



Greenhouse businesses with high profitability in Japan
~Towards an increase of yield and decrease of costs~

Create a Sustainable Industry based on Geothermal Energy



■TAKAFUJI-GROUP
Head office



■TAKAFUJI-GROUP
Agricultural production co



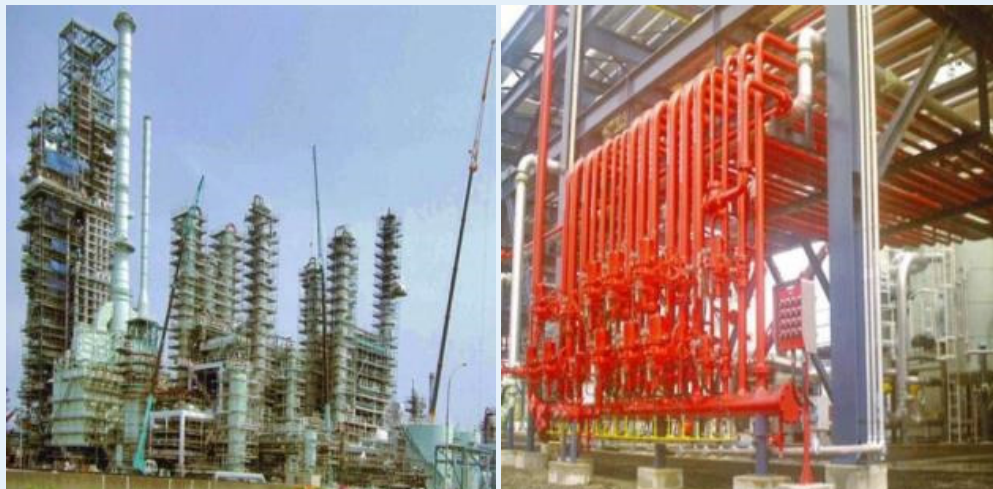
■TAKAFUJI-GROUP
Product development & Café restaurant

Art Table Ironowa



(1988~)

PLANT BUSINESS



ENVIRONMENT / BIOMASS BUSINESS



MAINTENANCE BUSINESS



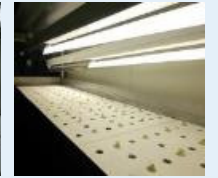
POWER GENERATION BUSINESS



(2008~)

R & D : **Environmentally controlled VEGETABLE PLANT(CLOSED TYPE)**

“**With our own plant technology** we will boost the future of Japanese agriculture!” With that thought we established a **Research & Development section on our plant factory.**
Start the cultivation of safe vegetables.



(2009~)

JOINT INVESTMENT : Paprika Green House (16,000㎡)



YOUNG PLANT of PAPRIKA

INSIDE of GREEN HOUSE

INSIDE of BOILER ROOM

HEAVY OIL

PRICE TRANSITION of HEAVY OIL (UNIT: 1L)



Unit: Yen %

		April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Current year	Change with previous year
2015	平均	68.90	64.18											64.04	-15.7
	最高	68.04	68.04											68.04	-28.9
	最低	60.00	60.00											60.00	1.7
2014	平均	83.74	83.79	83.15	83.70	82.32	78.64	75.28	73.75	72.65	67.31	64.27	63.53	76.01	-24.5
	最高	95.74	93.00	89.60	90.72	88.56	83.00	79.00	76.00	75.60	74.00	69.00	69.00	95.74	-14.5
	最低	75.00	80.00	80.00	80.00	78.00	75.00	72.00	70.00	70.00	60.00	60.00	59.00	59.00	-21.3
2013	平均	104.98	105.42	105.88	107.45	107.36	106.63	105.75	103.69	100.78	91.20	84.38	84.43	100.66	-0.1
	最高	112.00	112.00	112.00	112.00	112.00	110.00	110.00	108.00	107.00	104.92	95.00	95.74	112.00	-1.8
	最低	95.00	95.00	95.00	100.00	100.00	100.00	97.00	93.00	90.00	85.00	76.00	75.00	75.00	-16.0
2012	平均	99.13	97.24	97.14	98.19	98.46	100.52	101.19	103.19	102.37	104.37	103.80	102.90	100.71	5.5
	最高	104.00	101.00	101.00	103.00	105.00	105.00	109.00	110.00	109.00	114.00	114.00	112.00	114.00	3.6
	最低	90.00	90.00	90.00	90.00	90.00	93.00	89.25	90.00	92.00	94.00	94.00	93.00	89.25	8.8
2011	平均	99.89	96.92	92.88	89.10	89.38	92.90	92.81	92.16	95.53	98.92	103.05	102.43	95.50	2.4
	最高	110.00	105.00	98.00	96.75	96.00	98.00	98.00	98.00	102.00	107.00	109.00	109.00	110.00	3.8
	最低	95.00	90.00	85.00	82.00	84.00	87.00	88.00	87.00	90.00	90.00	90.00	90.00	82.00	5.1
2010	平均	97.37	98.65	95.87	93.42	94.35	91.11	88.50	88.71	91.03	91.27	92.44	96.88	93.30	13.3
	最高	100.80	102.00	100.00	96.60	96.00	96.00	94.00	97.00	101.00	101.00	101.00	106.00	106.00	8.3
	最低	95.00	95.00	85.00	85.00	91.00	78.00	78.00	78.00	80.00	80.00	83.00	90.00	78.00	12.2
2009	平均	77.90	83.96	82.83	81.92	81.23	77.89	76.93	77.58	80.00	85.38	87.49	95.09	82.35	13.6
	最高	82.00	88.00	86.00	85.00	85.00	84.00	84.00	84.00	86.00	90.00	91.00	97.90	97.90	19.4
	最低	72.00	80.00	77.50	77.50	76.00	70.00	69.50	72.00	75.50	81.00	82.70	92.00	69.50	17.8
2009	平均	68.33	69.25	67.88	70.43	70.28	72.72	74.03	72.80	74.96	75.15	77.10	76.69	72.47	-28.7
	最高	76.65	78.00	76.65	78.75	78.00	80.00	80.00	82.00	82.00	82.00	82.00	82.00	82.00	-41.0
	最低	63.00	64.00	62.00	59.00	66.00	60.00	68.80	60.90	70.00	68.50	73.30	74.00	59.00	-6.3

For example!

Heating necessary for cultivation (A heavy oil amount) = 500KL

heating fee 500KL×UNIT PRICE 59 yen (2009/7) = 29,500,000 yen (236,000 Euro)

After 5 years the price went up 500KL×UNIT PRICE 112yen (2014/7) = 56,000,000 yen (448,000 Euro)

Amount difference ! 26,500,000yen ! (212,000 Euro)

※In case of 3.2ha(3.0+0.2ha) double it to 6000 million yen ~12000 million yen (Average 9000 million yen)

(2013~)

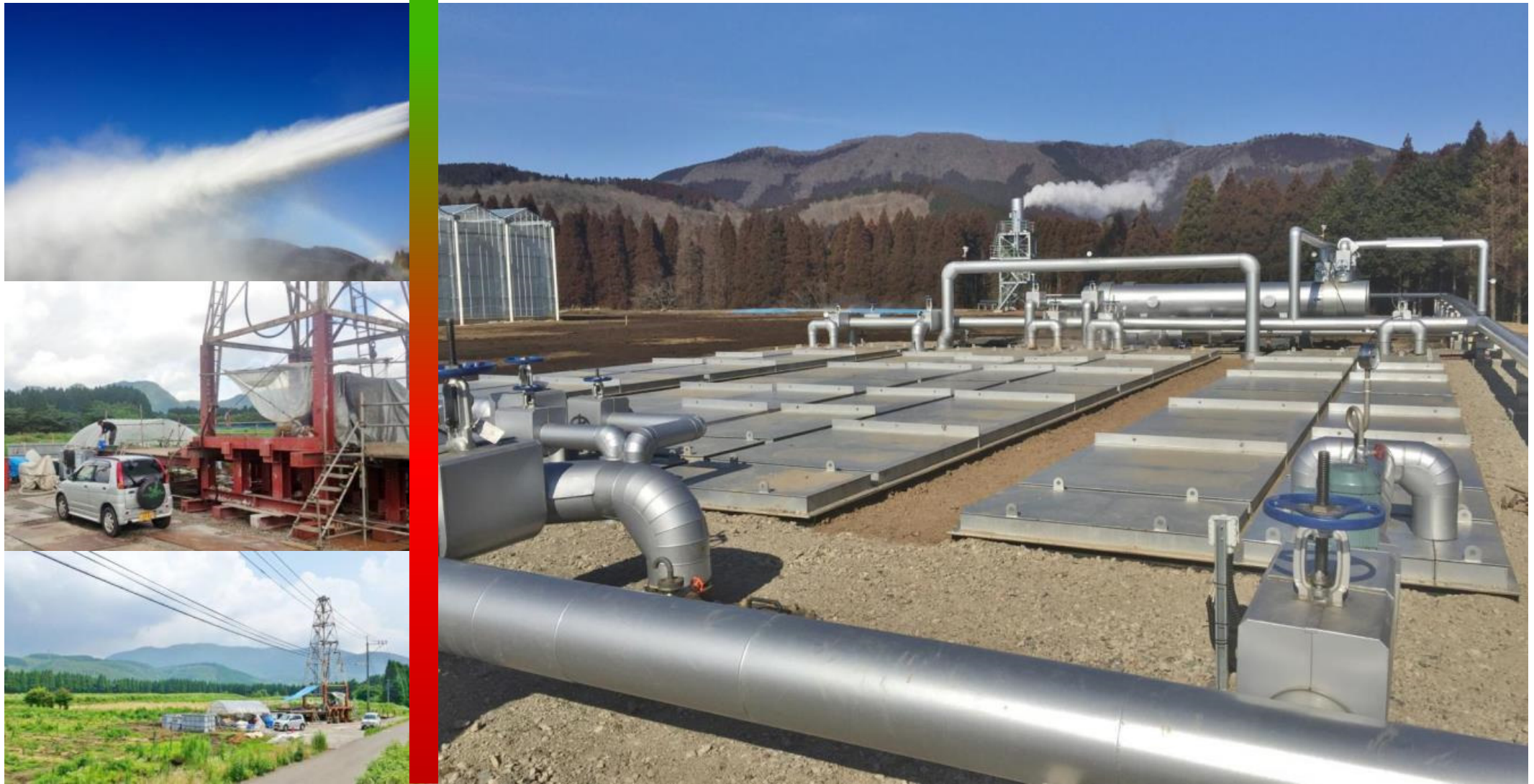
TAKAFUJI-GROUP
GEOTHERMAL HEAT-EXCHANGE SYSTEM



Geothermal development · Well drilling...

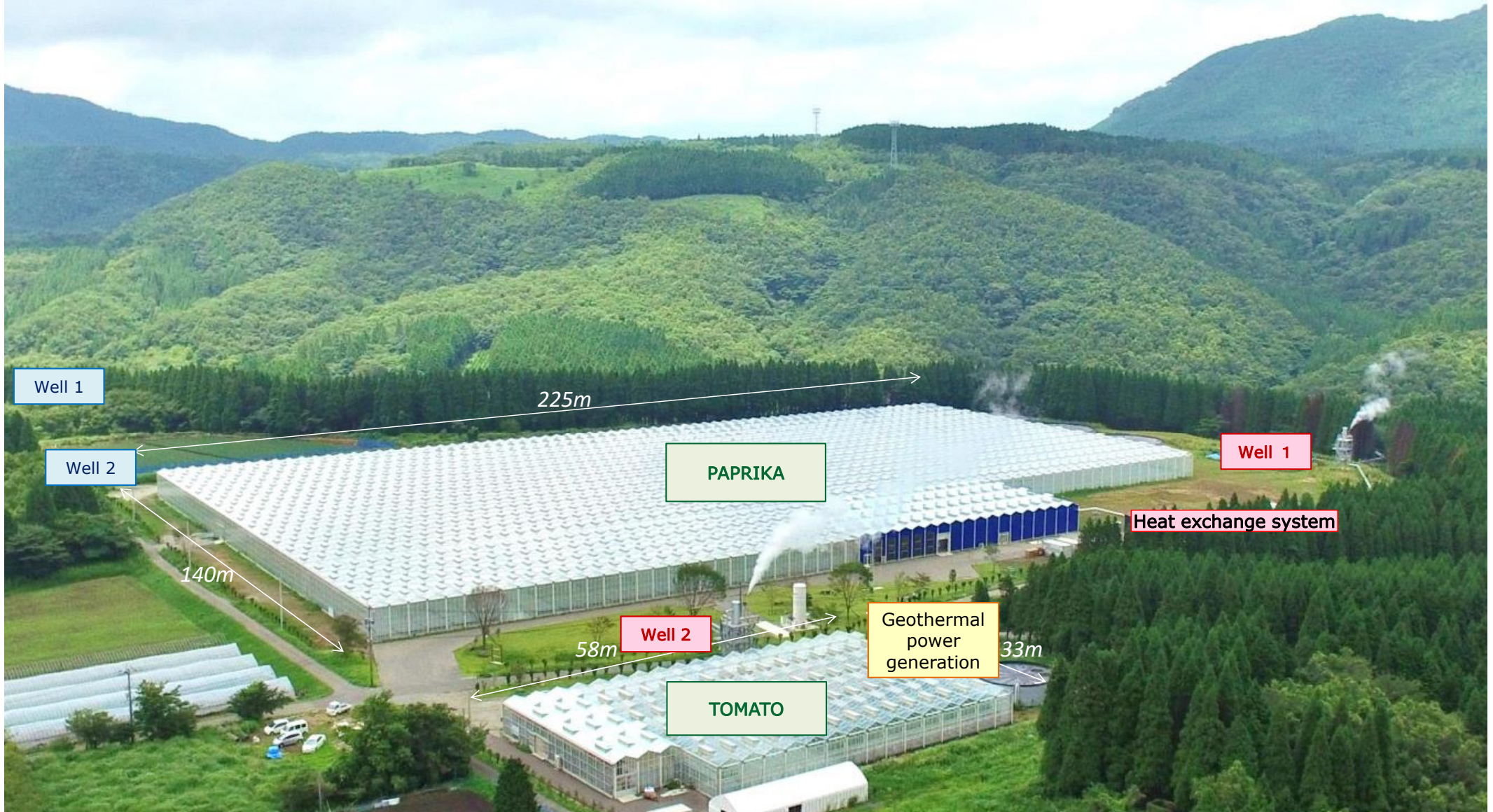
We developed a heat exchange system. ※Patent acquisition

Reducing energy costs in agriculture · Production~To maximize sales by positive branding.



(2015-2016~)

TAKAFUJI-GROUP
Takahiko Agro-Business co.,Ltd.



30,000㎡ PAPRIKA
2,000㎡ TOMATO
2 GEOTHERMAL WELLS
2 WATER WELLS

(Hot spring heat)

GEOHERMAL × ENVIRONMENT × RESOURCE



We think about...

「securing **sustainable** resources」

through “Energy x Agriculture”.

FOOD -resource

WATER -resource

ENERGY -resource

HUMAN -resource

TAKAFUJI-GROUP Takahiko Agro-Business co.,ltd.
Takahiko Agro-Business co.,ltd.



TAKAFUJI-GROUP and HOLLAND



TAKAFUJI-GROUP Takahiko Agro-Business co.,ltd.
Takahiko Agro-Business co.,ltd.

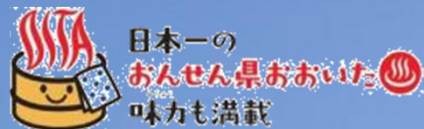


TAKAFUJI-GROUP Takahiko Agro-Business co.,ltd.
Takahiko Agro-Business co.,ltd.



TAKAFUJI-GROUP ART×TABLE (IRONOWA)
SUGGESTION HOW TO EAT~PRODUCT DEVELOPMENT~PROMOTION





日本一の
おんせん県おおいた
味力も満載



TAKAFUJI GROUP

株式会社 夕カヒコアグロビジネス

Takahiko Agro-Business co.,Ltd.



日本パプリカ



おんせん県おおいた
味力も満載