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Cover: Calliandra calothyrsus Meisn. is a multipurpose shrub which belongs to the family Leguminosae (Fabaceae) and subfamily Mimosoideae, and is widely grown by farmers in East Africa and humid/subhumid regions worldwide. The nitrogen-fixing species grows well in a wide range of soils and is tolerant to acid soils. The species is often planted in hedgerows, and leaves are pruned and incorporated into the soil for soil fertility improvement and erosion control. The leaves also provide excellent fodder, which acts as a protein supplement for livestock. The stem provides excellent firewood for cooking and poles for light construction. The beautiful pink flowers offer forage for bees, and calliandra is often used as an ornamental since it flowers throughout the year, depending on local climate. Calliandra leaves are also rich in active polyphenol. Ndufa et al. (1352–1362) hypothesized that mixing high-quality fallow residue with polyphenol-rich legume material of *C. calothyrsus* may result in slow nitrogen release and formation of complexes with proteins and carbohydrates that are resistant to microbial degradation, and hence increase soil organic matter and long-term benefits of such systems to maize yield. Photo credit: Prof. Dr. Georg Cadisch.

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Lisa A. Rossbacher

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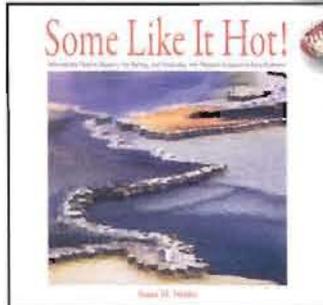
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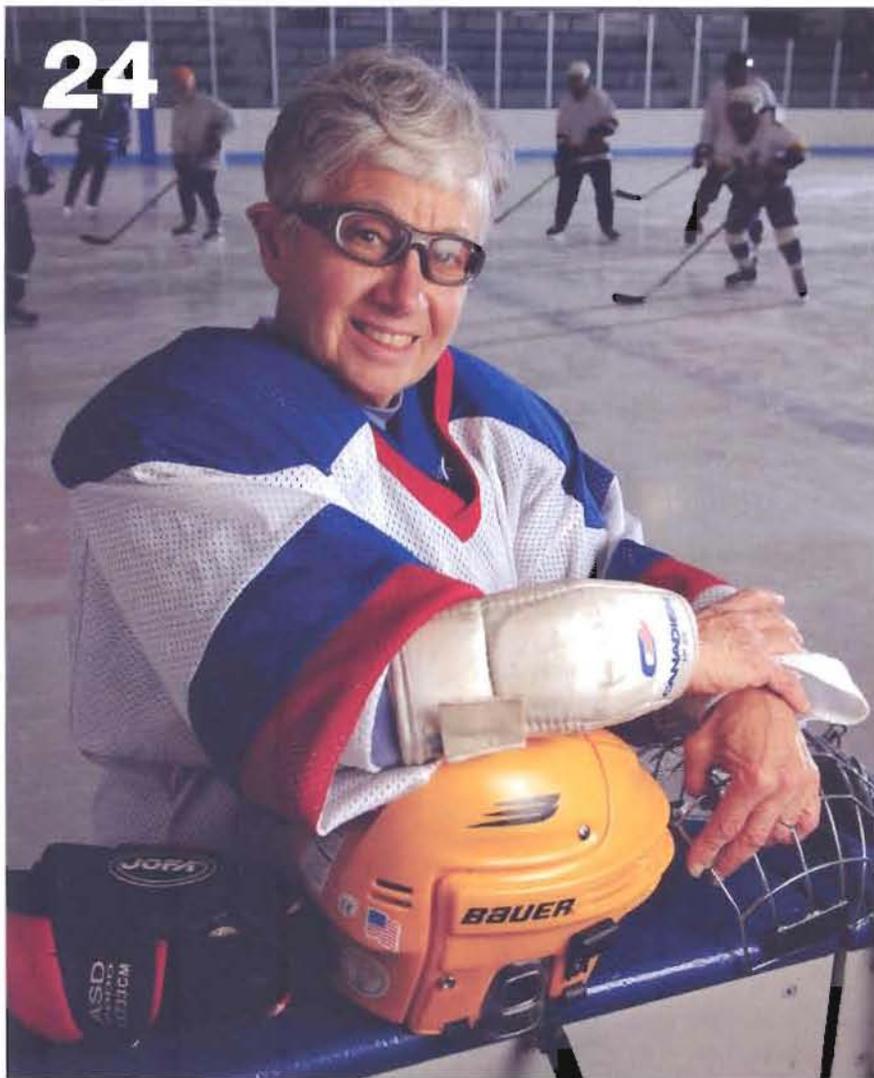
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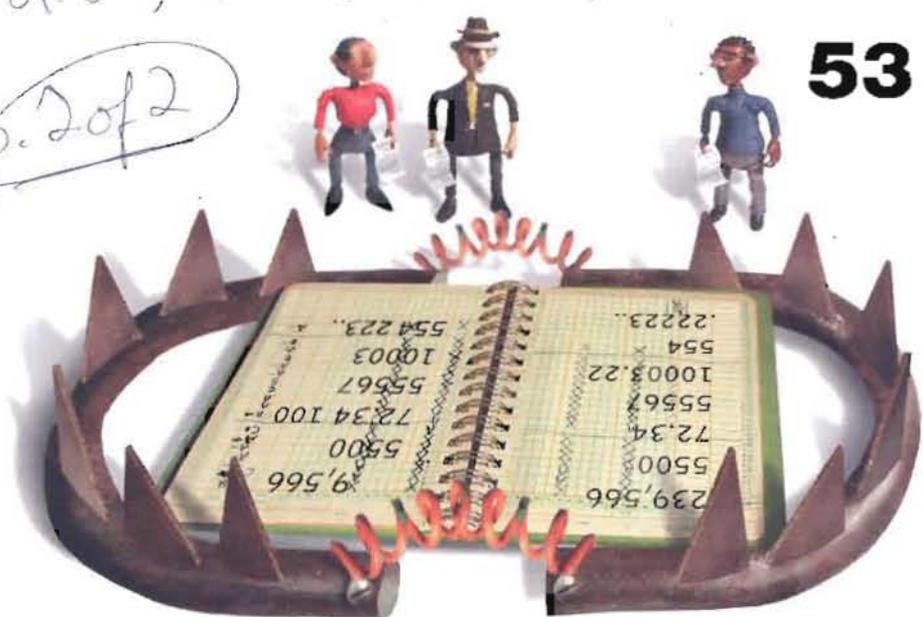
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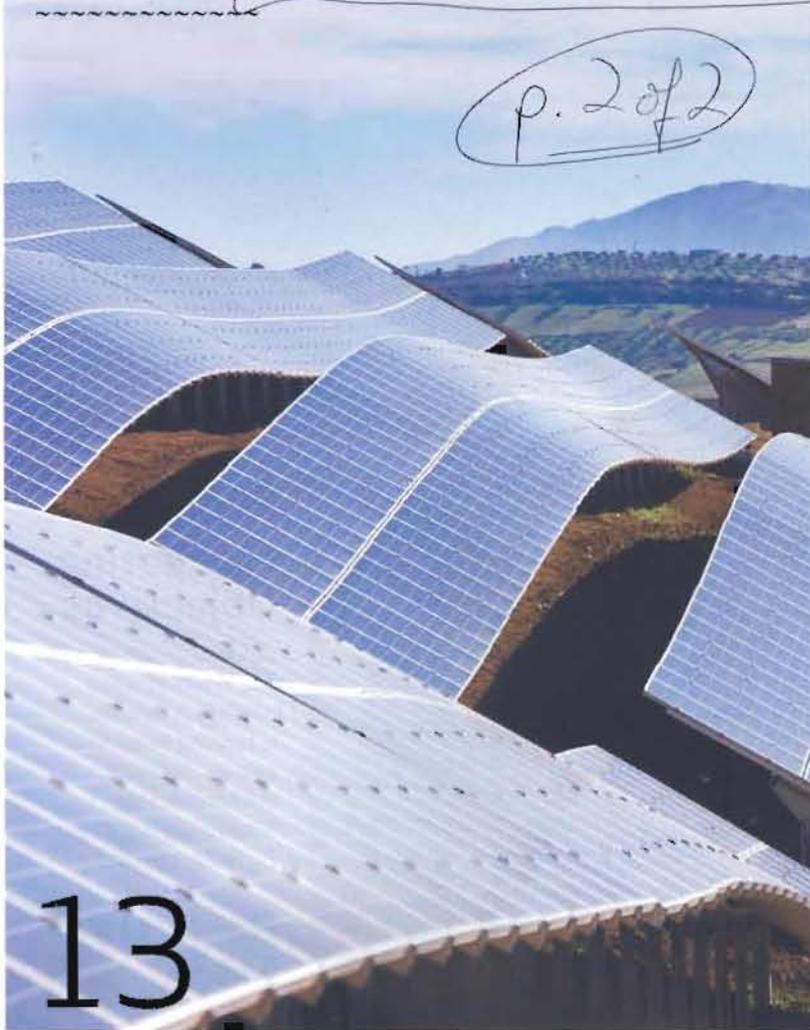
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On the Cover: The University of Kentucky Mucking Team competed this past March, in Rolla, Missouri. This competition consists of old school mining techniques. The events pictured are jack leg drilling (bottom photo), and band steeling (top right photo). Top Left Photo: The University of Kentucky Mining 699 class (Blasting Instrumentation) toured a local construction blast last spring. The blast took place just outside of Nicholasville, KY and it was a basement shot for a new elementary school. The class participated by setting up a geophone correctly and incorrectly to see the importance of proper geophone placement, and ground coupling. The class was lead by Dr. Braden Lusk and accompanied by Ralph King. Photos by Joshua Hoffman.

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ABOUT THE COVER

In 2002, the Fish and Wildlife Service restored the wetlands in the Town of Linn's Community Nature Park by removing the drain tile system. This pond was a result of that restoration activity. The photo was taken in February 2009 by Jim Yunker (Tallgrass Restoration) on a winter hiking tour for residents of Linn. See story on page 36.



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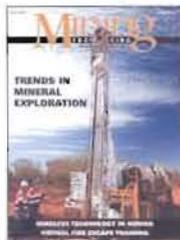
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VOL. 61, NO. 11

NOVEMBER 2009

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The mill at Coeur Alaska's Kensington mine. The U.S. Supreme Court has ruled that Coeur and federal agencies went through the appropriate process to arrive at the decision to grant the company the right to place tailings from the milling operation in a lake near the site. Environment groups had argued that the decision violated the law and the permit should be withdrawn.

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