



LAND & RESEARCH

ENSURING FOOD FOR THE FUTURE



Agriculture,
Natural Resources
and Extension



The Alaska Farm Bureau's mission is to improve the economic well-being and expansion of agriculture and to enrich the quality of life for all Alaskans

Farmland Loss over time



A Decade of Change in the Mat-Su
Borough and Impacts to Alaska's Food
Security

What Does Agriculture Look Like in Southcentral Alaska?



Top Crops in Acres

Forage (hay/haylage), all	9,710
Vegetables harvested, all	687
Potatoes	365
Lettuce, all	70
Floriculture and bedding crops	55

Number of farms	350
Land in farms (acres)	34,388
Average size of farm (acres)	98

Total	(%)
Market value of products sold	37,536,000

Livestock Inventory (Dec 31, 2017)

Broilers and other meat-type chickens	977
Cattle and calves	1,500
Goats	455
Hogs and pigs	727
Horses and ponies	407
Layers	4,309
Pullets	809
Sheep and lambs	348
Turkeys	164

53 Percent of state agriculture sales

Source: USDA Census of Agriculture, 2017

Mat-Su Farms Feed Most Alaskans

- 40% of Alaska's population lives in Anchorage
- As more Mat-Su farmland gets converted to residential and commercial, Anchorage's in-state food sources must be trucked from Delta, Fairbanks, or Nenana
 - Longer transport distance = increased costs
 - If Alaska farmers can't afford to farm, our people



Pitchfork Ranch bison on Lazy Mountain near Palmer.

Photo credit: Todd Pettit

How Has Agriculture Changed Over the Past 10 years?



**Mat-Su Borough's
Farm Deferment
Program offers
reduced taxation for
land**



**2013 & 2023 data
from Mat-Su
Borough
Assessments**

2013 Average Farm Deferment = \$821,064

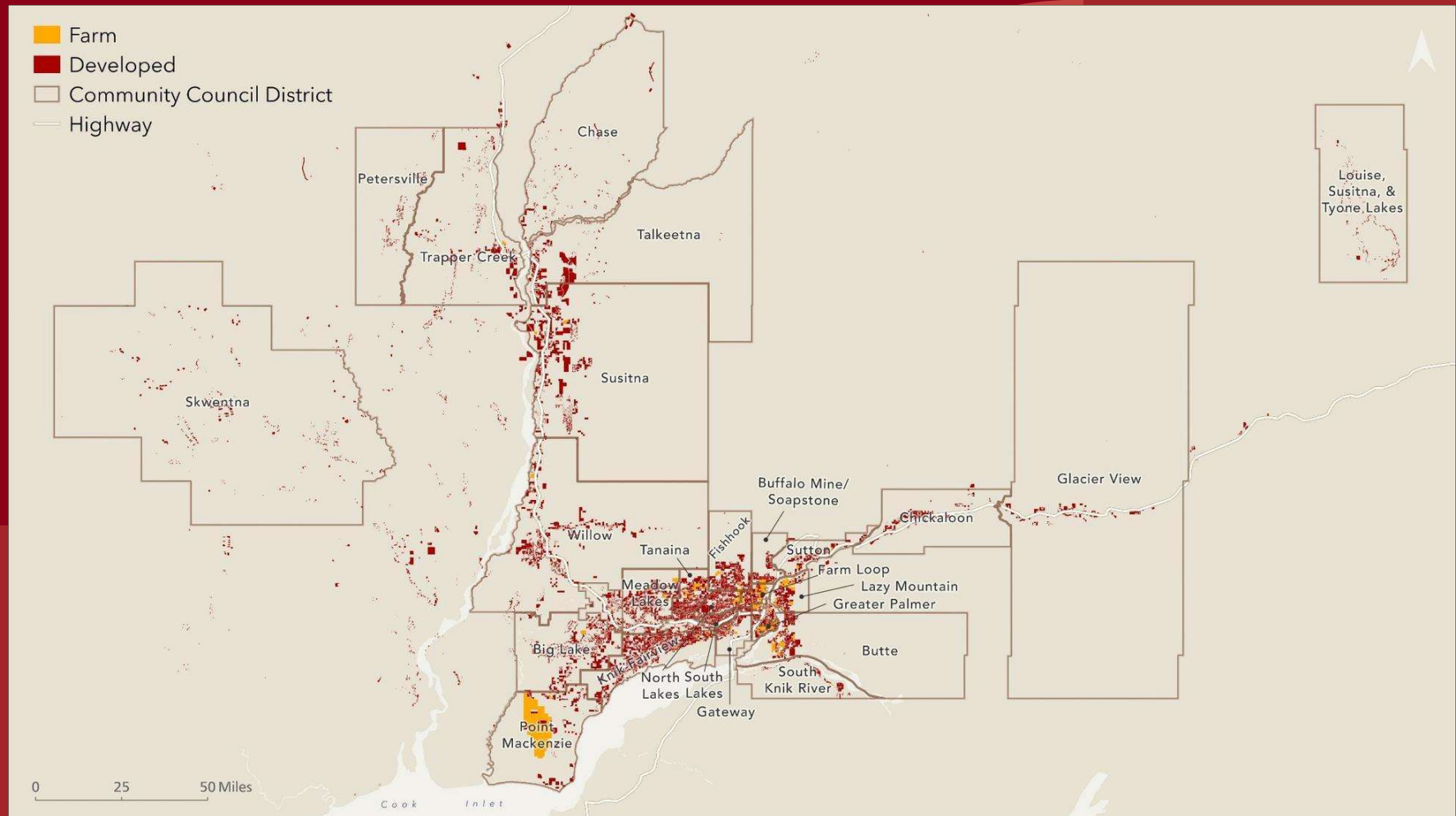
2023 Average Farm Deferment = \$590,488

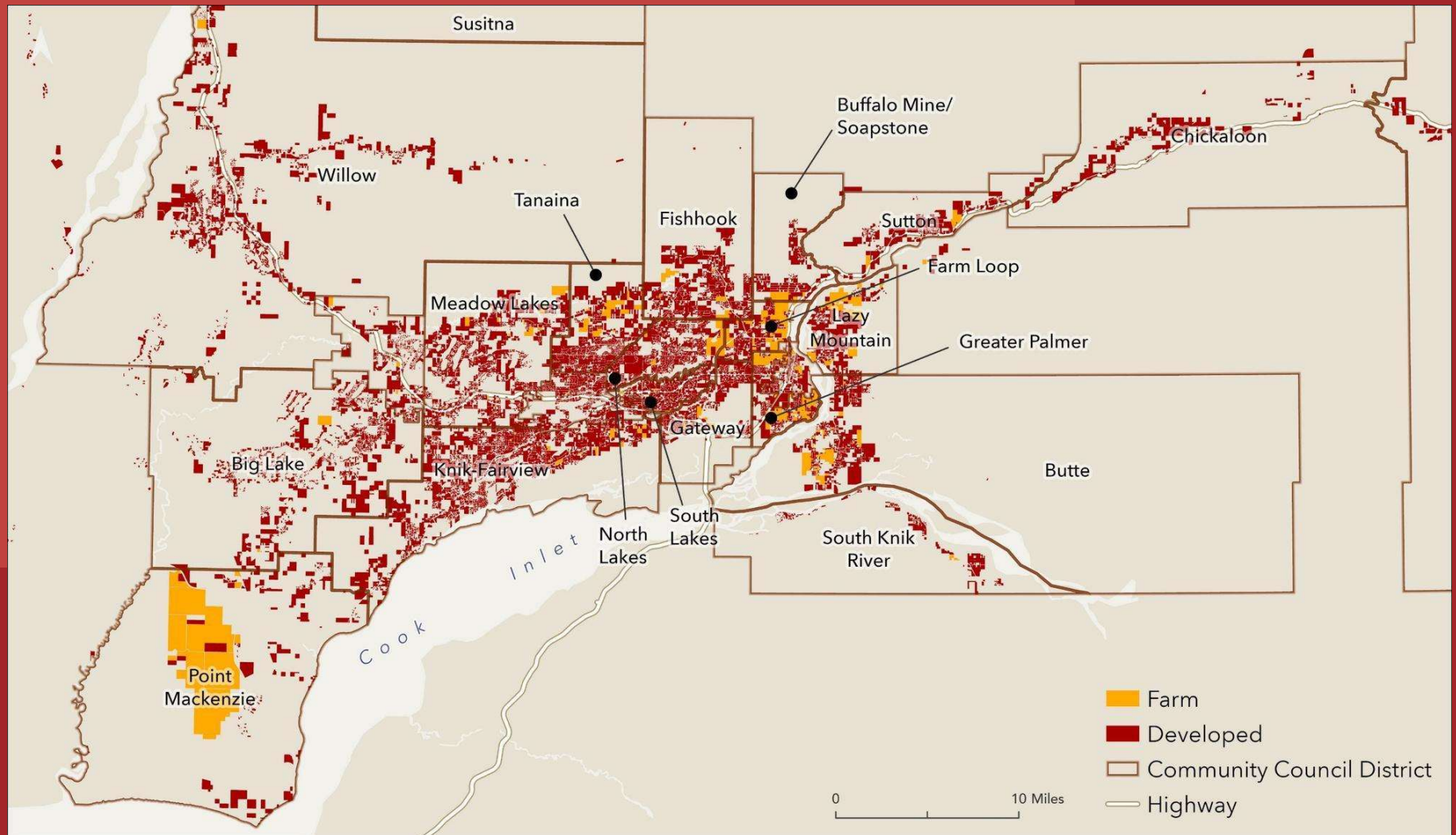


**GIS Data from
Mat-Su Borough**

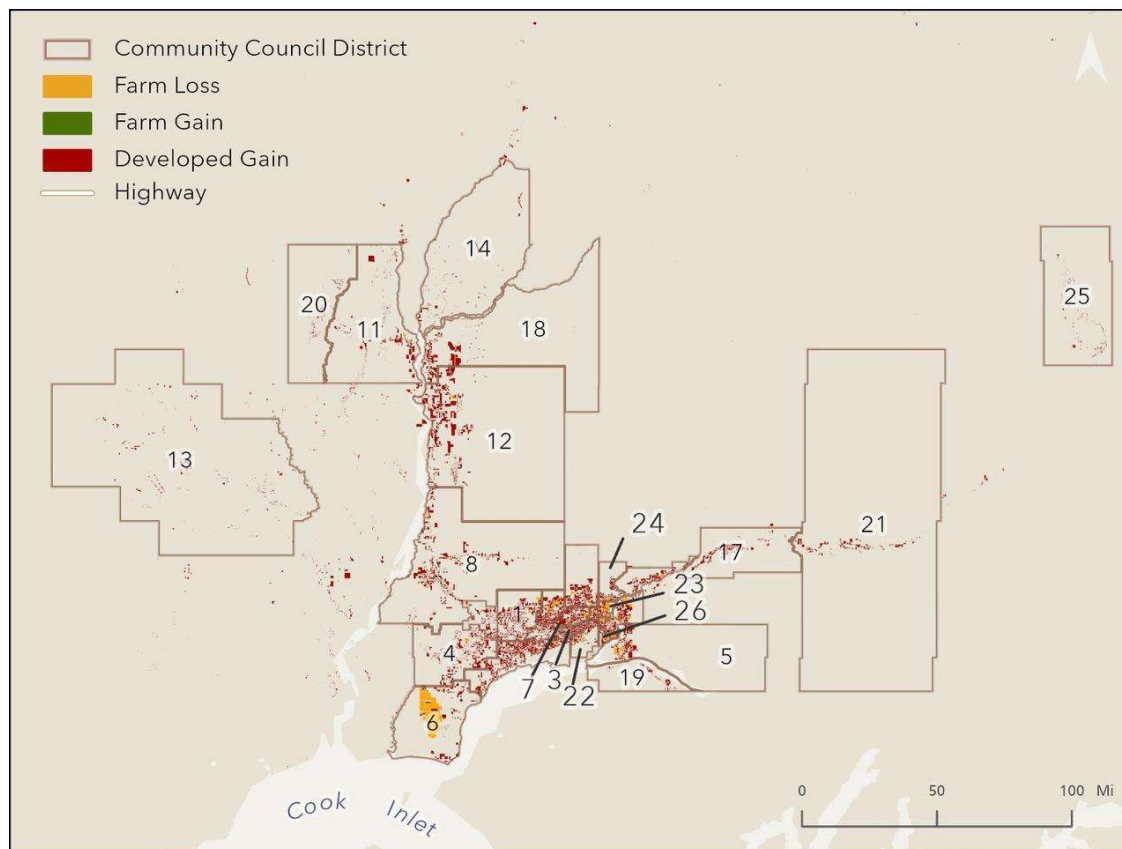
Land use codes and
legal descriptions

What does land look like in the Mat-Su today?





Land Use Change 2013-2023

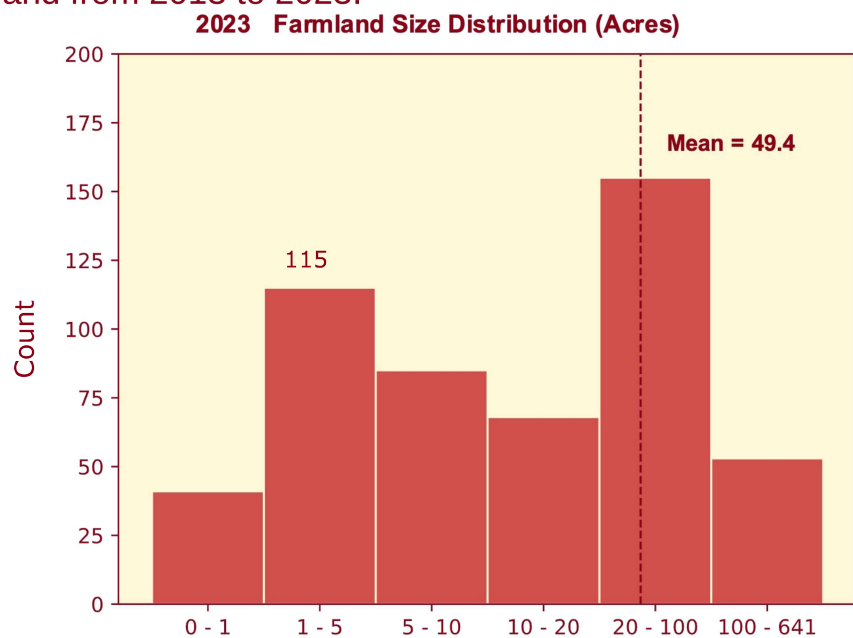
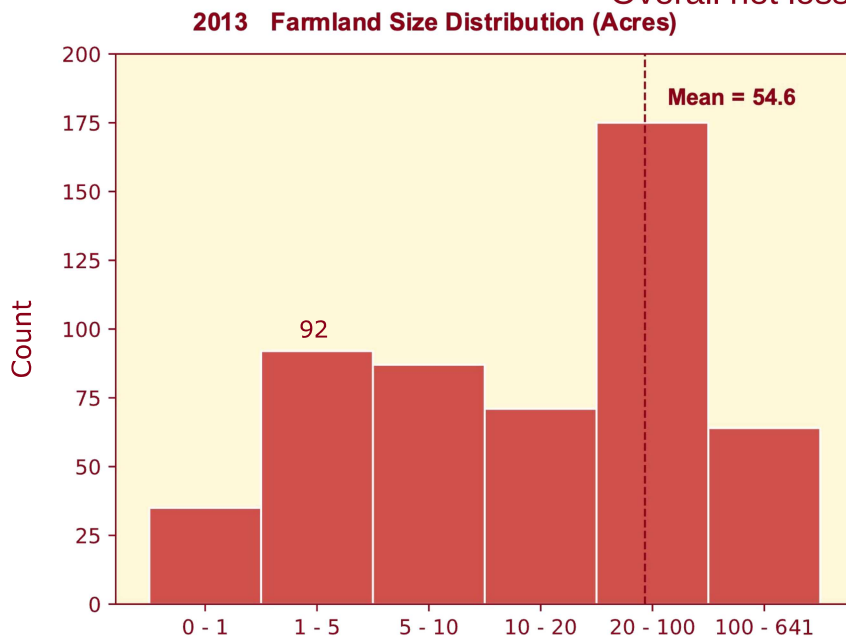


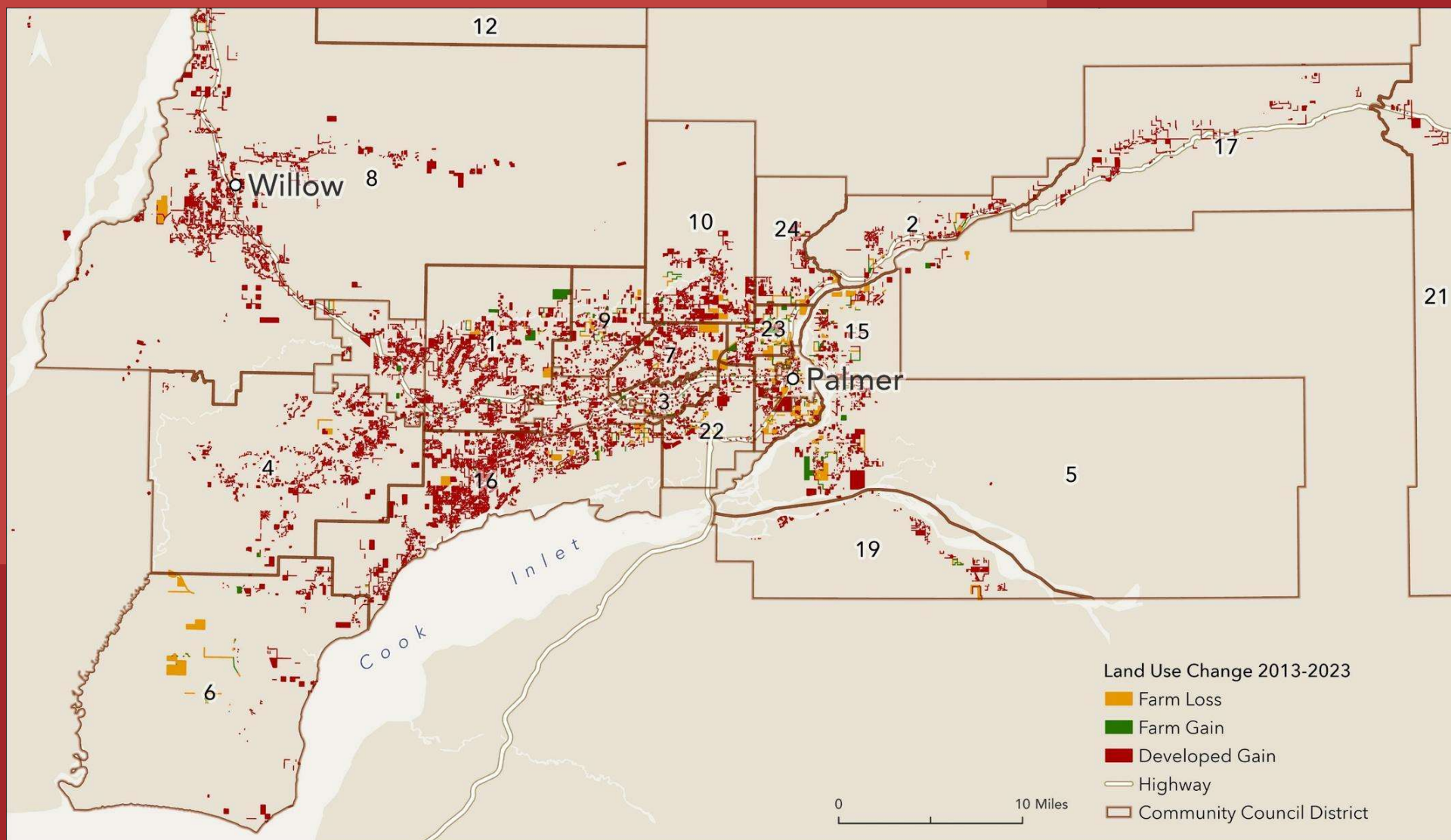
ID	Community	Change in Farmland	Change in Developed
6	Point Mackenzie	-784	835
8	Willow	-418	1,948
26	Greater Palmer	-386	376
7	North Lakes	-386	757
16	Knik-Fairview	-299	2,820
10	Fishhook	-182	845
11	Trapper Creek	-178	1,469
15	Lazy Mountain	-174	167
21	Glacier View	-160	195
23	Farm Loop	-127	405
22	Gateway	-118	635
19	South Knik River	-97	328
24	Buffalo Mine/Soapstone	-94	250
4	Big Lake	-60	737
9	Tanaina	-24	701
18	Talkeetna	-6	1,836
2	Sutton	-4	121
3	South Lakes	42	96
5	Butte	45	581
12	Susitna	107	2,824
1	Meadow Lakes	234	1,048
13	Skwentna		197
14	Chase		540
17	Chickaloon		266
20	Petersville		557
	Louise, Susitna, & Tyone		
25	Lakes		157
	Total	-3,072	20,692

Farm Sizes Have Changed Over Time

Large farms are disappearing while the number of farms less than 5 acres in size have increased.

Overall net loss of farmland from 2013 to 2023.





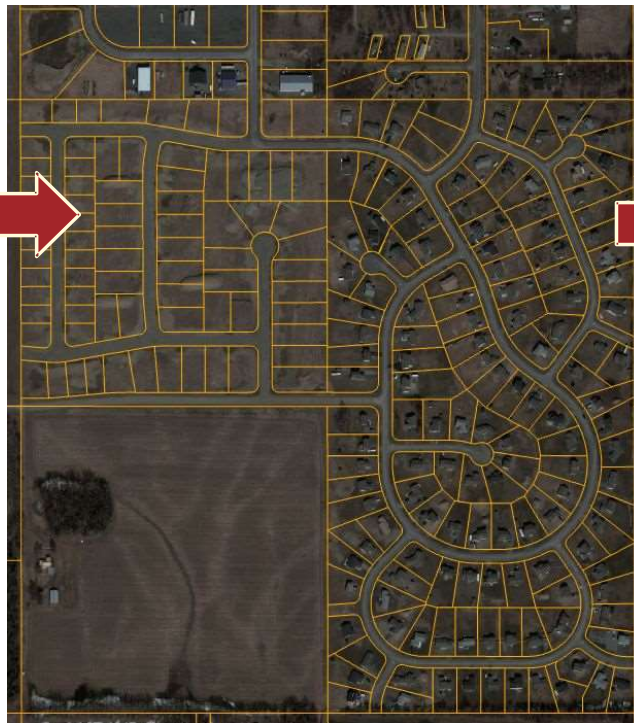
From Farmland to Epitaths

(Hay Field to Hay Wagon Way)

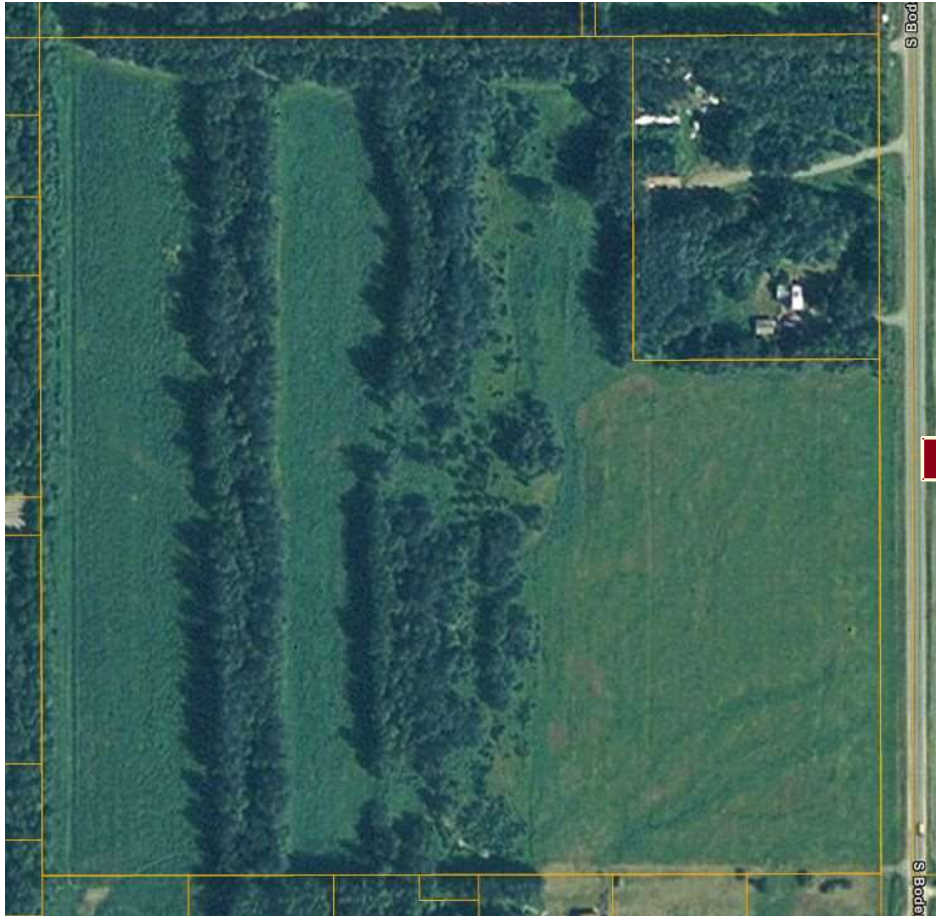
2011

2013

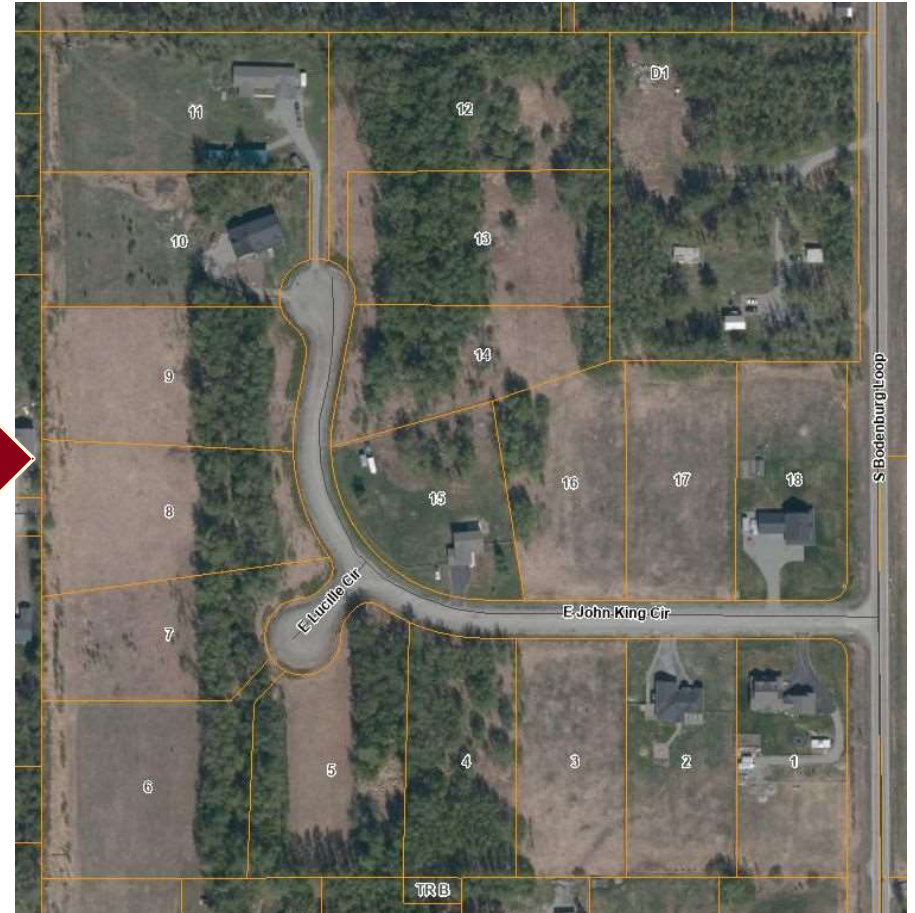
2023



Bodenburg Butte - hayfield to subdivision



2013



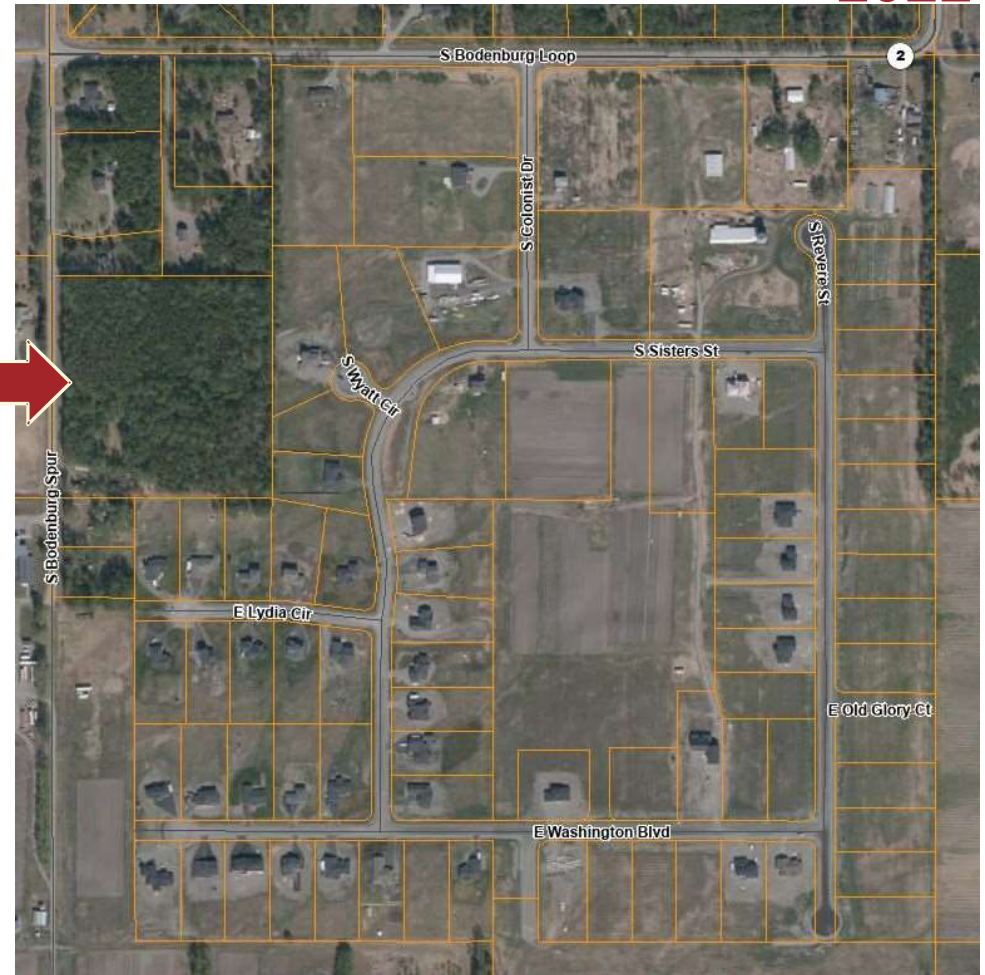
2022

Palmer (Bodenburg Butte) Colony Farm to Colonist Dr.

2013



2022



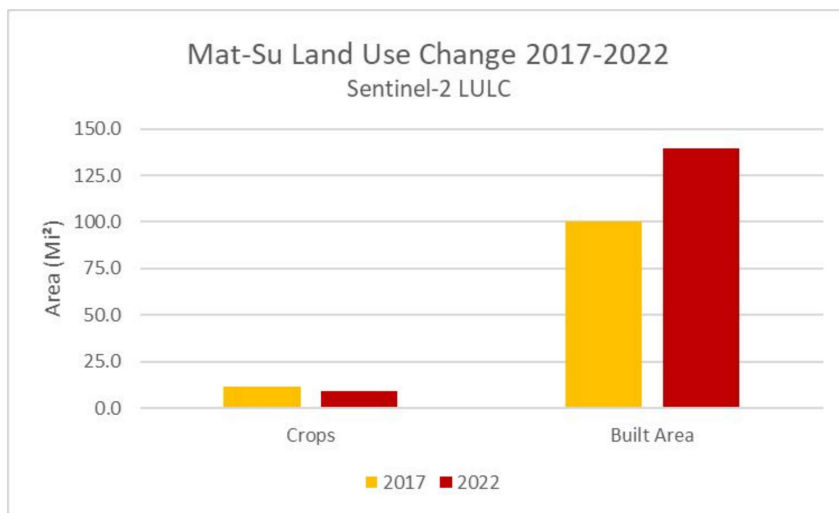
Mat-Su Farm Deferment is One Data Source...

What do other Sources Show?

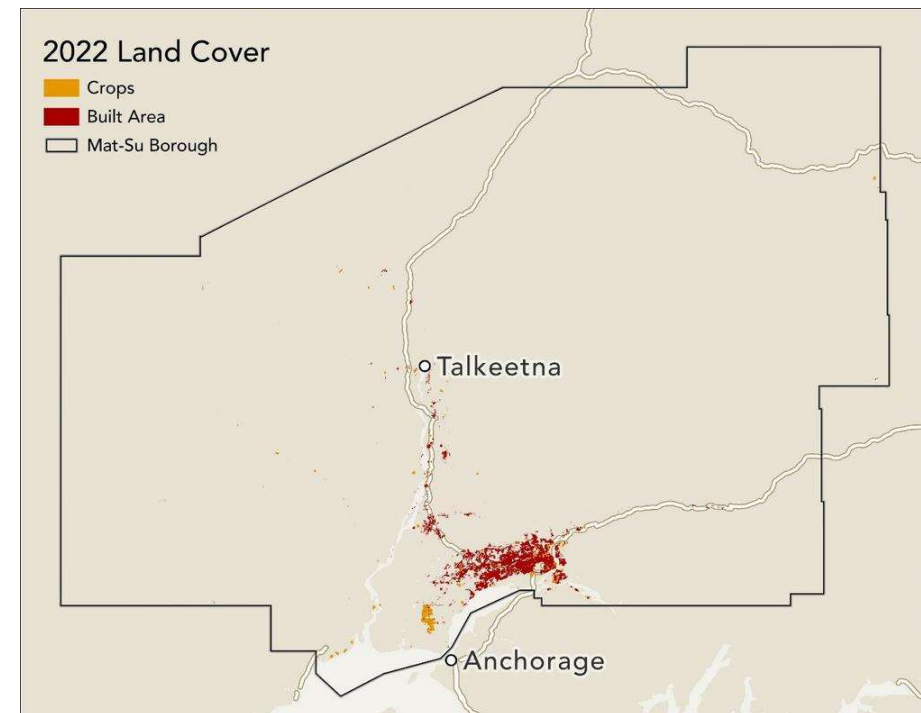
- As satellites orbit the earth, they capture images we can use to understand where hay fields and crop lands exists.
- Looking at Sentinel-2 satellite imagery over time, we found evidence that corroborates our findings from Mat-Su Borough farm deferments.



Farmland Decrease & Development Increase



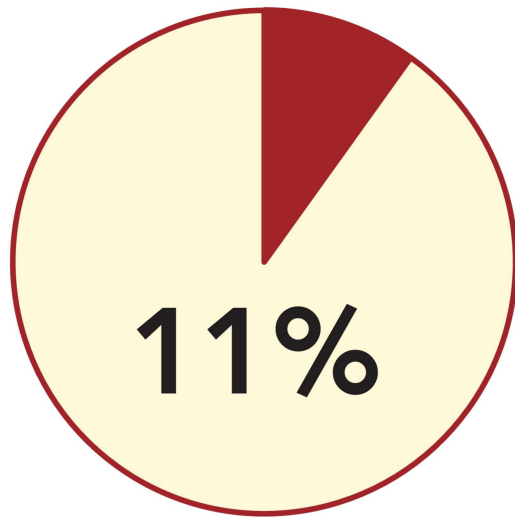
Class	Area (mi²) 2017	Area (mi²) 2022	Change (mi²)	Percent Change
Crops	11.5	9.4	-2.1	-18.1 %
Built Area	100.5	139.3	38.8	38.6 %



Data Source: Land use/land cover (LULC) derived from ESA Sentinel-2 imagery at 10m resolution.

Over the last 10 years...

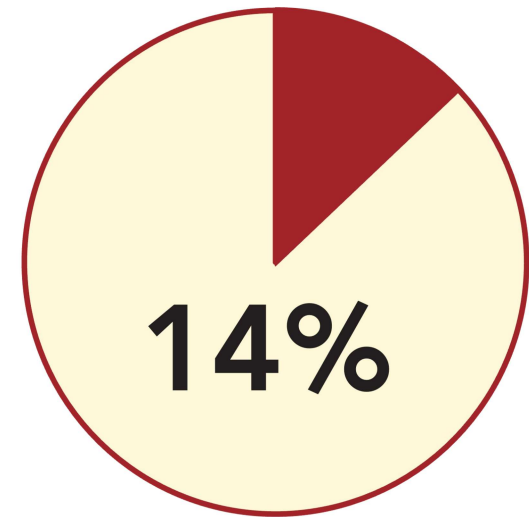
The Mat-Su Borough lost



of its farmland



The Mat-Su Borough gained



of developed areas



**Preserving existing farmland now
prevents Alaska's food insecurity
problem from getting worse, and allows
Mat-Su to continue feeding Alaskans.**



**ALASKA
FARMLAND TRUST**

Amy O'Connor
Executive Director
Alaska Farmland Trust

Your land grant university working for Alaskans



Jodie Anderson

Director, Institute of Agriculture, Natural Resources and Extension



UAF INSTITUTE OF AGRICULTURE,
NATURAL RESOURCES & EXTENSION
University of Alaska Fairbanks

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On September 13, 1922, the Alaska Agricultural College and School of Mines was dedicated in Fairbanks. It was the first college to be created in Alaska.

The college was established five years prior to its dedication and became the land grant university for Alaska. In 1935, the college was re-named the University of Alaska Fairbanks.



The Land Grant Mission

WHAT We Do

Outreach and Education

Translating information learned during research to the stakeholders to improve their lives.



Research

Creating and carrying out the research to meet stakeholder needs.



HOW We Do It

Two-way Communication

Listening to and sharing with communities to identify critical issues; Staying accountable and transparent through regular reporting.



Asking the Right Questions

Assessing progress and making adjustments to stay responsive and relevant.



Success in Alaska



Sunshine Barley
- released 2009



Alaska
Peony
Industry
2001

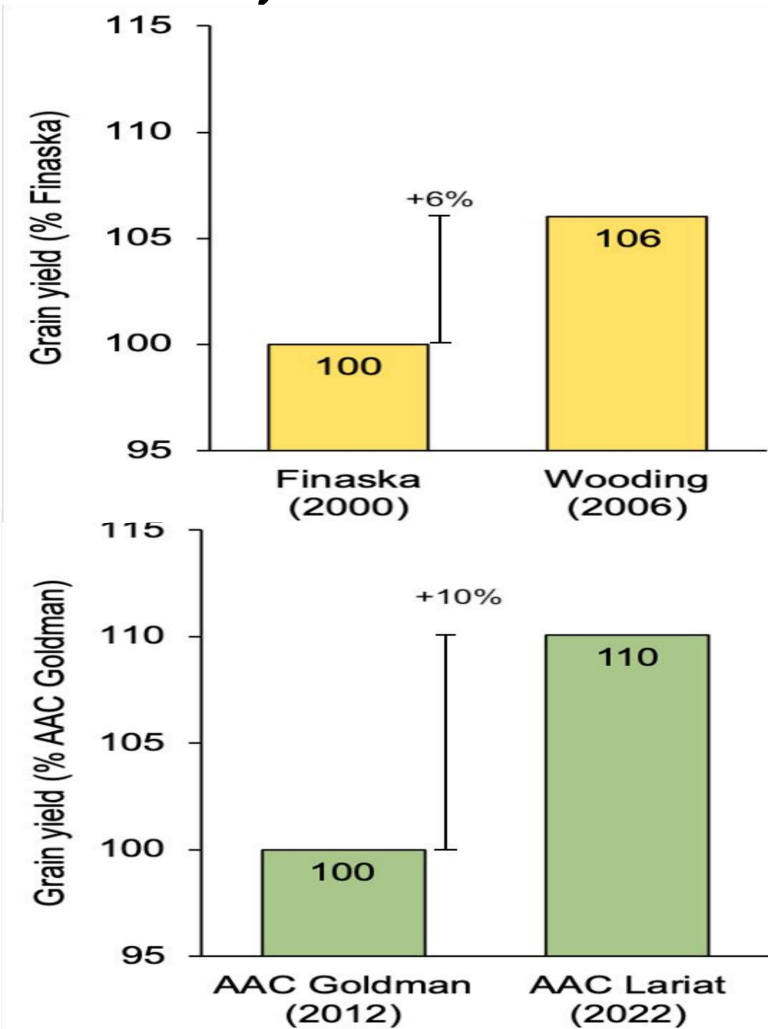


ALASKA
FLOUR COMPANY



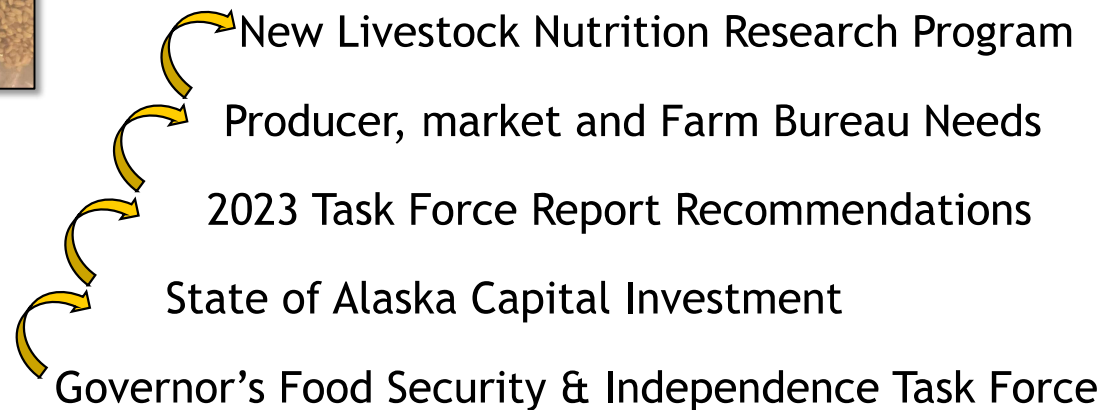
Alaska Demands (and Deserves) More

- Plant breeding programs make, on average, 1% - 1.5% improvement each year
- UAF barley breeding program used to maintain 1% per year improvement like Canadian barley breeding
- No genetic improvement in Alaskan barley in the last 20 years due to no breeder on staff
- It matters . . . Increased production with reduced inputs and improved efficiencies results in lowering input costs for producers



Leapfrogging into the Future

Spring Camelina





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QUESTIONS?



Agriculture,
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