Soil Science Society of America (SSSA) Certified Professional Soil Scientist (CPSS) and Life-Long Learning
Soil Science Society America

- Began in 1936
  - Publishing
    - Journals
    - Books
    - Magazines
  - Meetings
    - Annual
    - Specialized
  - Membership – 6,000+
  - Certification -700+ and Licensing – 10 States
  - Education - online
Certification and Licensing

• Certified Professional Soil Scientist (CPSS)

• Licensing

• 10 States – New Hampshire, Maine, Minnesota, North Carolina, North Dakota, South Carolina, Tennessee, Texas, Virginia, Wisconsin

  • SSSA provides the exams
    • Fundamentals
    • Professional Practice

  • Must follow the states rules
    • Check their website
Certification

“A voluntary process, by which an organization grants recognition to an individual who has met certain predetermined qualifications or standards.”

- (The business of certification, Knapp, Knapp)
Certification

Identifies the people with the professional expertise that someone needs

CPSS – defines the profession Soil Science
Value

Creditability
  • Professionalism (#1 reason)

Opportunities
  • Jobs, advancement

Motivation
  • Continuing education (life-long learning) and Ethics

Ability
  • Performance (certified out-perform non-certified)

Validation
  • Peers/profession (SSSA) says you are ...
Certified Professional Soil Scientist (CPSS)

• Exams
• Education
• Experience
• Ethics
Exams

• Fundamentals in Soil Science
• 6 Competency Areas
  • soil – chemistry and mineralogy
  • fertility and nutrient management
  • physics
  • genesis, morphology and classification
  • biology and ecology
  • land use management
CPSS Education and Experience

• BS Degree in Soil Science (or closely related) and 5 years of experience
  • Coursework – 15 semester credits in soils of which 7 upper level

• Or, a MS/PhD plus 3 years

• Once Certified 30 hours of continuing education every two-years
Code of Ethics

• All sign and agree to uphold

• Duties and responsibilities to:
  • Clients
  • Employers
  • Fellow professionals
  • Themselves
  • The Profession
  • General Public
Life-Long Learning

• Do we ever really stop learning?

• Continuing Education
  • 30 CEUs (continuing education units)
  • Two-year cycle
  • Professional Meetings like NOWRA sessions
  • Online education (live or self-paced modules)
  • Serving on Committees/Boards - service
SSSA Education

• www.soils.org/education
• www.soils.org/certification
Meet DeAnn Presley, CPSS

- Professor at Kansas State University
  - Research and teaching Soil Science
- Consultant – onsite wastewater
Why be a CPSS?

Top Five
1. Credibility among professional groups
2. Validation – meeting standards of performance
3. Life – Long Learning – continuing to gain knowledge and skills
4. Ethics requirement
5. Part of a network
State organizations, Kansas example

• Kansas Small Flows Association (KSFA)
• Kansas Groundwater Association (KGWA)
• Both are comprised of:
  • Regulatory agency staff
  • Small-business owners who install systems
  • Sales staff from companies who sell supplies and equipment
  • Consultants who design systems
  • Extension educators
• All of these are potential clients of a CPSS
Interacting with other professions

- Professional Engineers and Professional Geologists
- Can design systems, create plans, are recognized by states as being able to stamp a set of drawings
- CPSS is a way to bring soil science to that same professional level
- Holding a CPSS is a sign of a person that has taken multiple soil science courses, as mentioned earlier
Life-long learning

• Learning doesn’t end with studying for the certification tests
• Continuing education is required to maintain the title CPSS
• Can meet this through attending professional meetings, online education, and self-study through reading
• Can submit information online through the SSSA website
• Convenient for people who work 8-5 (and beyond, when the weather is nice)
CPSS and Ethics

• Onsite wastewater systems/professionals provide critical services
  • Protecting human health
  • Environmental protection
  • Recharging groundwater
  • Adding economic value to a home or planned construction site

• Putting the right system in the right soil is the proper way to deliver these services

• Putting the wrong system in the wrong soil is irresponsible and unethical and bad for business in the long-run
Environmental protection
Groundwater recharge
Gleyed soil matrix = high water table
Understanding limiting conditions in soils
Right systems in the right soils starts with a soil description
Is there such a thing as a perfect soil for a wastewater system?
Life-long learning
Describing soil properties takes practice
CPSS Network

• You can be a member of lots of organizations, but CPSS is a certification that must be earned
• Being a CPSS makes you part of a network of other highly-trained soil scientists
• We refer work to each other—I won’t take on a project unless I’m the right person for the job, and I refer people to other CPSS routinely
• Website where you can search for CPSS
• I know that to pass the CPSS exam, they are highly-trained, highly-motivated, and have ethical practices
• We trust each other and can ask each other for advice
We stick together
Trust and Professionalism

• “Hey, have you seen this before?”
• “Can I run this idea past you?”
• This is the greatest value: A network of trusted, highly-trained, professionals

• Thank-you for your time and attention!
Thank you

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