



Abstract

**Background :** *Platycodon grandiflorum* is perennial plant of the campanulaceae family. Platycodon root contains abundant pharmaceutical substances and is widely used as a food and a medicinal herb. Nowadays, safe food is one of the biggest concerns. In addition, as well-being becomes a daily routine, more and more people are looking for eco-friendly foods. Plants that use the roots of bellflower, ginseng, and deodeok for medicinal or edible purposes grow in the soil for a long period of time. Accordingly, many consumers have paid attention to the safety of medicinal crops. Organic refers to agricultural products grown on land without the use of synthetic pesticides and chemical fertilizers, and is being applied to medicinal crops recently. This study was conducted to determine the cultural environment and soil chemical property of bellflower.

**Methods and Results:** The survey areas were Gyeongbuk 2, Jeonnam 2, Jeonbuk 1, Chungbuk 1, and Jeju Island 1. Survey method was site visits and interviews, and soil was collected in the area. Average number of years of growing bellflower in the surveyed area was 3 years, and the cultivated area ranged from 0.1 ha a to 1 ha. Also, the soil chemistry did not fall within the appropriate range. For soil management, organic compost was used or cultivated naturally.

**Conclusion:** Bellflower grows well in well-drained and nutrient-rich soil. When planted for more than 3 years, bellflowers have problems with continuous cultivation, so soil management is very important. Most of the farms investigated were cultivated in a natural state, and weed control was important. It is expected that many organic bellflowers will be produced and established as a healthy and safe food.

방법 및 내용

유기농, 무농약, 친환경이란?

- 유기농과 무농약은 모두 **친환경**이라는 큰 범주안에 포함됨
- **유기농농산물**은 3년이상 농약과 화학비료를 전혀 사용하지 않은 땅에서 친환경적으로 재배한 농산물
- **무농약농산물**은 농약은 전혀 쓰지 않지만, 화학비료는 권장량의 1/3이내로 사용

조사지역

- 경북 2 농가(상주, 안동)
- 전남 2 농가(해남, 순천)
- 제주 1 농가
- 전북 1 농가(진안)
- 충북 1 농가(영동)

재배현장



조사결과

표 1. 지역별 유기농도라지 인증농가 현황(2021년 8월 기준)

지 역	농가수 (호)	재배면적 (ha)	인증량 (톤)	지 역	농가수 (호)	재배면적 (ha)	인증량 (톤)
경 기	22	4.35	48.34	전 남	11	5.81	20.30
강 원	32	18.91	24.44	경 북	12	2.36	10.91
충 북	13	3.51	20.80	경 남	12	8.30	1.53
충 남	5	0.95	5.86	제 주	3	2.38	46.10
전 북	13	1.27	3.08	계	123	47.84	181.36

표 2. 조사대상 농가 재배기술

농가명	파종방법/ 시기	판매전 재배 기간	토양관리	제조관리	유기 자재 사용	기타
진안	종자/봄	3년	윤작(호밀, 수단그라스), 휴경	손제조	○	6~7월 적심
순천	종자/가을	3년	부엽토	손제조	×	질소↓
해남	종자/봄	6년	무경운, 윤작(수단그라스, 헤어리비치), 휴경	예초기	×	옻겨심기, 자연농법
상주	육묘/봄	3년	윤작(감자, 콩), 자가퇴비	멀칭	○	종자코팅
안동	종자/봄	3년	자가퇴비(유기축분+부엽토+쌀겨 등)	경운	○	—
영동	종자/봄	3년	윤작, 휴경	예초기	×	자연농법
제주	종자/초여름	3년	윤작(감자, 당근), 자가제조 액비	손제조	○	유기농자재 다량사용

표 3. 조사대상 재배지 토양 화학성.

지 역	pH (1:5)	EC (dS/m)	유기물 (g/kg)	유효인산 (mg/kg)	치환성양이온(cmol+/kg)		
					K	Ca	Mg
적정범위	6.0~7.0	2 이하	20~30	300~550	0.5~0.8	5.0~6.0	1.5~2.0
전북 진안	6.1	0.5	28	191	0.58	4.30	1.10
전남 순천	5.8	0.3	36	215	0.50	2.30	0.50
전남 해남	5.9	2.9	33.8	559	1.50	8.00	3.20
경북 상주	5.3	0.7	21.4	106.6	0.50	0.90	0.70
경북 안동	4.9	0.6	13.8	878.0	0.50	2.30	0.50
충북 영동	6.1	0.5	26.1	352.2	0.60	4.80	1.30
제주도	6.4	0.6	92.6	77.6	0.90	11.2	1.90

Conclusions

➢ Bellflower grows well in well-drained and nutrient-rich soil. When planted for more than 3 years, bellflowers have problems with continuous cultivation, so soil management is very important. Most of the farms investigated were cultivated in a natural state, and weed control was important. It is expected that many organic bellflowers will be produced and established as a healthy and safe food.

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