Strobilurin resistance in *Alternaria* isolates from Bavaria

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Leaf samples from 49 Bavarian potato sites, taken by the agricultural research stations, July/ August 2013

isolation work done by the Mycology Department, LfL

→ *Alternaria* isolates from 43 sites, in total 133 isolates (*Alternaria* spp.)

Primers *for A. solani:*

Occurrence of the F129L mutation in *Alternaria solani* populations in Germany in response to QoI application, and its effect on sensitivity

J. H. Leiminger*, B. Adolf and H. Hausladen

Effect of the F129L Mutation in *Alternaria solani* on Fungicides Affecting Mitochondrial Respiration

J. S. Pasche, L. M. Piche, and **N. C. Gudmestad,** Department of Plant Pathology, Fargo 58105

ABSTRACT

Pasche, J. S., Piche, L. M., and Gudmestad, N. C. 2005. Effect of the F129L mutation in *Alternaria solani* on fungicides affecting mitochondrial respiration. Plant Dis. 89:269-278.

Primers *for A. alternata:*

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Resistance to azoxystrobin in *Alternaria* isolates from pistachio in California

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Alternaria late blight of pistachio caused by *Alternaria alternata, Alternaria tenuissima,* and *Alternaria arborescens* is one of the most common fungal diseases of pistachio in California.

Primers: **AF** (5-ACA CTG CTT CAG CAT TTT TCT TCA TAG-3) and **AR** (5-TTG TCC AAT TCA TGG TAT AGC ACT CA-3)

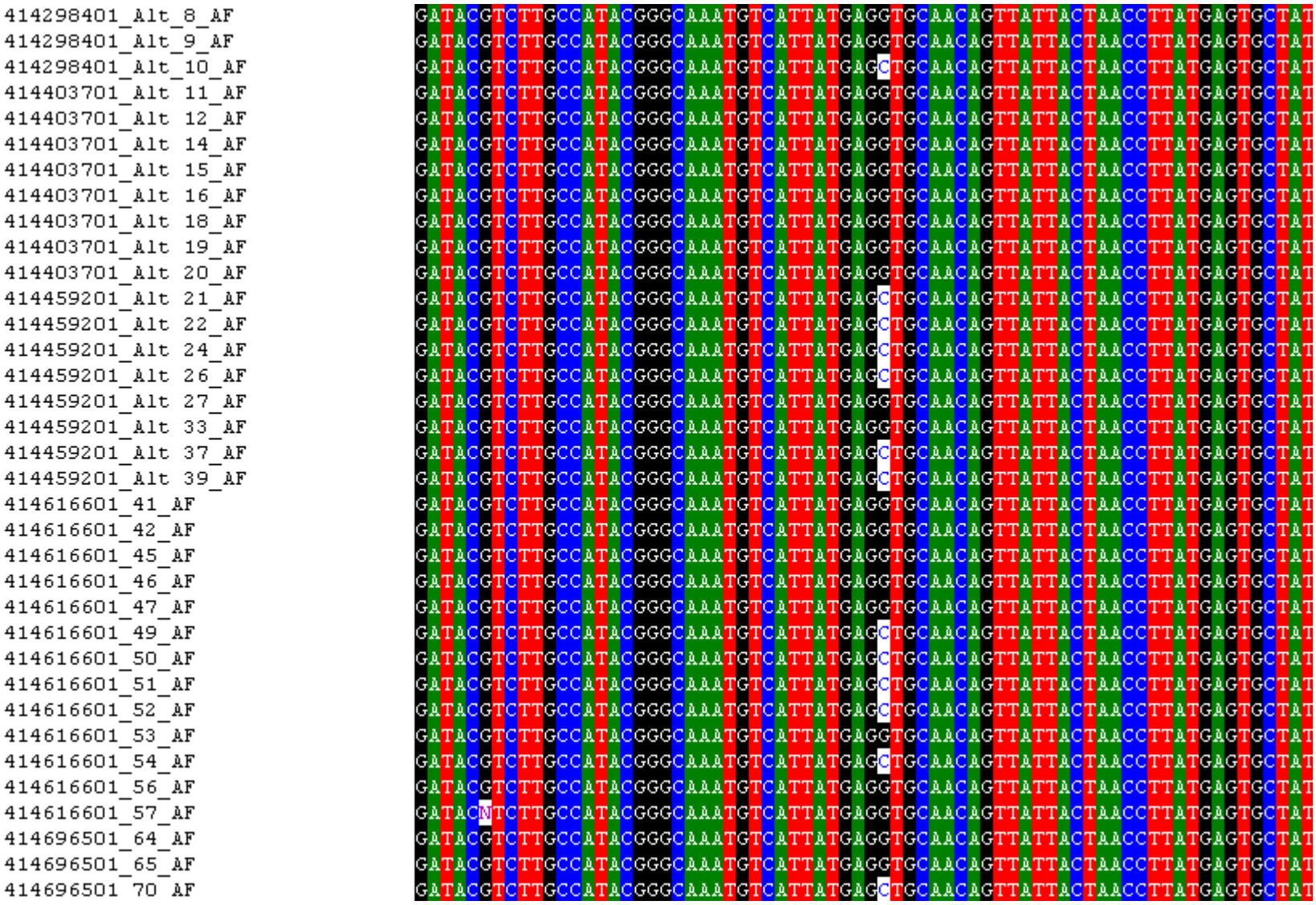
A. alternata:

A single point mutation in the cytochrome b (cyt b) gene (G**G**T → G**C**T), causing a change of Gly → Ala at codon position 143 (G143A).

Strobilurins have a single-site mode of action → G143A causes resistance.

While isolates carrying F129L or G137R express moderate resistance to QoIs, isolates with G143A express high (full) resistance.

Results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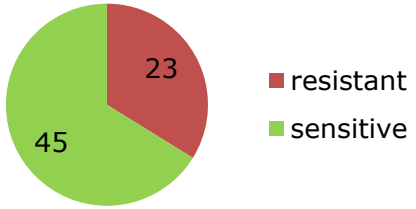
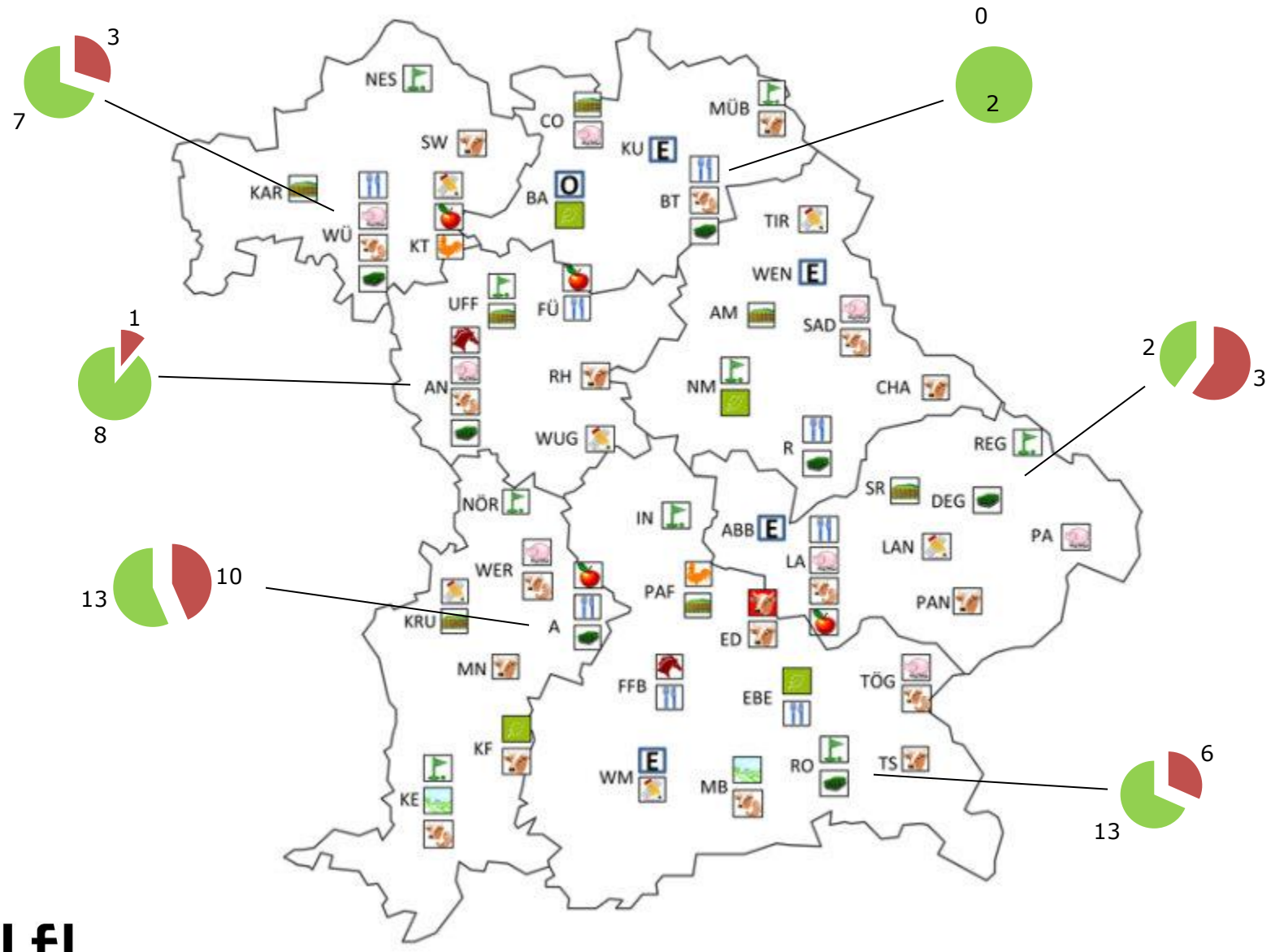
Results

total	*A. alternata*	*A. solani*
133	99	2
100%	74,4%	1,5%

sequence analysed	resistant	sensitive
(A. alternata)		
68	23	45
100%	33,8%	66,2%
sequence analysed		
(A. solani)		
2	1	1
100%	50%	50%



Standorte der Fachzentren, Abteilungen Prüfdienst und Abteilungen Gartenbau



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