



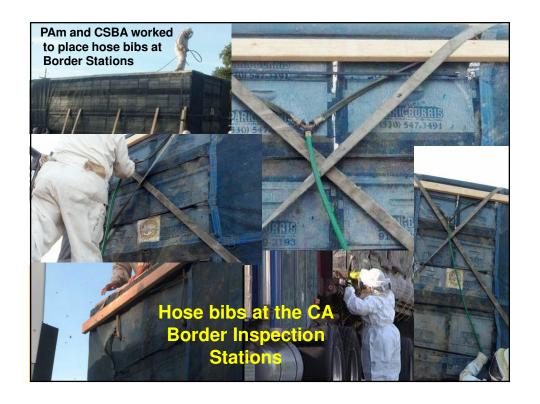


ect Apis m. Current Pr				CIS
Ellis	UF	Varroa Control-RNAi	Ś	16,83
DeRisi	UCSF	Viruses & Pathogens II	\$	45,00
Bromenshenk	Bee Alert		\$	36,00
Flenniken	MSU	Virology & Immunology	\$	43,500
Martin	UK/HA	Virus-Pathogen Complex	\$	32,55
Wick	BVS, Inc	Virus & Essential Oils	\$	15,000
Spivak	U MN	Landscapes & Nutrition	\$	10,000
Huang et al	MSU	Amino Acids	\$	27,50
Eischen	USDA	Colony Density Almonds	\$	16,20
Pettis	USDA	Amitraz	\$	33,140
Frazier	PSU	Pesticide CostShare	\$	10,000
Johnson, R	OH State	Pristine	\$	29,690
vanEngelsdorp	U MD	Midwest Tech Transfer	\$	21,430
Mueller	UCCE	On-Line Tools	\$	3,30
			\$ 3	340,151















How Costco Will Help Enhancing Honey Bee Health Through...

- New Tech Transfer Team
- Legacy Germplasm Library
- Costco Scholar

Project Apis m.

SJV Tech Transfer Team

- Monitor colonies over time for diseases and mite pests
- 2. Ensure colonies are healthy for pollination
- 3. Facilitate cooperative research





Legacy Germplasm Library



- Maintain a functional and sustainable genetic repository for honey bee germplasm
- Long-term honey bee stock preservation and improvement
- Maintain and increase genetic diversity
- Vital to the beekeeping industry
- Best long-term solution to honey bee problems

Project Apis m.



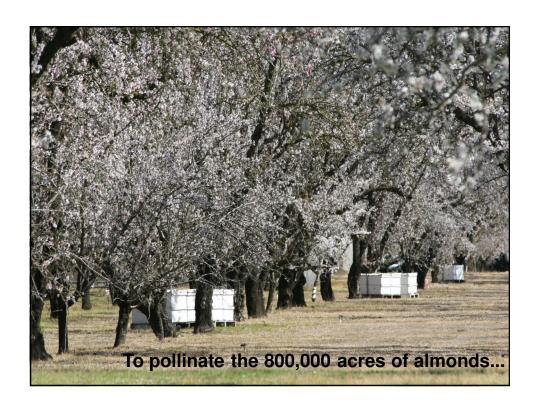
Costco Scholar

- Invest in today get something back today
- Costco developing a honey bee researcher
- PhD student level
- 1st ever multi-year fellowship initiated
- Legacy contributions
- Others in the industry to follow lead

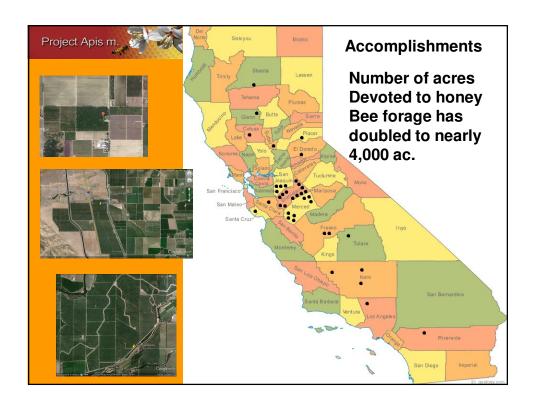






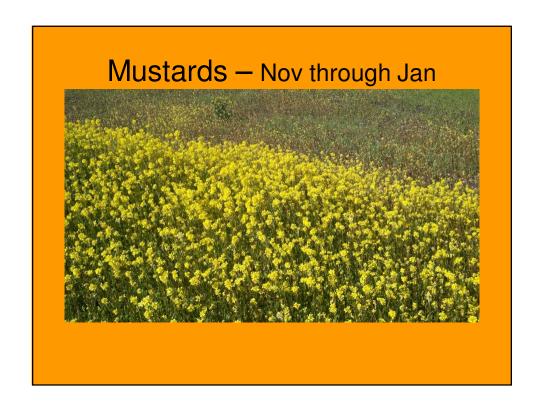


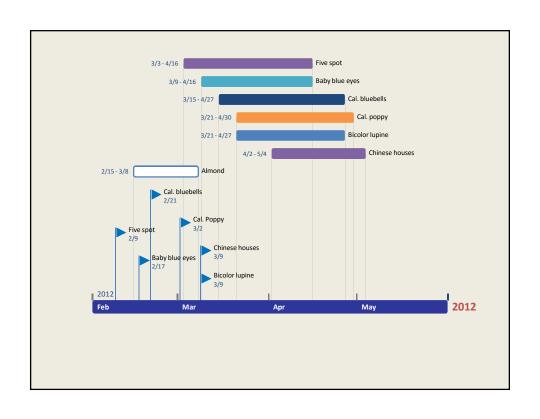




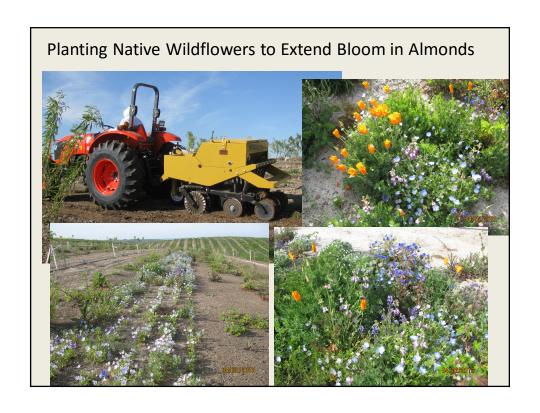


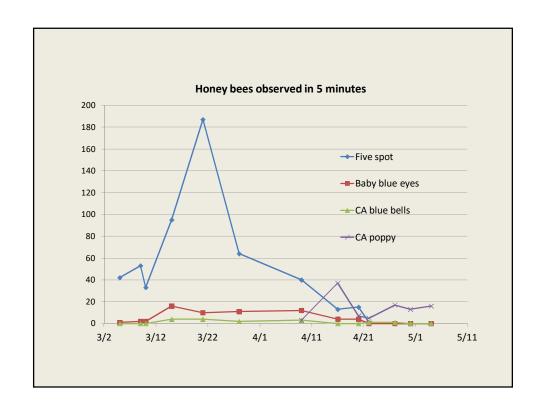


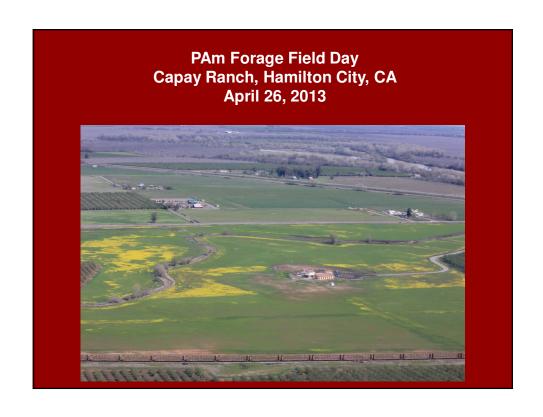








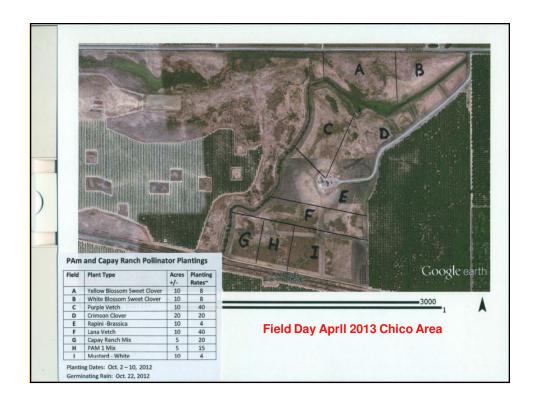




PAm and Capay Ranch Pollinator Plantings

Planting Dates: Oct. 2 – 10, 2012 Germinating Rain: Oct. 22, 2012

Field	Plant Type	Acres +/-	Planting Rates~lb/ac
Α	Yellow Blossom Sweet Clover	10	8
В	White Blossom Sweet Clover	10	8
С	Purple Vetch	10	40
D	Crimson Clover	20	20
E	Rapini -Brassica	10	4
F	Lana Vetch	10	40
G	Capay Ranch Mix	5	20
Н	PAM 1 Mix	5	15
I	Mustard - White	10	4





Accomplishments

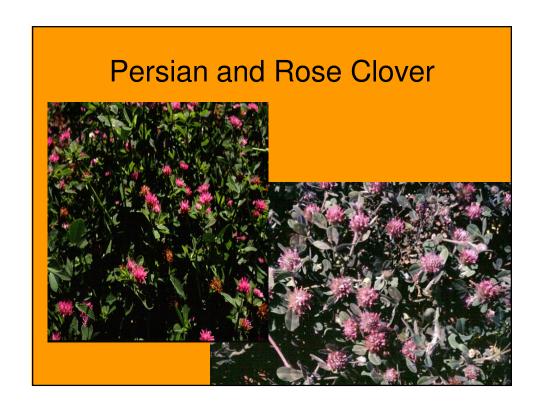
Identified hurdles to planting honey bee forage.

- Lack of natural rainfall to germinate seeds
- Weed pressure
- Costs associated with cultivation, labor and fuel
- Hesitation to introduce plants that may require additional control & management measures
- Inability to recognize appreciable benefits of planting honey bee forage – business model need













Accomplishments

Identified benefits to growers.

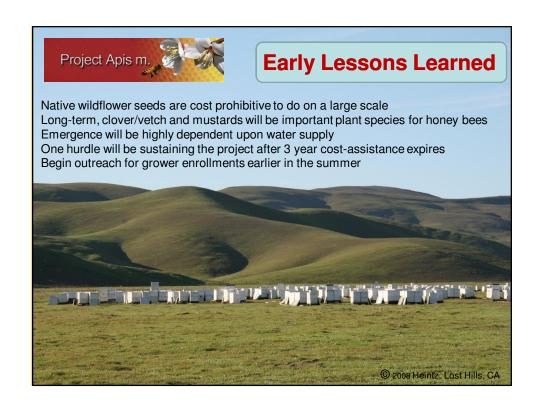
- Soil stabilization and reduced runoff
- Nitrogen fixation
- Addition of organic matter to the soils
- Decreased soil compaction and increased water penetration
- Increased habitat for not only honey bees, but other beneficials
- Potential to reduce pollination rental expense
- Contribute to crop pollination and yield

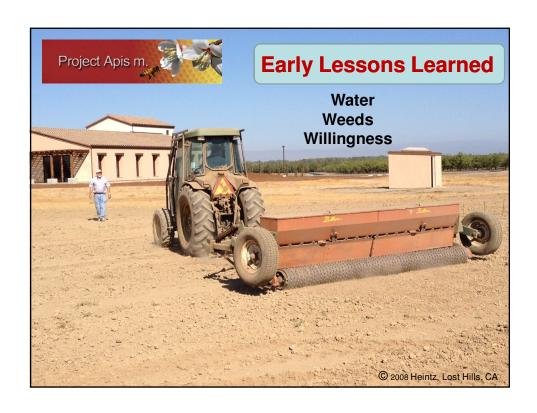






















Facebook and Promoting

Best Management Practices

Sharing from other networks is easy

Instant access

Albums & Timelines

Personal, can show real people doing real things

Very Visual-lots of pictures

Beekeepers can better connect with information and to others

Easily linked to other sources of information

Can keep information continuously flowing- new day new BMP focus

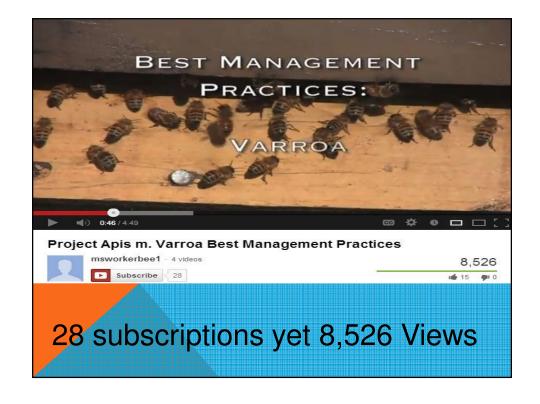
Continuous flow of information can be tailored to the season

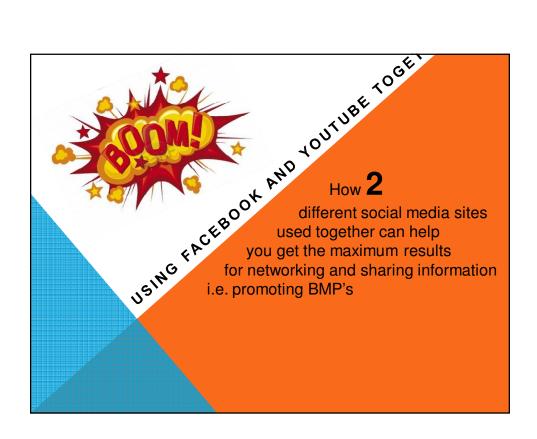
Youtube is a video sharing website that allows you to post share and upload personal videos for the world to see.



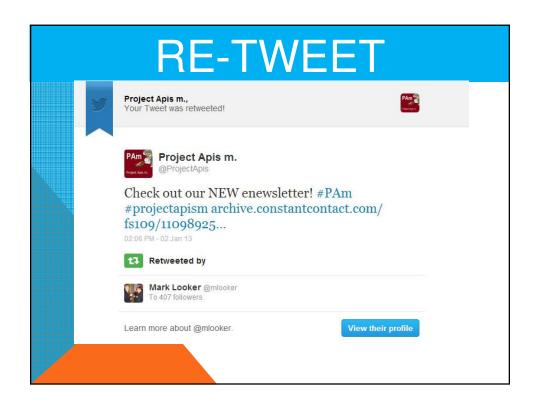
Unsure how to get started with youtube.com?

You will Project Apis m. Transporting Honeybee Colonies to California for Almond Pollination then by msworkerbee1 . 5 months ago . 691 views $\begin{array}{c} \textbf{Project Apis m.} \ (\text{PAm}), \ a \ \text{non-profit honey bee research organization,} \\ \text{promotes Best Management Practices (BMPs) for improving ...} \end{array}$ come to a Project Apis m. Varroa Best Management Practices by msworkerbee1 * 2 years ago * 8,507 views screen Project Apis m. (PAm), a non-profit honey bee research organization, promotes Best Management Practices (BMPs) for improving ... full of **Videos** Project Apis m. Nutrition Best Management Practices that by msworkerbee1 * 6 months ago * 216 views Project Apis m. (PAm), a non-profit honey bee research organization, promotes Best Management Practices (BMPs) for improving ... relate to what Project Apis m. Nosema Best Management Practices by msworkerbee1 + 6 months ago + 274 views vou Project Apis m. (PAm), a non-profit honey bee research organization, promotes Best Management Practices (BMPs) for improving ... searche























What Project Apis m is doing for BEEKEEPERS

- 1. Prioritizing honey bee *research* for the industry and conducting the research
- 2. Building honey bee forage resources
- 3. Improving California border crossings
- 4. Seeking additional grant and corporate <u>funding</u> to meet beekeeper needs



Grants and Corporate Funding Projects

Monsanto – ND Dept Ag - pollen quality Costco -

CDFA Grant - honey bee forage honey bee forage CDFA Grant - BMPs & social media SJV Tech Transfer Honeybee germplasm Costco scholar PhD

New Pres.

Together, we can solve bee challenges and improve crop production.





What we WANT to do...

PAm is requesting YOUR help in funding research projects TODAY to help the honey bee NOW.

We especially want to fund recent proposals we have received. Bee research GUIDED by beekeepers. PRACTICAL solutions!



Projects we want to fund

- · Dr. Reed Johnson Dimilin Research
- Maryann Frazier Pesticide Cost Share Program
- Dr. Brian Johnson IVDS (Integrated Virus Detection System)
- Dr. Johnathan Engelsma Hive Scale Network
- Dr. David Tarpy Nexcelom Vision System to process BIP (Bee Informed) samples



