

Please provide a 1-3 sentence description of your organization.

**Iogen** is a biotechnology company with advanced cellulosic ethanol production technology and is also a manufacturer of commercial enzymes for the pulp and paper, livestock and textile industries. The company operates a million gallon capacity cellulosic ethanol demonstration facility which has been operational since early 2004. Construction on the first commercial scale facility is expected to commence in 2008.

Relative to bioenergy, what are your top problems and which research products (or researchable questions to which you need answers) would help you solve these problems?

For our industry to become a meaningful provider of transportation fuel in the US, the availability of a reliable and sustainable supply of several hundred million tons of biomass at a reasonable cost is essential. Iogen sees this as most significant potential impediment to a rapid roll out of the cellulosic ethanol industry. Other biomass dependant energy technologies are similarly impacted.

What do you think ARS's top bioenergy research priorities should be (no more than five, please)?

Determine best practices for the sustainable removal of agriculture residues.  
Develop cost efficient means of harvesting, storing and transporting biomass.  
In collaboration with the private sector improve and/or develop annual and perennial varieties of dedicated biomass crops for a variety of growing conditions.  
Some invasive species such as arundo donax are exceptionally robust and promising as a high yielding, drought tolerant biomass feedstock. Research on effective containment is required.

**Additional customer service questions:**

What might ARS do to serve its customers/stakeholders better?

Increasingly involve the private sector to expedite early and rapid commercialization of promising ARS research. Perhaps at the outset of research initiatives, collaboration with the private sector should be sought.

What, in particular, about ARS would lead you to recommend ARS to someone else looking for similar research products?

Given the immense human and physical resources at it's disposal, ARS can make an ideal partner for cost effective collaboration with the private sector resulting in synergies and substantial saving to both parties in the process of moving the products of research into widespread successful application.