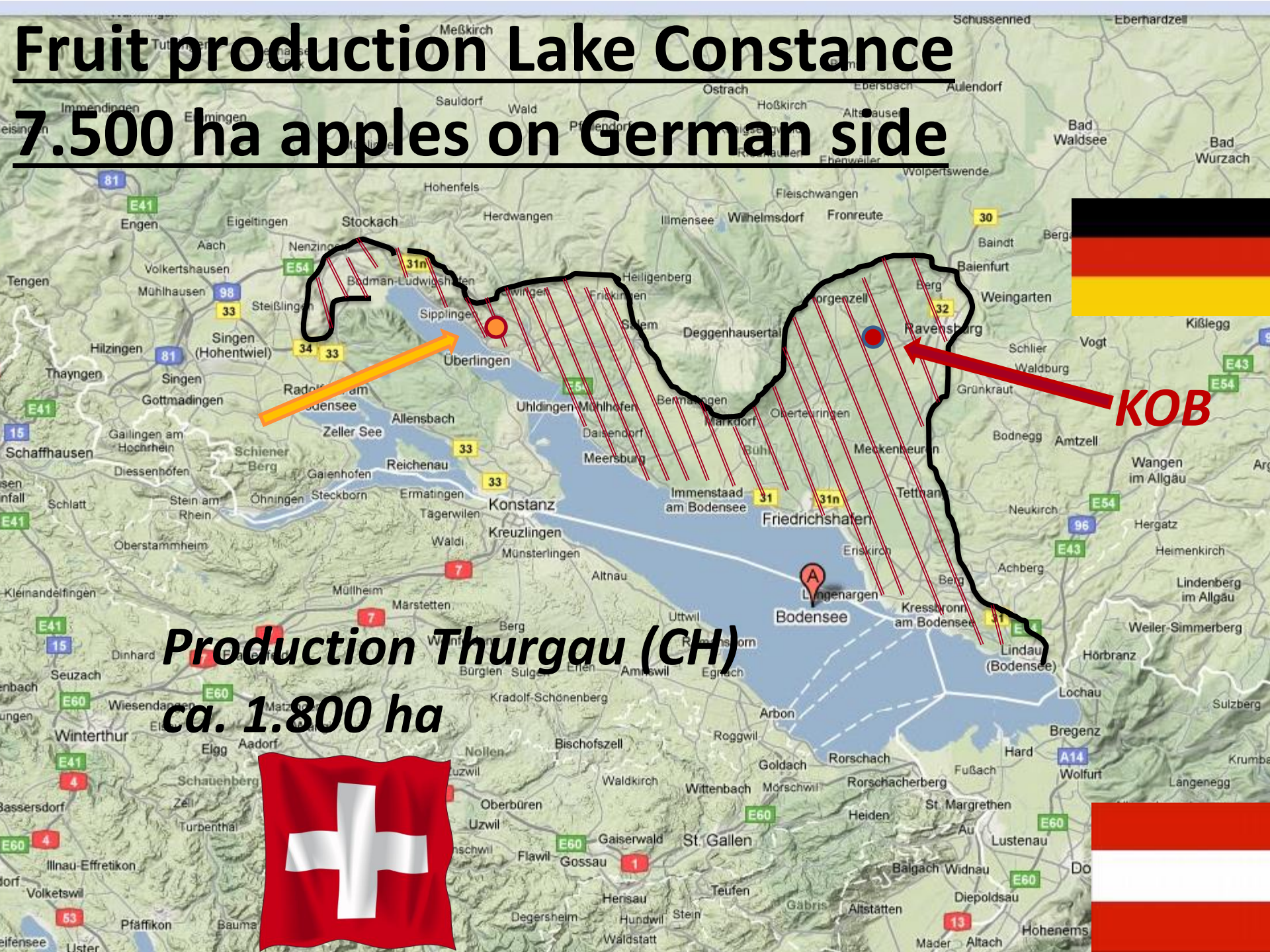
KOMPETENZZENTRUM
OBSTBAU-BODENSEE

- **Fruit production Bodensee**
- **Research Station KOB**

Dr. Manfred Büchele

Fruit production Lake Constance

7.500 ha apples on German side





Starting modern production in 1960

Production ~ 8 000 ha

1 600 growers, ca. 800 part time

250.000 – 300.000 t table fruits (25-30 % of Germany)

3 Producer organizations 75% of sales

200 - 250 Mio € sales

Problems

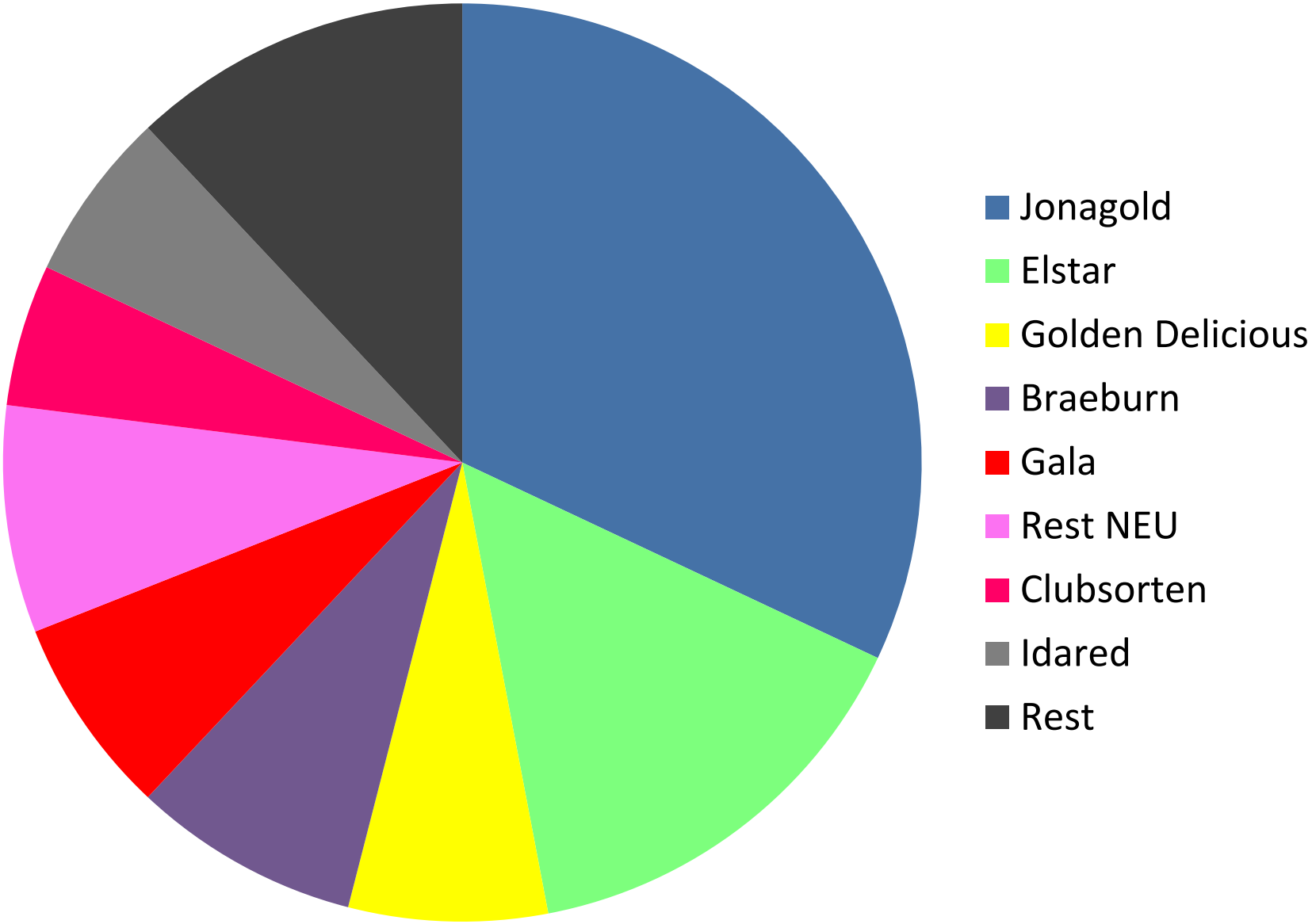
- Plant protection: Scrab, Codling moth, fire blight etc.
- High investments: 40% of cultivars with hailnets

Advantages

- Well educated and trained farmers
- Good equipment, new modern cultivars
- Additional income: Tourism, direct sale, industry
- Support by Government (direct: 15 - 20% of income)
- Production in the middle of consumers (50% of consumption)



Production varieties



Modern production



Braeburn
2nd year
3,5 m x 0,8 m
10 t/ha

Modern production



Red Jonaprince
4th year
3,5 m x 0,8 m
68 t/ha

Production for processing





Modern CA-Storage for Apples

Sorting size/colour by P.O.





40 % of harvest CA-storage

Fruit production
Lake Constance
-Organization of sale-

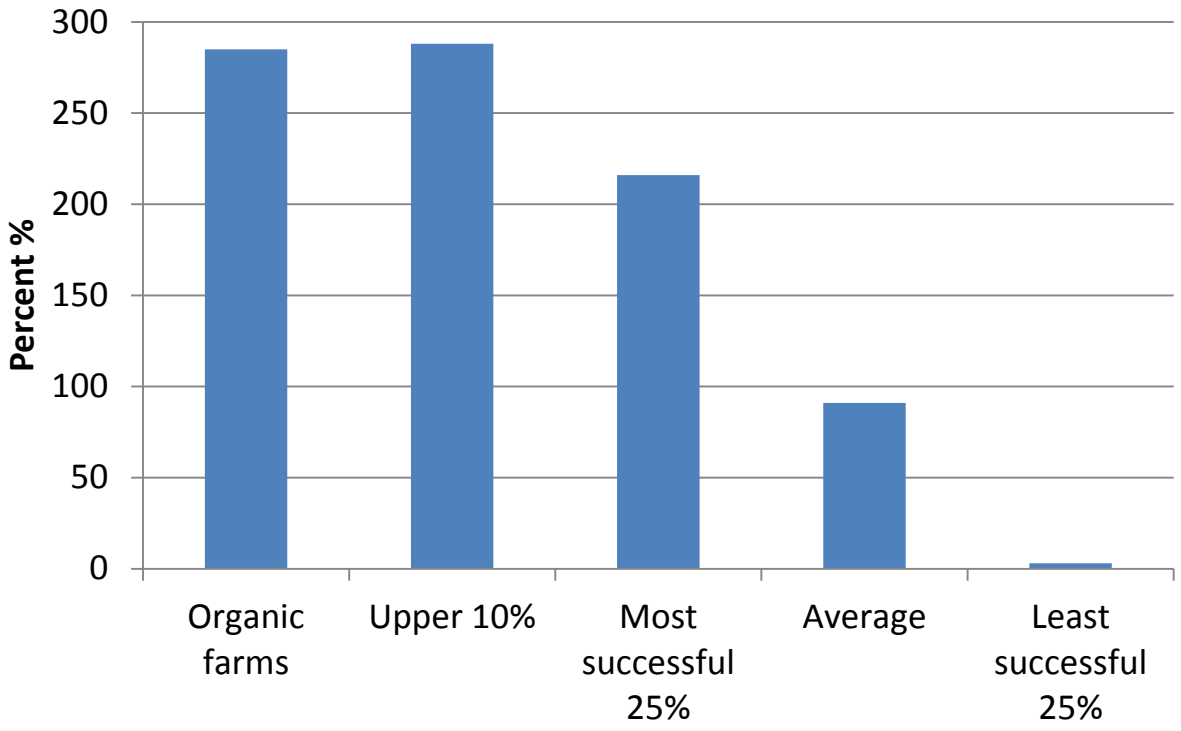


- Ca. 75 % organized sale of fruits (P.O.)
- 3 P.O. mastered by farmers but with professional staff
- Delivery retail and export centralized from 1 sales office
- Quality management system from farm to sales point
- High quality production with modern varieties, new orchards and best storage/sorting/packing equipment
- New markets (varieties, organic production)

No competition between famers or P.O. at the sales level but regarding services/contractors for fruit farmers


In der Sonne gebadet.
OBST VOM BODENSEE

Profitability of fruit growing farms – working group at KOB
Profit in relation to used capital

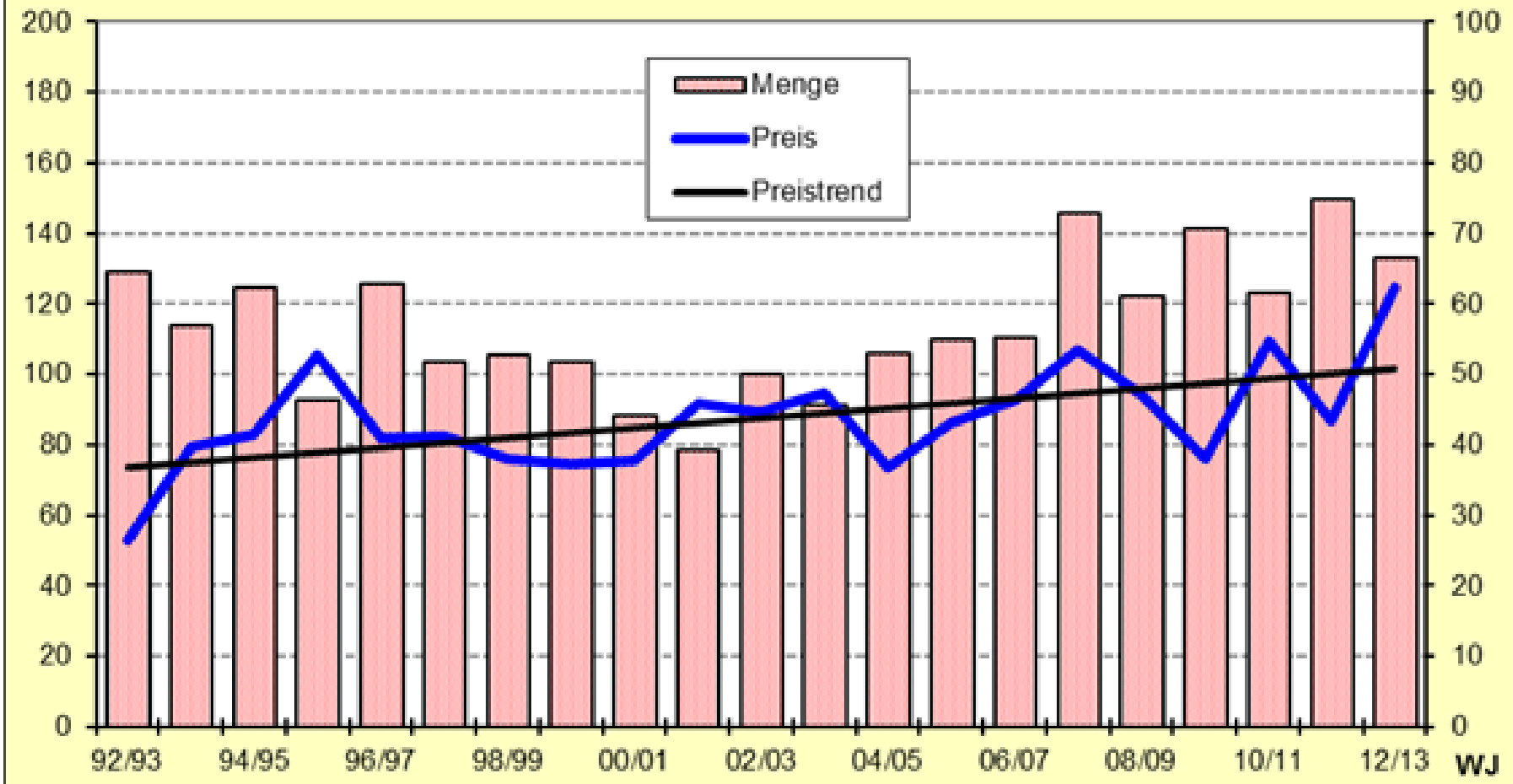


		Yield level			
Item	**€/ha**	**30 t**		**50 t**	
Storing, sorting etc Service P.O.			0,16 €		0,16 €
Fertilizer	200 €	0,01 €		0,00 €	
Plant protection	1.200 €	0,04 €		0,02 €	
Var. machine cost	700 €	0,02 €		0,01 €	
Others. v.K.	800 €	0,03 €		0,02 €	
Work	2.500 €	0,09 €		0,04 €	
Sum Var. Cost			0,19 €		0,11 €
Deprec./cost building	300 €	0,01 €		0,01 €	
Deprec./cost machine	600 €	0,02 €		0,01 €	
Other fixed costs	500 €	0,02 €		0,01 €	
Other Costs			0,05 €		0,03 €
Trees/trellis	1.200 €	0,04 €		0,02 €	
Hailnet	1.000 €	0,03 €		0,02 €	
Cultivars			0,07 €		0,04 €
Work Family	2.250 €	0,08 €		0,05 €	
Land	300 €	0,01 €		0,01 €	
Calculated cost			0,09 €		0,05 €
Production cost tot.	**8.750 €**		0,55 €		0,39 €

Production costs apple at Lake Constance - two yield levels

Sales and price table apple

(farmers price= -16 €/dt)

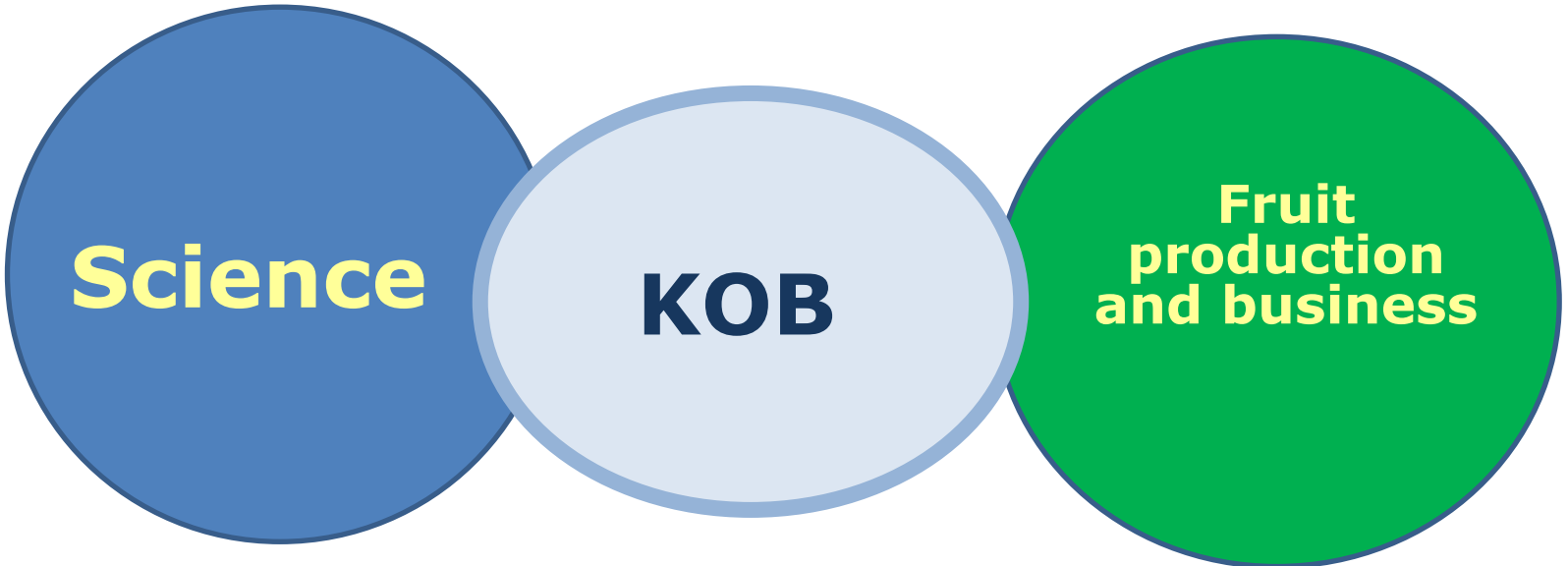


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Kompetenzzentrum Obstbau - Bodensee



Organization of KOB

	Foundation KOB	**partners und projects**
Science	Uni Hohenheim	TU München Koop. UEB Prag Brasilien (3) Adana (TR)
Applied science	KOMPETENZZENTRUM OBSTBAU-BODENSEE BADEN-WÜRTTEMBERG	FH Weihenstephan/Schlachters Weinsberg/LTZ Esteburg (D) ACW Wädenswil (CH) Laimburg (I) Haidegg (A) etc.
Organized sale	WOG ÖKOBO Ökologisches Bodenseeobst Marktgemeinschaft Bodenseeobst OGM OBER-KIRCH	
Consulting	consulting P.O.	Private consulting
Producer	LVEO In der Sonne gebadet LOGL	föko Fördergemeinschaft Ökologischer Obstbau e.V.
Trade/ consumers	**Consumers Schoolfruitprogram**	**Industry**

nets

COST

WEGA

EUFRIN

INTERREG

Dt. Genbank Obst

DGG



Experimental Resources

Experimental area total: 44 ha
24 ha integrated production, 20 ha organic production,
90% pome fruit, 10 % stone fruit

Storage facilities: 100t cooling and 400t CA-storage (12 rooms),
Storage for science purpose 48 compartments

Lab: 400 sqm. well equipped

Well educated and trained staff: 6 PhD, 4 M.Sc.,7 B.Sc., 10 students on internships, 4 workers in Lab, 8 workers in the fields,
70 temporary staff

Contacts to extension and farmers in other regions with important fruit production

Field of activities

Varieties & Organic production - Dr. Ulrich Mayr

Physiology – Michael Zoth

Plant protection – Dr. Christian Scheer

Postharvest physiology - Dr. Dominikus Kittemann

Fruit markets and farm management - Dr. Manfred Büchele

Thank you for your attention

