a	80						
Ariane	4/17	4/24	6/11	7/16	48	excess growth	n/a	n/a	n/a	80						
Viking	4/17	4/24	6/11	7/16	53	excess growth	n/a	n/a	n/a	80						
Hollandia	4/17	4/24	6/11	7/16	46	excess growth	n/a	n/a	n/a	80						
Belorusskij-1	4/17	4/24	6/11	7/16	51	excess growth	n/a	n/a	n/a	80						
Mogilevskij	4/17	4/24	6/11	7/16	52	excess growth	n/a	n/a	n/a	80						
Herra	4/17	4/24	6/11	7/16	52	excess growth	n/a	n/a	n/a	80						
J W S	4/17	4/24	6/11	7/16	45	excess growth	n/a	n/a	n/a	80						
Martoni I.6	4/17	4/24	6/11	7/16	42	excess growth	n/a	n/a	n/a	80						
Textilak	4/17	4/24	6/11	6/27	45	excess growth	n/a	n/a	n/a	80						
Sagino NO 2	4/17	4/24	6/11	7/16	52	excess growth	n/a	n/a	n/a	80						
Rolin	4/17	4/24	6/11	7/16	50	excess growth	n/a	n/a	n/a	80						



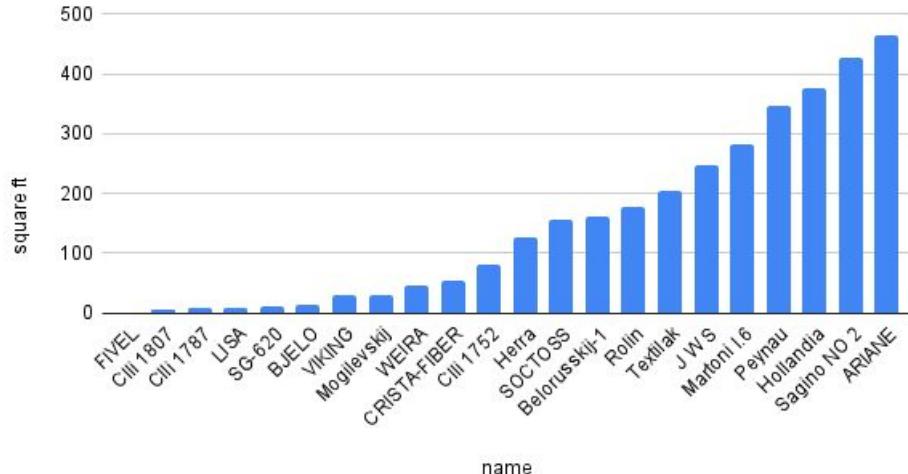




USDA Accessions Square Ft to plant 2025



USDA Accessions Square Ft to Plant 2026



Name	truelove saved	2025 Available to plant at true love	2025 Square ft to plant	2025 Harvest in Grams	2025 Grams to seeds (195 seeds/gram)	2026 usda order	Percent Increase	2026 Square ft to plant
Peynau	5800	6700	38.29	307	59,865	1,000	794	348
Clli 1807		900	5.14	4	780		-13	4
BJELO KATJACS		900	5.14	12	2,340		160	13
SG-620		900	5.14	11	2,145		138	12
WEIRA		500	2.86	36	7,020	1,000	1,304	46
FIVEL		900	5.14	0	0		-100	0
SOCTOSS LEUCHTE		900	5.14	134	26,130	1,000	2,803	155
Clli 1752		900	5.14	67	13,065	1,000	1,352	80
Clli 1787		900	5.14	7	1,365		52	8
CRISTA-FIBER	2750	3650	20.86	48	9,360		156	53
LISA		900	5.14	8	1,560		73	9
ARIANE		900	5.14	412	80,340	1,000	8,827	465
VIKING		900	5.14	26	5,070		463	29
Hollandia	5500	5700	32.57	332	64,740	1,000	1,036	376
Belorusskij-1	4750	4950	28.29	139	27,105	1,000	448	161
Mogilevskij	4400	4600	26.29	27	5,265		14	30
Herra	5,290	5490	31.37	113	22,035		301	126
J W S	4600	4800	27.43	216	42,120	1,000	778	246
Martoni I.6	6000	6200	35.43	249	48,555	1,000	683	283
Textilak	3000	3200	18.29	179	34,905	1,000	991	205
Sagino NO 2	7500	7700	44.00	379	73,905	1,000	860	428
Rolin	5500	5700	32.57	159	31,005		444	177
Totals	68,190	390	2,865	558,675		719	3,149	

emences



Pasture Song Farm Variety Trials





Pasture Song Farm Variety Trials

- **Lisette and Avian**
- **Van de Bilt Seeds and Flax - The Netherlands**
- **Linore**
- **Fibrevolution - Oregon**
- **5 acres**



Smucker Farm Variety Trials





Smucker Farm Variety Trials

- Aramis, Bolchoi, and Damara
- Terre de Lin Cooperative, France
- 5 acres



Resources

[The Grower's Guide to Conducting On-farm Variety Trials](#)