
dB2 vision
MORE THAN MEETS THE EYE
LaQuinta

WELCOME

WHO ARE WE:

We are DB2 Vision | 3 man start-up of industrial camera specialists

In June 2019, after nearly 3.5 years of development, we were proud to introduce **LaQuinta.**

A revolutionary multispectral hybrid sensor camera for Precision Agriculture to identify crop stress before the human eye can detect it

LaQuinta is the most fully featured, yet lowest cost Multispectral AG-Tech camera in the world

OUR GOAL:

Developing high-tech yet low-cost equipment to become financially accessible to every individual farmer or agronomist.

OUR VISION:

Enabling the farmer to maximize its crop output while using the minimum amount of resources!

IGNO BREUKERS
Executive Director & Co-Founder

PROBLEM

(Example: Vineyard)

1. This image is generally what a farmer sees when he works his land

- Hard to observe localized issues
- Time consuming
- Some underlying problems are not visible to the naked eye

2. This image is what a farmer can see flying his land with a drone and normal camera

- Less time to observe your land
- But..

No clear signs of crop stress and vigor

3. This image is what a farmer can see when flying with complex, expensive multispectral technology

- Easy to identify problem areas
- Treat during the season, not after
- Dramatically improve crop output and save valuable resources

SOLUTION

Aided by the impressive rise of UAVs the field of Precision Agriculture is growing exponentially

Mass Adoption

DB2 Vision has spectacularly overcome the problem of:
- the price of the (imaging) equipment needed
- the complexity of its use..

Pricing

Simply the Lowest Cost Multispectral UAV sensor for Agriculture in the World.. By Far.

System Agnostic

Whether UAV, Tractor or any other vehicle;
LaQuinta functions without dependency on its carrier; Anyplace, Anytime, Anywhere

Multi-compatible

No more suffering from compatibility anxiety!
LaQuinta is made to be compatible with all commonly used SW packages in the market.

OPPORTUNITY

(Example: China Market)

World’s #1 UAV manufacturer: 70+% of all UAVs worldwide.

Crop Spraying Drones are widely accepted and subsidized by central and local governments

8% of world’s total arable land, feeding about 21% of the global population.

Total crop production output: 1 Billion USD (RMB 6 Billion)

Annual loss of 24 million tons of crops due to pests and diseases (2016)

300% higher usage of pesticides than other important crop producing countries

<u>The effects of China’s implementation of crop spraying drones:</u>

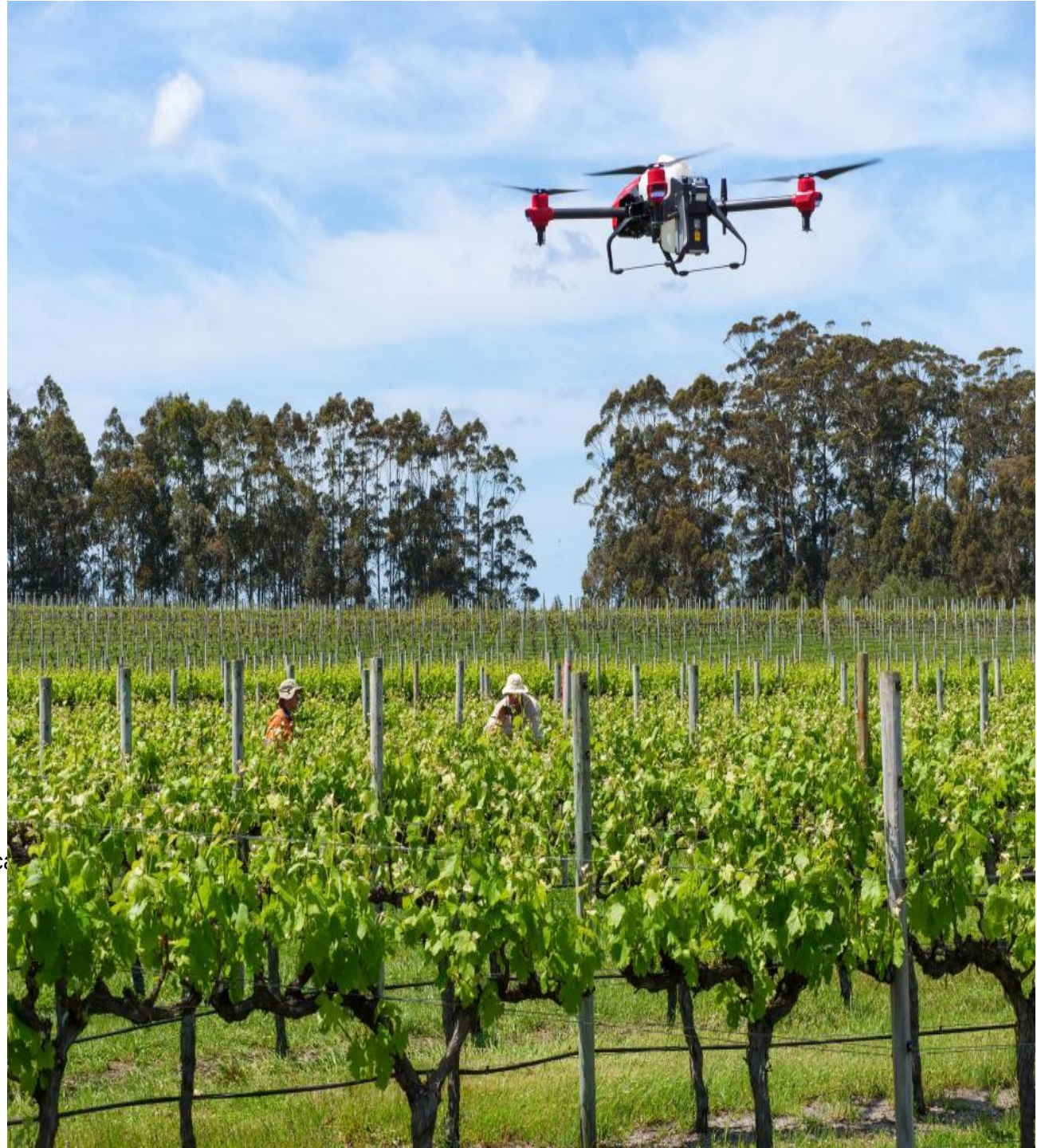
A spraying drone can cover 50x more land per hour than manual spraying

While saving 60% of liquid crop protection products compared to manual spraying over-applica

STILL..

60% does not overcome the 300% overspraying

→ Localized spot spraying will!



LaQuinta vs Competition

MARKED GREEN = BEST PER SPEC									
	Tetracam Micro MCA-4	**MicaSense RedEdge**	**MicaSense/ Parrot Sequoia**	**Airinov multiSPEC 4C**	**Pixelteq Spectrocam**	**Quest Condor 3 UAV**	**Tetracam RGB+3**	**Sentera QUAD**	**DB2 LaQuinta**
Price (USD)	10000	5000	3500 in USA 3800 Euro in EU	13000	16000	7000	7500	4875	2195
Technology	multiple cameras	multiple cameras	multiple cameras	multiple cameras	filterwheel	multisensor prism	multiple cameras	multiple cameras	single R-G-B-NIR sensor
Narrow Channels	4	5	4	4	8	5	3 + 1x RGB	3 + 1x RGB	4
Lens/ exchangeable	9.6mm M12/ NO	8mm M12/NO	8mm M12/NO	10mm M12/NO	F-mount/ yes	12.8MM M30 / yes (NRE)	9.6mm M12/ NO	M12/ No	M12-mount/YES (8mm = standard)
Sensor(s)	4x 1.3MP	5x 1.3MP	4x 1.3MP	4x 1.3MP	1 x 1.4MP	3 x 1MP	4x 1.3MP	3x 1.2MP/ 1x 12MP	1x4.1MP(4 x 1+MP per channel)
Storage	16GB SD per channel	32GB SD	64GB SD	32GB SD	-		16GB SD per channel	32GB	64GB SD
GPS	optional	optional	yes	no	no	no	optional	optional (serial interface)	yes
callibration	callibration plate	callibration plate	irradience sensor	irradience sensor	no	no	callibration plate	callibration plate	irradience sensor
Video-Out	NTSC	no	no	no	no	no	NTSC	no	PAL,
Trigger in/ out	yes	yes	yes	yes	no	yes	yes	yes	yes
Battery/ Internal or External	external optional	external optional	external optional	external optional	external optional	external optional	external optional	external optional	internal rechargeable + external optional
Control	buttons + external display or PC	Ethernet Control	Wifi control	PC	PC	PC	buttons + external display or PC	Ethernet control	Bluetooth + Android or iOS App/ Touchscreen display
Filters/ bandwidths exhangeable	optional	optional		no	optional	optional	no	optional	optional
Size (mm) and weight	117 x 70 x78 @497	121 x 66 x 46 @ 150g	59 x 41 x 30 @107g	~130 x ~60 x ~50 @ 170g	136 x 124 x 105 @ 680g	70 x 60 x 130 @ 360g	116 x 80 x 50 @400g	56 x 96 x 52 @126g	78 x58 x 56 @159g **INCL. INTERNAL 1hr BATTERY**
Image Format	RAW	RAW	RAW + video	RAW	RAW	RAW	RAW	RAW + video	RAW
Framerate (in best format)	0.2 FPS	1FPS max	1FPS max	1 FPS	2.5 FPS	1.2 FPS	0.2 FPS	1FPS	1.5FPS

Sioux Technology

Sioux China partners

Db2-Vision
Uden, the Netherlands
http://www.crop-sensors.com

Jiangnan University
Wuxi, Jiangsu, China
http://www.jiangnan.edu.cn

Zhejiang University
Hangzhou, Zhejiang, China
http://www.zju.edu.cn

Eindhoven University
Eindhoven, the Netherlands
http://www.tue.nl

JITRI
Nanjing, Jiangsu, China
http://www.jitri.org

SZTU
Shenzhen, China
http://www.sztu.edu.cn

Sioux China – Your local development partner

Smart **SERVICES** design

MEETS

Smart **SYSTEMS** design

- **Sioux's role:** Sioux acts as the R&D department of smart farming & precision agriculture OEM's and service providers
- **Sioux competencies:**
  - UX-oriented approach
  - System architecture design
  - Application software
  - Mathware development
  - Embedded software
  - Electronics development
  - Mechatronics development
- **Benefits to our customers:**
  - Competitive advantage through enabling technologies
  - Lower development costs
  - Faster time-to-market

Development services for smart farming & precision agriculture

Sioux supports **OEMs** and **SERVICE PROVIDERS** of **SMART FARMING** and **PRECISION AGRICULTURE** solutions in their development of the following value-adding applications:

- Agriculture 4.0 IoT system design & development
- Image processing and analysis application development
- Mathematical modeling & simulation for agriculture
- Drone simulation and operations optimization
- Sioux R&D program: Hyperspectral imaging data processing
- Sioux R&D program: Automated chatbot technology

Direct Sales

Worldwide Sales Network

New Agricultural Solution

Unrivalled Proposition with LaQuinta

YUNEEC

Indirect Sales

Large Agricultural Projects through Sioux / WUAVF / TusPark a.o.

Sales direct through DB2 customers